

PKADS: ONLINE AD MANAGEMENT SYSTEM

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This Report Presented in Partial Fulfillment of the Requirements for the
Degree of Bachelor of Science in Computer Science and Engineering

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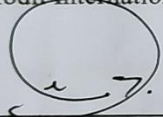
APPROVAL

This Project titled “PKAds: Online Ad Management System”, submitted by Md. Mehedi Hasan, ID No: 191-15-2738 and Afrid Shariar Fahim, ID No: 191-15-2743 to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 7th February 2023.

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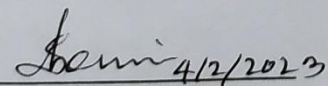
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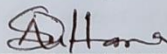
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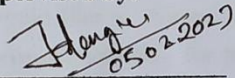
We hereby declare that, this project has been done by us under the supervision of **Naznin Sultana, Associate Professor, Department of CSE** Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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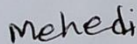
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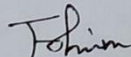


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ABSTRACT

A web-based ad management system is a tool that allows businesses and organizations to efficiently manage their online advertising campaigns. It provides a central platform for creating, scheduling, and tracking the performance of ads across various websites and digital platforms. With a web-based ad management system, businesses can streamline their ad operations, optimize ad spend, and measure the effectiveness of their campaigns in real-time. This system can be accessed from any device with an internet connection, making it easy for businesses to manage their ads from anywhere. It is an essential tool for businesses looking to effectively reach their target audience and achieve their advertising goals. In this system we create a website where any ad agency can easily store their agents and clients information and also update their ads campaigns schedules. We create a bills section where ad agency store and check their previous advertisement deal. Our project helps ad agency's to make a good deal with clients.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

This project PKADS is management based project, which register for Advertisement in various topics such as newspaper, online shops and social media etc. This project is useful for clients because they can easily apply for advertisement for their business in a minimum application fees. This system will help to control the ads that are shown on a website. It will also help to track the results of the ads and make changes accordingly. The system would also be beneficial to users who are looking for information about specific products or services. By tracking the performance of each ad, the system would be able to provide more targeted results that are more relevant to the user's needs. This would make it easier for users to find the information that they are looking for and help them to make more informed decisions about the products or services that they are interested in.

1.2 Motivation

There are some motivations for our ad management system:

Efficiency: This ad management system can help to streamline the process of creating, managing, and analyzing the performance of online advertisements. This can help to save time and resources, and allow businesses to focus on other important tasks.

Targeting: This ad management system can help businesses to target their advertisements to specific groups of users based on factors such as location, demographics, interests, and behavior. This can help to increase the effectiveness of the advertisements, as they will be shown to the people most likely to be interested in them.

Tracking and analysis: This ad management system can provide detailed tracking and analysis of the performance of advertisements. This can help businesses to understand which advertisements are working well and which ones are not, and make informed decisions about how to optimize their ad campaigns.

Cost savings: This ad management system can help businesses to optimize their ad campaigns in order to maximize their return on investment. This can help to reduce costs and improve the overall efficiency of the advertising efforts.

Improved customer experience: By targeting advertisements to the right audience and optimizing ad campaigns, businesses can improve the overall customer experience by showing relevant and useful advertisements to their users.

1.3 Objective

An objective for this ad management system could be to improve the efficiency and effectiveness of an organization's advertising efforts. This could involve streamlining the process of creating, placing, and tracking ads, as well as optimizing ad spend and targeting to maximize the return on investment.

The objectives of this project are as follows: 1) To develop and implement this ad management system that will maximize the reach and impact of our advertising campaigns while minimizing costs.

2) This ad management system is to help users effectively reach, engage their target audience with their advertising efforts, save all agents and clients details.

1.4 Expected Outcomes

We believe that our web-based advertising system should be able to help businesses reach their desired audience, increase brand awareness, and drive conversions through the use of targeted, relevant advertisements. Our project helps ad agency's to make a good deal with clients and the ad agencies can easily store their agents and clients information.

1.5 Report Layout

Chapter 1: The project's introduction, inspiration and goal have all been covered very first.

Chapter 2: This chapter shows background process

Chapter 3: This chapter shows Use case modeling, flow chart diagram.

Chapter 4: We can know about Front-end design, back-end design, implementations requirement.

Chapter 5: Database implementation, Front-end design, test was described.

Chapter 6: This chapter covered Sustainability and the Social Impact on Society.

Chapter 7: The scope of our project and its prospects for further development to buy our api.

CHAPTER 2

BACKGROUND

2.1 Terminologies

Ad management system is a server that stores and serves advertisements to be displayed on websites or apps. A piece of code that is inserted into a web page or app to display an advertisement. A specific area on a web page or app where an advertisement is displayed. An instance of an advertisement being displayed on a web page or app. The ratio of users who click on an advertisement to the number of times the ad is displayed. The cost of an advertisement per user click. The cost of an advertisement per thousand impressions. The process of displaying advertisements to specific users based on factors such as demographics, interests, or location. The process of limiting the number of times an advertisement is displayed to the same user. The practice of generating fake ad impressions or clicks in order to defraud advertisers.

2.2 Related Work

Literature Review: A literature review for an ad management system would typically involve researching and evaluating existing research and publications on the topic of ad management and related areas. This could include academic papers, industry articles, and case studies, among other sources.

[1] Authors of had said that they develop an analytical approach to modeling consumer response. They find that consumers are equally likely to click on banner ads placed early or late in navigation path and that exposures have a positive cumulative effect in inducing click-through in future sessions. They seek to model advertising response in digital environments where consumers navigate through content laden Web sites with embedded banner advertising. The response variable of interest is whether or not a consumer clicked on a banner ad while navigating the Web site. The key effects they test in their model are such as Intersession Exposure Effects, Banner Location in Navigational Path, Exposure Effects Across Sessions, Prior Session Exposures and Future Session Clicks, Time Since Last Click in Prior Sessions, Repeat Visits etc. They construct the explanatory variables as follows. Banners is the number of times consumer i has been exposed to an advertiser's

banner ad in session s so far. They include a quadratic term of banner ad exposures. Click occurrences are rare events, pooling the data offers distinct advantages over modeling each sponsor separately. They tested for overall homogeneity of both sponsors and concluded that pooling was appropriate. They tested to see if the data supported specifying the explanatory variables as random. In this paper, they modeled the clickstream of consumer responses to banner ads at an advertiser supported Web site with mandatory visitor registration.

[2]Authors of had said that provides an approach to manage an ongoing Internet ad campaign that substantially improves the number of clicks and the revenue earned from clicks. This paper describes the main players in the Internet advertising ecosystem. This paper despite the obvious attractiveness of a performance-based payment scheme. The better the knowledge of the traffic available ton ad-network, the better its ad targeting algorithms get, and hence lead to increased clicks. They said that publishers contract with more than one ad-network to create some competition among these partners. Then the ad-network pays a publisher a fraction of revenue accrued from clicks that were generated on the ads displayed on the publisher's site. Then the publisher enforces a click-through-rate constraint on the ad-network. Their target is to get constraint essentially balances two opposing goals of the publisher, one is generate as much revenue as possible from ads, and the other one is keep the website content interesting so that visitors continue to patronize the website. In this paper they said that the ad unit could simply collapse and the publisher could use the extra space for displaying additional content. In this paper the advertisers do not impose any such constraint and they analyze the problem for each publisher separately. Their solution is to problem consists of two parts such as a step involving data analytics and a follow-up step involving decision analytics.

[3]Authors of had said that they propose a novel technique of adapting online advertisement and then a user's short term interests in a non-intrusive way. Their constant monitoring of a user's online habits, together with the trend to centralize this data. In this paper they implemented a dynamic advertisement selection system able to deliver customized advertisements to users of an online search service. Their system is able to

improve the average click-through rate substantially compared to random selection methods. In this paper they propose a less intrusive approach such as a low-data oriented customization sufficient to capture the short-term interests of users of Web directory and search services. And they have implemented an advertisement server system for short-term advertisement customization. And their target is to measure the level of adaptively that is possible with minimal data. In this paper they plan for an unobtrusive advertisement system called ADWIZ. They collect implementation details summarize some simple, preliminary experiments and then they conducted and close with comments on future and related work.

[4]In this paper their main target is Location-Based Advertising, LBA, Multimedia Messaging Service, MMS, mobile communications, mobile consumer behavior, Short Messaging Service, and SMS. A structural model was formulated to test their effects on consumer perceptions of entertainment, informativeness and irritation. Their target result is to show that multimedia LBA messages lead to more favorable attitude, increase the intention to use the LBA application, and have significant impact on purchase intention. LBA involves the provision of advertising messages to cellular subscribers based on their location. They use LBA so that the advertisers could reach consumers when and where they are most likely to make a purchase and deliver advertising messages. Their volume of multimedia messages sent in both the USA and UK has been growing steadily over the recent years (SYBASE, 2007; MDA, 2008).When they begin to see research attempts that look into privacy issues pertaining to LBA (Xu and Toe, 2005) and attitude toward LBA (Bruner II and Kumar, 2007).In this paper their targeted work is higher level of entertainment results in more favorable attitude toward LBA, higher level of entertainment results in higher assessment of the value of LBA, Higher level of informativeness results in higher assessment of the value of LBA, and higher level of irritation results in lower assessment of value of LBA.

[5]In this paper their target is to adaptive personalization of web advertising. In this paper the ADROSA system for automatic web banner personalization, which integrates web usage and content mining techniques to reduce user input and to respect users' privacy. Author said that advertisements often placed on web pages as vital and profitable parts of

presented content should also be considered for personalization. They try to increase effectiveness if the right person should receive the right message at the right time. In this paper the ADROSA system described the designed to be used in the portal model of advertising. They use Ad ROSA system (Advertising Remote Open Site Agents) to solve the problem of automatic personalization of web banner advertisements and with respect to user privacy and recent advertising policies. Their idea of personalization based on “user-friendly” data acquisition makes the Ad ROSA system applicable in most open-access. Their system works in the portal model of advertising.

[6] Author said that they presents an intelligent system of management of social network advertising. Their project based on data mining techniques to automatically produce ads. Their system carries out automatic modifications and improvements of ads. In this paper they define an adaptive mechanism for the automatic production of online advertising. They propose an intelligent system that automates the generation of advertising on Facebook. Their system carries out an automatic modification and improvements of ads manually made by users. This system use a set of algorithms of classification and optimization. Their system generates online ads on Facebook based on the performance of the ads and the behavior of target users on this social network. Their system takes the statistical data to learn and to optimize the ads. Their system is implemented using mainly Java to implement the bridge to export. They import data from Facebook, the genetic algorithm, the mechanism for resizing images, the text generation, the image search on the Internet, and the communication between the system and SVM, in combination with MATLAB. In this paper they have used different libraries, the main ones are: “gap” in the case of genetic algorithms, “mat lab control” to implement the communication between Java and MATLAB, “Open NLP” to develop the text recognition, and “selenium” for Java to develop the bridge. They also used the API of Google for Java to implement the module and to download images from Internet “awt” to resize images and SVM “feat” through the MATLAB API, to implement the image classification.

[7] Author said that they present Ad Next, a visit-pattern-aware mobile advertising system for urban commercial complexes. This system can provide highly relevant ads to users by

predicting places that the users will next visit. They develop a probabilistic prediction model that predicts users next visit place from their place visit history. They collect dataset from COEX Mall, the largest commercial complex in South Korea and implemented an initial prototype of Ad Next with the latest smartphones. This system works for Mobile advertising, Sequential visit patterns, Prediction models, Wi-Fi localization and User survey. This system can send spatially and temporally relevant ads based on such information. They predict the next visit place by learning sequential visit patterns of commercial complex users in a collective manner. They show the prediction accuracy of the next visit place prediction model using Bayesian networks. Ad next by showing the initial evaluation results. In this paper they can predict the next visit place of COEX Mall users with about 60% accuracy.

[8]In this paper they works with online social advertising via influential endorsers. This paper was supported by the National Science Council of Taiwan under grant NSC 97-2410-H-009-035-MY2. In this paper they view techniques and theories related to their work and highlight their contribution in extending the knowledge of social advertising. At first they review the concept and techniques of social network advertising and then followed by social influence marketing and the theories of dynamic social impact and celebrity endorsement. In this paper they developed an advertising mechanism based on social endorsers that utilizes the concept of social influence and then celebrity endorser theories and the social network analysis technique to measure the degree of an individual's social influence for diffusing advertisements over online social networks. This system framework of their proposed social endorser-based advertising approach—the SEAD system. They used a category tree structure to clarify the preference distribution of users and the category definition of the advertisement.

[9]In this paper they design for an interactive television advertising system. This system developed an information systems artifact that incorporates models of interactivity into a design for an advertising system architecture. This paper was provided in part by the US Department of Education (DOE) through the Graduate Assistance in Areas of National Need (GAANN) program. Their main objective in testing the stated hypotheses was to

determine if the expected effects could be detected rather than estimating their magnitude. The results of this paper imply that traditional TV advertisement should be redefined to embrace emerging dynamic interactive AD formats.

[10]In this paper they provides the insights on mobile ad targeting, delivery, tracking, and performance measurement. They presents the application examples of the system. They works with wireless advertising, mobile advertising system, mobile commerce, electronic commerce and digital advertising. They focuses on wireless advertising and reports a wireless advertising system in terms of its supporting business process, functions and system architecture. This system as an open source system to allow mobile advertisers to use it as a wireless advertising market place. HIS system supports a systematic workflow process for wireless service businesses (or publishers) to interact with wireless advertisers to support the necessary activities in wireless advertising. They provides both online and mobile user interfaces.

[11]In this paper a distributed synchronous platform is proposed called iMAS. This system proposes to use an open source platform independent approach to provide the services and interaction with the iMAS system. They presents the iMAS framework for intelligent and mobile advertising data model. This system is using a vehicular transport system to target consumers in a particular location. This paper follows the iMAS system framework is presented followed by a discussion on iMAS and Concept Technology. The iMAS system works by localizing information to a specific geo-location.

[12]Author said that they works with online property advertising system. Their system is based on the web-based online property advertising system. In this system they can be deployed in Government and Non-Government Sectors in regard of to selling and buying property. Their main benefit is to save money and time. This system is a web-based Online Property Advertisement Solution (OPAS) for Pakistan. In this paper they focus on Access Home Page of Web System, Favorite Property, User Management, Property Management, and Contact information. They develop a trusted web-based system in where user can buy and sell their property via online. In this system the user see the property location on map and save their valuable time. In this system they work with Database, Online Property,

Online Searching, Process Model and Security. The main motivation is to, facilitate the end users by providing more information about their concerned properties. In this system their software resources are such as Microsoft 7 Home Premium operating system, SQL Server 2008 Management Studio for database tools, HTML, Asp. Net 4.0, C#, MS Visual studio 2010 for development tools. Hardware resources used in their work such as Intel(R) Core(TM) i3-2350M,2.30 GHz processor,500 GB hard disk,4.0 B RAM. Their software design is to determine the relationship between the different components and also classify the components of colonies. This system provides the required information regarding the online posted property. The main benefit of this system is to save cost and time. Security of the system, analyzed in various phases, show the promising results.

[13]In this paper they propose a classification framework of data requirements and mechanisms of interactive Web advertising and architecture for interactive Web advertising based on a proposition. This system they expose advertisements based on situations such as customer data, type of visited homepages, special marketing programs. In this paper they present a classification framework of interactive advertising to describe the data requirements and mechanisms and also a system architecture for the guidance of building interactive Web advertising system. They collect data from users such as online registration form, questionnaires, and or collect messages from bulletin board system.

[14]In this paper they propose a data mining framework that utilizes the concept of social network for the targeted advertising of products. This system infer the probabilities of customer's liking a product category from transaction records. In this paper they construct a targeted advertising system and evaluate the proposed approach by using real email logs and library-circulation data. They introduce the concept of social network and define the problem of mining social network for targeted advertising. In this paper they investigate the problem of targeted advertisement in an environment with the following features such as a database that contains customer's connectedness is available, A database that contains past customers' transaction records is available, Mining cohesive subgroups from social network and targeted advertising based on cohesive subgroups. They discovered cohesive

subgroups are used to identify a shortlist of prospective customers for a give product and for which they have developed a comprehensive algorithm.

[15]Author said that they relooks at the advertisement industry with upcoming technologies in online targeted marketing with the help of patent information. They resulted in approximately 3300 patents. Their bibliographic details such as Title, Abstract, Priority dates, Assignee names, Inventor names, Family members etc. was collected and stored in spreadsheet for further processing AND Missing details were filled in from other data sources such as spacemen and Derwent Innovation Index. They have to take into consideration mergers of various organizations. In this paper their information from patents can be used to reveal different trends and emerging areas related to web based targeted advertisements.

[16]In this paper they work with Multi-agent System for Web Advertising. Their main aim is a personalized advertising system is to provide advertisements. Their content features, in the form of terms, are extracted from HTML source of publishers pages. This advertising system was designed using a multi-agent architecture. This system personalizes the online advertising using web usage and content mining. This system is more flexible, scalable and open for new functions such as the sophisticated scheduling mechanisms.

[17]In this paper presents the basic technologies and content aggregations for specific applications of location based advertising. This system is being developed under the FP5 project ELBA and applied to three different areas such as push advertising, pull advertising and context sensitive advertising. Their basic technologies for location based services and especially for location based advertising are available there is still a long way to go.

[18]In this paper their online advertisements provide a convenient platform for spreading malware and malicious agents take advantage of this skillful attraction and then redirect users to malicious sites that serve malware. Their design of web applications and widgets should be thoroughly verified before allowing their use in a production environment. In this paper the interface communication channel between an installed widget and a parent website should be monitored to catch the traffic redirection. They have covered the

essential dynamics of advertising and the attack strategies used to distribute malicious advertisements across domains.

[19] Author said that target is in sight- Social Networking. This paper show how Facebook, has incorporated advertising into its site and highlights the methods employed to aid companies in reaching their customers in innovative ways. In this paper they provides an overview of advertising on one particular social networking site- Facebook. This system advances in expertise and technologies, such as integration of GPS systems into Facebook enable more advanced targeting. Their target is to creating powerful social media campaigns are possible with Facebook's Ad platform.

[20] In this paper they presents an online advertising system designed to be faster and more private than existing systems while filling the practical market needs of targeted advertising. In this paper presents the design of provide, and analyzes the pros and cons of various design decisions. They provides an informal analysis of the privacy properties of provide. This system Based on micro benchmarks and traces from a production advertising platform. This paper presents a practical and substantially more private online advertising system that attempts to offer that alternative. This system have designs and detailed privacy analysis for all major components: ad delivery and reporting, click fraud defense, advertiser auctions, user profiling, and optimizations for scalability.

[21] In this paper they provide insight on the states of the LBS and Mobile Marketing/Advertising markets in the United States. They discuss the benefits of bringing together the world of LBS and that of mobile marketing/advertising to create LBA. There main goal is to cross-educate the key players in each segment.

[22] In this paper they describes the online advertising industry. In this article they describes how the online advertising industry works, also focusing on several economic aspects of this business. In this paper they discuss about search-based advertising, online display advertising and why the online advertising industry will remain at the center of public policy debate for many years to come. Their system are important for understanding the current structure and evolution of the online advertising business. Author said that they

detecting frauds in web advertising networks. In this paper they address one particular type of fraud that exists in search advertising. They propose an algorithm to detect frauds in a web advertising network. Also their system illustrate the method with an example.

[23]Author said that they find out the solution of detecting a malicious collaboration which leads to frauds in web advertising networks. Their algorithm scans the ISP log four times and it gives the total number of occurrences of the association that it detects through analysis of the ISP log. In this paper they proposed an algorithm to detect the possible malicious collaboration between a search engine and a particular advertiser.

[24]Author said that they provides a clear and detailed overview of the technologies and business models. In this paper they focuses primarily on the information science aspects of online advertising. In this paper their features are such as index, TF/IDF, Web graph,, Anchor Text, Class, Page quality, Spam, Historical and Site-level. All these features can be purely based on the textual content of the page and also based on the web graph of hyperlinked web pages such as Page Rank. In this paper they highlighted information science will continue to be one of the cornerstones in making this happen.

[25]Author said that their system selectively blocks or bypasses tracking on the browsed web sites according to their content and the privacy requirements. Their system is also the first that implements simulated browsing sessions as a privacy-preserving measure. In this paper they evaluate the capability of our system of protecting user profiles according to a variety of privacy requirements. Author said that in future work they plan to evaluate their system with end users in real scenarios.

2.3 Comparative Analysis

Comparative analysis of web-based advertising systems would involve comparing and evaluating the features, capabilities, and performance of different platforms. This web application is user friendly and does not require any technical person to operate it.

CHAPTER 3 METHODOLOGY

3.1 Business Process Modeling

Basically it is a web based project which can be used by the user only. To use first login to the site after login a dashboard will be displayed in front of us. How many elements will there be in the dashboard such as agent, schedule, clans, DSRS bill. Three dashboards named agent, client and schedule will be created in the said site and will show the number of members associated with the said site which can be seen by the admin of the said site.

Since this website is an end management system, we will add as many agents as we have and take the client's information and set the schedule or how many pages they want to add. Then we will schedule them in what amount. When we will release the order through DSLs, when we will publish everything will be here. The description is shown through the figure 1.1.

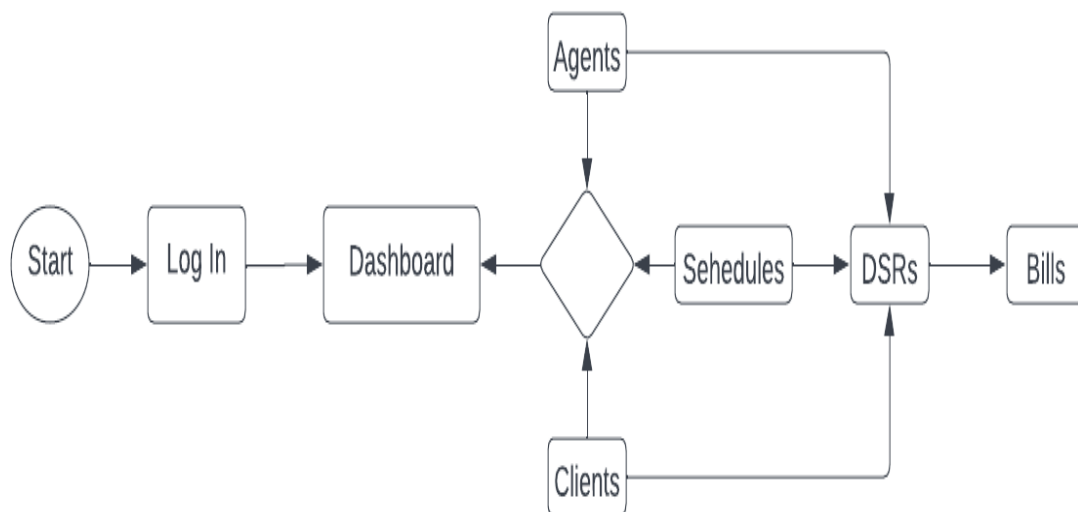


Fig.3.1: Business Process Model

3.2 Requirement Analysis and Collection

3.2.1 Software Requirements:

XAMPP: The Apache HTTP Server, Maria DB database, and interpreters for scripts written in the PHP and Perl programming languages are the core components of XAMPP, a free and open-source cross-platform web server solution stack bundle created by Apache Friends.

The XAMPP Control Panel is a management tool that enables you to keep an eye on the operations of various XAMPP components. Every element of the text server is under its control. By pressing the buttons beneath the "Actions" column, the user can start or stop individual modules.

Visual Studio Code: The ease of a source code editor is combined with robust developer tools, like IntelliSense code completion and debugging, in Visual Studio Code.

An editor gets out of your way first and foremost. Less effort is spent fussing with your surroundings and more time is spent putting your ideas into action thanks to the delightfully frictionless edit-build-debug cycle.

PHP: PHP is short for "Hypertext Pre-processor". PHP is a Web programming language that is integrated into HTML. This implies that PHP code may be present in the HTML for a Web page. When a user browses a PHP page, the server that hosts it reads or "parses" the PHP code. The output of the PHP functions on the page is normally the HTML code that the browser can read. Users cannot read PHP code because it is converted into HTML before a page is loaded. Therefore, PHP pages are secure enough to access databases and other sensitive information. PHP is greatly influenced by the syntax of other languages like C, Java, and Perl. On the other hand, PHP contains a number of distinctive features.

3.3 Use Case Modeling and Description

A Use Case model is a graphical representation of the relationships between the components of a system. Use cases are methods used in systems analysis to identify, describe, and manage system requirements. After entering the site through user login, agents can add, clients can be added, schedules can be added and DSRs can be added. The user will complete his task by creating four databases.

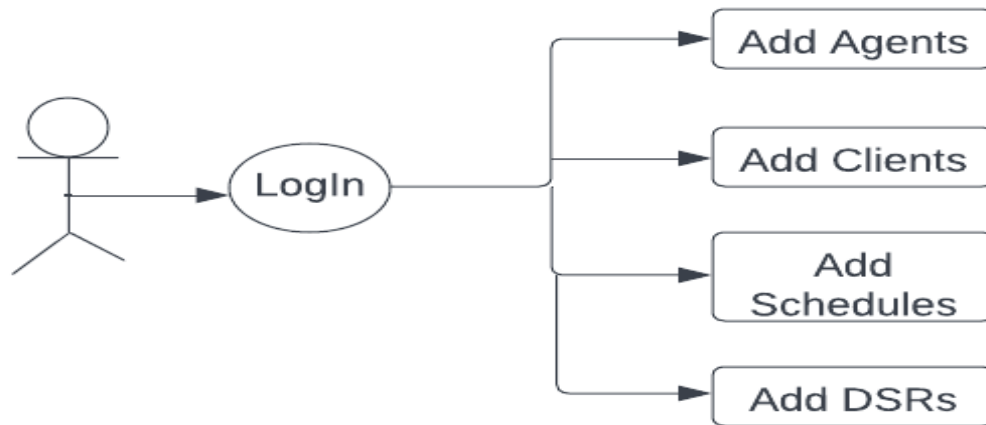


Figure 3.2 shows the application usage pattern.

Use case details:

Use case of Admin Management:

Table: 3.1

Use case name	Admin Management
Use case details	Admin will create as many dashboards as wants. So that schedules can be controlled by a specific dashboard.
Pre-condition	Log In
Actor	“Admin”
Post-condition	Schedule Management

CHAPTER 4 DESIGN SPECIFICATION

4.1 Front-end Design

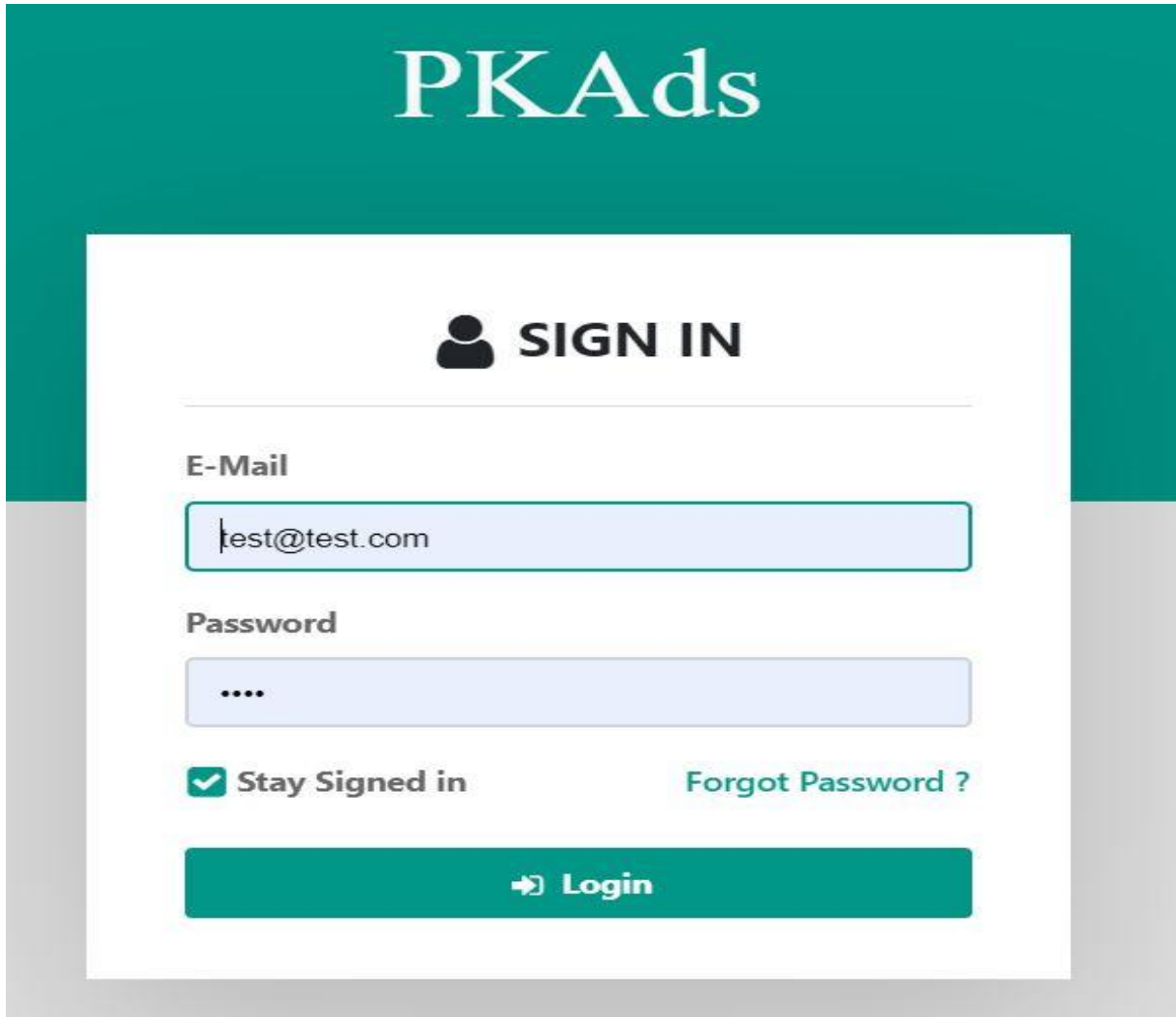
A website has two parts: The frontend part and the backend part. The frontend part is created using HTML, CSS, Bootstrap and JavaScript. The backend part is developed using PHP. The frontend is mainly the visible part of the developed website that the user interacts with and is written in using XML. I made an effort to make the entire project responsive so that it could be used on any device and increase our consumer base. The Bootstrap framework was utilized. It is a front-end framework that is widely used to create contemporary websites and web apps. It is a free front-end framework designed to speed up and simplify web development.

4.1.1 Admin Website: Splash Screen

The very first activity that will be shown for super admin is a splash screen and that will change just with a click. From the splash screen, it will start giving a vibe of an ad management system.

4.1.2 Admin Website: Log In

As the super admin has the maximum power of managing the whole system, they must be authenticated properly. Login Activity will allow only all users to login except that no other person will be able to pass this step.



PKAds

SIGN IN

E-Mail

test@test.com

Password

....

Stay Signed in [Forgot Password ?](#)

Login

Fig. 4.1.2: Website login page

4.1.3 Admin Website: Homepage

The Home page is designed to manage all possible parts. All the necessary modules are shortcuts on the admin dashboard, agents, clients, schedules, recent schedules, DSRs and bills are the modules added in the user home page.

The screenshot displays the PKAds Admin Website Homepage. The interface includes a dark sidebar on the left with navigation options: Dashboard, Agents, Clients, Schedules, DSRs, and Bills. The main content area features a teal header with the PKAds logo and a user profile for Mehedi & Fahim, System Admin. Below the header, there are three colored cards representing AGENTS (1), CLIENTS (1), and SCHEDULES (2). The central section is titled 'Recent Schedules' and contains a table with the following data:

Serial	Client	Page No	Advt Size	Mode	Type	Repeat From	Amount	Remarks	Status	Created At	Action
1	Fahim	1	15 sec	Color	New	N/A	10000	Hotel client	Active	03 Jan, 2023	Edit Delete
2	Fahim	1	20 sec	Color	New	N/A	20000	N/A	Active	03 Jan, 2023	Edit Delete

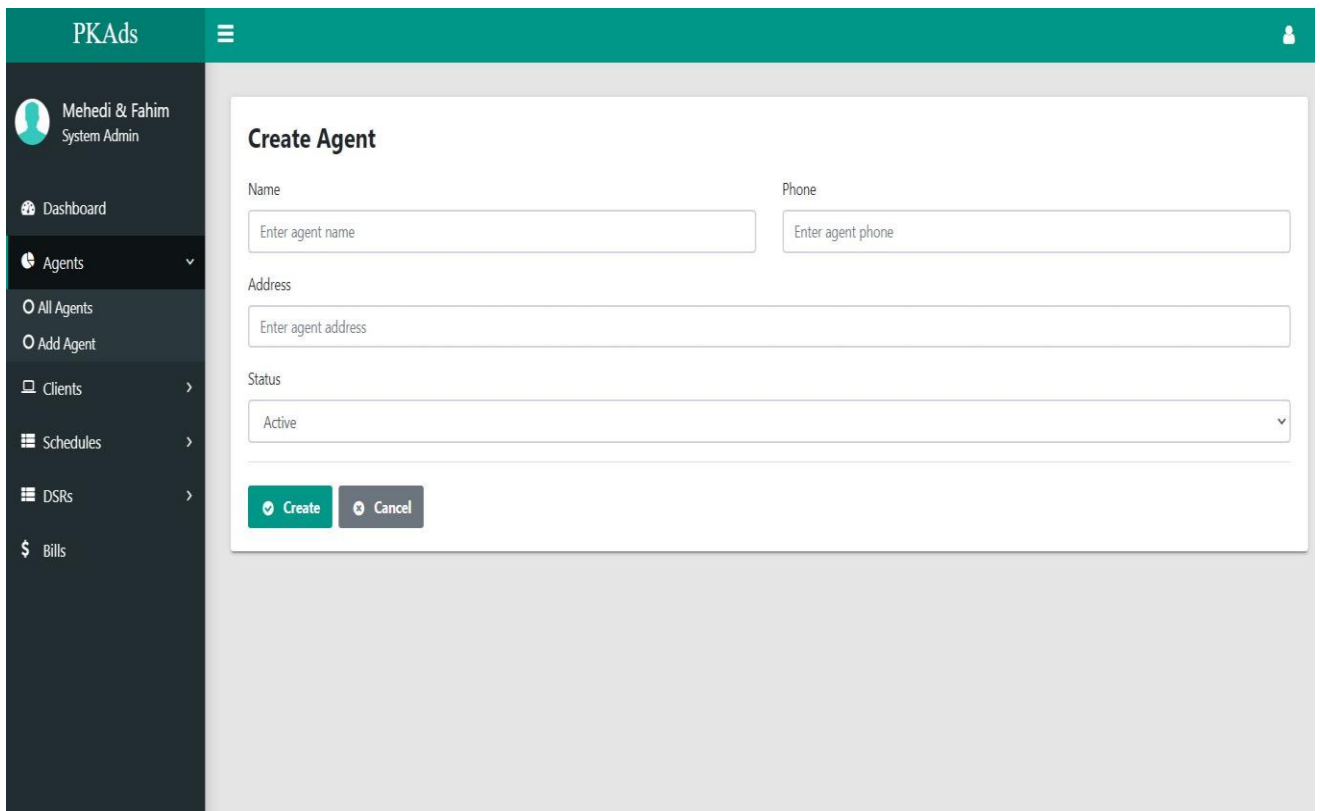
Fig. 4.1.3: Website Homepage

4.2 Back-End Design

In our project, we used the Laravel framework for the backend programming language. Laravel is a well-known PHP web framework that is free and open-source. The Laravel framework can be used for projects of any size, from modest to enormous. Laravel performs superior to thanks to its strong features and development tools that speed up the building of web applications. Laravel's clean, reusable code that adheres to the MVC architecture aids website developers in streamlining the development process. We picked this framework since it is a highly developed web framework with a sizable developer community, making it very easy to find a solution to any issue.

4.3 Admin Panel

Add Agents page:



The screenshot displays the 'Add Agents' page within the PKAds admin interface. The top header is teal with the 'PKAds' logo and a user profile icon. The left sidebar is dark grey, showing the user 'Mehedi & Fahim System Admin' and a menu with 'Agents' selected. The main content area is white and titled 'Create Agent'. It includes three input fields: 'Name' (with placeholder 'Enter agent name'), 'Phone' (with placeholder 'Enter agent phone'), and 'Address' (with placeholder 'Enter agent address'). Below these is a 'Status' dropdown menu currently set to 'Active'. At the bottom of the form are two buttons: a green 'Create' button and a grey 'Cancel' button.

Fig. 4.3.1 Website add agents page

Add Clients Page:

PKAds

Mehedi & Fahim
System Admin

Dashboard

Agents

Clients

All Clients

Add Client

Schedules

DSRs

Bills

Create Client

Name:

Phone:

Email:

Category:

Agent:

Address:

Status:

Fig. 4.3.2 Website add clients page

Add Schedules Page:

PKAds

Mehedi & Fahim
System Admin

Dashboard

Agents

Clients

Schedules

All Schedules

Add Schedule

DSRs

Bills

Create Schedules

Serial No.:

Client:

Page No.:

Advt. Size:

Amount:

Mode: Color Black-White

Type: New Old

Repeat From:

Remarks:

Status:

Fig. 4.3.3 Website add schedules page

Add DSRs Page:

The screenshot shows a web application interface for adding DSRs. The header is green with the text 'PKAds' and a user profile icon. The left sidebar is dark grey with a list of menu items: 'Dashboard', 'Agents', 'Clients', 'Schedules', 'DSRs', 'All DSRs', 'Add DSR', and 'Bills'. The 'DSRs' menu item is expanded. The main content area is white and titled 'Create DSRs'. It contains the following fields:

- 'Schedule': A dropdown menu with 'Select a Schedule' as the placeholder.
- 'Release Order': A text input field with 'Enter Release Order' as the placeholder.
- 'Publishing Date': A text input field with 'Enter Publishing Date' as the placeholder.
- 'MR No': A text input field with 'Enter MR No' as the placeholder.
- 'Cheque No': A text input field with 'Enter Cheque No' as the placeholder.
- 'Cheque Date': A text input field with 'Enter Cheque Date' as the placeholder.
- 'Remarks': A text area with 'Enter Remarks' as the placeholder.

At the bottom of the form, there are two buttons: a green 'Create' button and a grey 'Cancel' button.

Fig. 4.3.4 Website add DSRs page

Facebook Page Design:

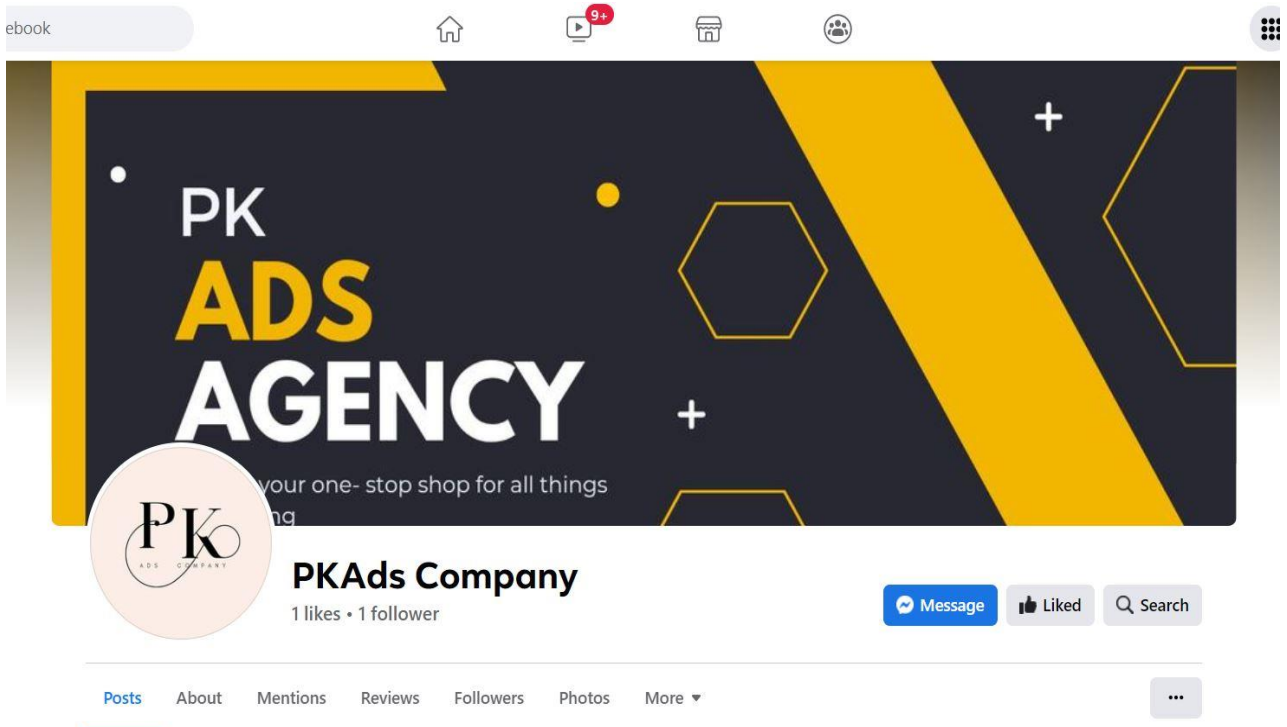


Fig. 4.3.4 Facebook page design

4.4 Facebook Page Design

"Step into a world of endless creativity and endless possibilities. PKADs is your one-stop shop for all things advertising, where we turn your vision into reality and turn your brand into a household name. Get ready to be inspired, get ready to be amazed, get ready for the future of advertising!"

4.5 Implementation Requirements

The process is done using some simple and widely used techniques.

The technology used as follows:

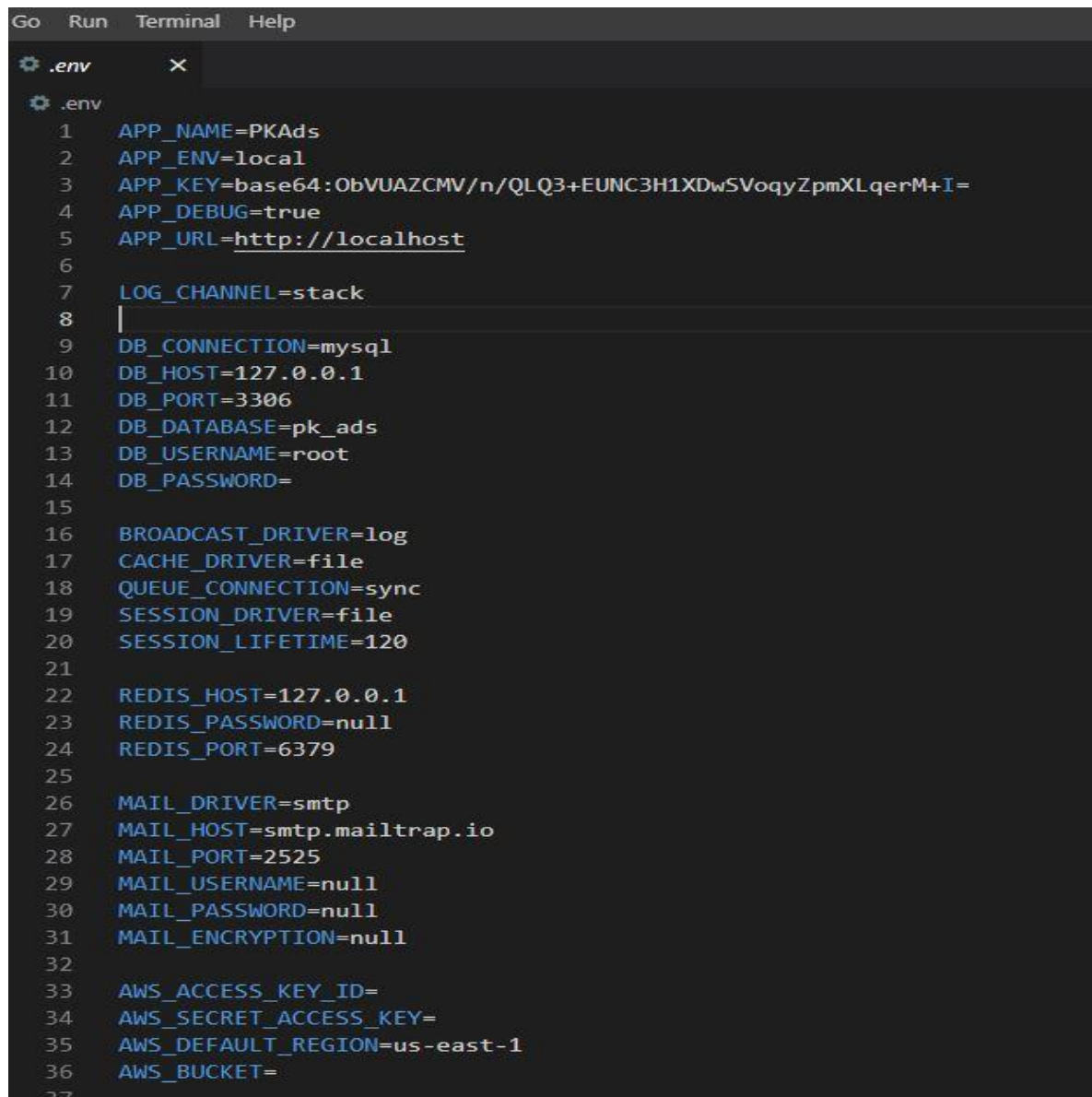
- ❖ Framework: Laravel
- ❖ Programming Languages: JavaScript, PHP
- ❖ Front-end Design: HTML, CSS, Bootstrap4
- ❖ Database: MySQL

CHAPTER 5 IMPLEMENTATION

5.1 Introduction

In this chapter, we will go over the project's implementation procedure. Because this is a web based application, it includes both a front-end and a back-end component. Both of which will be demonstrated with appropriate screenshots.

5.2 Implementation of Database



```
Go Run Terminal Help
.env
.env
1 APP_NAME=PKAds
2 APP_ENV=local
3 APP_KEY=base64:ObVUAZCMV/n/QLQ3+EUNC3H1XDwSVoqyZpmXLqerM+I=
4 APP_DEBUG=true
5 APP_URL=http://localhost
6
7 LOG_CHANNEL=stack
8 |
9 DB_CONNECTION=mysql
10 DB_HOST=127.0.0.1
11 DB_PORT=3306
12 DB_DATABASE=pk_ads
13 DB_USERNAME=root
14 DB_PASSWORD=
15
16 BROADCAST_DRIVER=log
17 CACHE_DRIVER=file
18 QUEUE_CONNECTION=sync
19 SESSION_DRIVER=file
20 SESSION_LIFETIME=120
21
22 REDIS_HOST=127.0.0.1
23 REDIS_PASSWORD=null
24 REDIS_PORT=6379
25
26 MAIL_DRIVER=smtp
27 MAIL_HOST=smtp.mailtrap.io
28 MAIL_PORT=2525
29 MAIL_USERNAME=null
30 MAIL_PASSWORD=null
31 MAIL_ENCRYPTION=null
32
33 AWS_ACCESS_KEY_ID=
34 AWS_SECRET_ACCESS_KEY=
35 AWS_DEFAULT_REGION=us-east-1
36 AWS_BUCKET=
37
```

Figure 5.2.1: Database connection

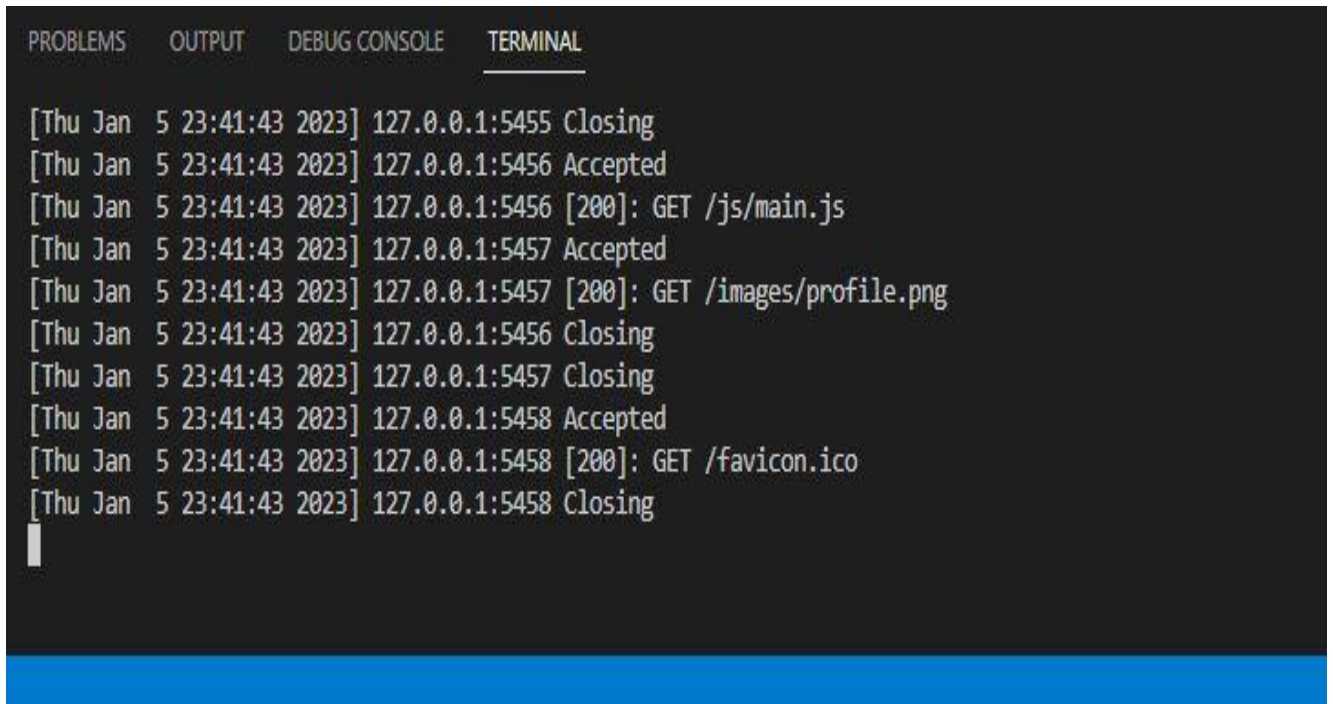
5.3 Implementation of Interaction

The system is as user friendly as possible. Our plan is to implement an application system with a friendly user interface. This confirms a good user experience. General graphics; Instance; we have used spinners and other things. A beautiful and easy-to-understand user interface makes the application easy to run.

5.4 Testing Implementation

Testing is crucial as this is a web-based application before distribution. These tests will evaluate overall performance and offer advice on how to modify the project if needed. We can learn from the testing how long it takes to use the program and how to shorten that time. A number of tests can be run with this application. The outcomes of the several experiments we carried out here are shown below.

Dataset Test:



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL

[Thu Jan 5 23:41:43 2023] 127.0.0.1:5455 Closing
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5456 Accepted
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5456 [200]: GET /js/main.js
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5457 Accepted
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5457 [200]: GET /images/profile.png
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5456 Closing
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5457 Closing
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5458 Accepted
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5458 [200]: GET /favicon.ico
[Thu Jan 5 23:41:43 2023] 127.0.0.1:5458 Closing
```

Fig. 5.4.1 Dataset test

Dataset Insert Test:

The screenshot shows the phpMyAdmin interface for the 'agents' table in the 'pk_ads' database. A green confirmation message states: "Showing rows 0 - 1 (2 total, Query took 0.0005 seconds.)". Below this, the SQL query "SELECT * FROM `agents`" is displayed. The table view shows two rows of data:

	id	name	address	phone	status	created_at	updated_at
<input type="checkbox"/>	1	Fahim	Dhaka	01798616634	1	2023-01-04 03:36:44	2023-01-04 03:36:44
<input type="checkbox"/>	3	Abir	Dhaka	1111111111	1	2023-01-05 17:39:36	2023-01-05 17:39:36

The interface also includes navigation tabs (Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations), a sidebar with a database tree, and various control elements like "Show all", "Number of rows", "Filter rows", and "Sort by key".

Fig. 5.4.2 Dataset insert test

5.5 Implementation of Font-End Design

The front end of this kind of shopping platform is essential for drawing in more customers. As a result, the front-end has received a lot of attention. I've worked hard to make the project responsive so that it can be used on any device in an effort to expand my clientele. It made use of the bootstrap framework. Utilizing this front-end framework, many modern websites and web applications are created. It is a free front-end framework designed to speed up and simplify web development.

CHAPTER 6

IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

6.1 Influence of Society

Small business owners can easily manage their operations from my website without spending any money. A very small portion of each order's sales will go to the administrator. I think my idea will be very beneficial to small business owners in addition to customers, managers, and our society as a whole.

6.2 Effects on The Environment

The management approach is more carbon-efficient than conventional retail locations, according to a global study by Generation IM. The company's carbon-efficient activities span industries like freight transportation.

6.3 Ethical Aspects

It is very important to ensure that the person providing the assessment. I ensure that Student can only Application in I Website. Popular development platform Laravel which I used is famous for its security.

6.4 Sustainability

For all of our data, the model we utilized appears to provide a take able accuracy of over 80%. Our society is constantly changing as we speak. Although a more accurate model might exist, the working model and methods might not change because the principle-obeying project is utilized for a variety of applications, most of which are handled by the server.

CHAPTER 7

CONCLUSION AND FUTURE SCOPE

7.1 Discussion

A web-based ad management system is a software platform that enables businesses to manage their online advertising campaigns across multiple websites and advertising channels. These systems typically provide a range of features that help businesses create, target, and track their ads, as well as optimize their campaigns for maximum effectiveness. One of the main benefits of using a web-based ad management system is the convenience of being able to access and manage your ad campaigns from any internet-connected device. This allows businesses to make changes and updates to their campaigns in real time, as well as track the performance of their ads and make adjustments as needed. Another benefit of these systems is their ability to target specific audiences and demographics. In addition, web-based ad management systems often offer a range of tools and features to help businesses optimize their campaigns. These can include features such as A/B testing, which allows businesses to compare the performance of different versions of an ad, as well as analytics tools that provide insights into the effectiveness of their campaigns. Overall, a web-based ad management system can be a valuable tool for businesses looking to effectively manage and optimize their online advertising efforts.

7.2 Conclusions

A web-based advertising system is a platform that allows businesses to create and manage online advertising campaigns. These systems typically offer a range of tools and features, including ad creation and targeting options, performance tracking, and analytics. One major advantage of a web-based advertising system is that it allows businesses to reach a wide and diverse audience through the internet. With the ability to target specific demographics and interests, businesses can effectively promote their products and services to the right consumers. Additionally, web-based advertising systems provide detailed performance tracking and analytics, allowing businesses to measure the effectiveness of their campaigns and make data-driven decisions. Overall, a web-based advertising system is an important tool for businesses looking to reach and engage with customers online. It

provides a convenient and effective way to create and manage advertising campaigns, as well as track and analyze their performance.

7.3 Scope for Features

Our ad management system will have the following features:

- 1) Ad creation and design tools: These tools allow users to create and customize ads, including text, images, and video content.
- 2) Targeting and segmentation: This management systems often include features for targeting specific audiences or segments based on factors such as demographics, interests, location, and behavior.
- 3) Ad placement and distribution: These features enable users to choose where and when their ads will be displayed, such as on specific websites, mobile apps, or social media platforms.
- 4) Budget management and optimization: These tools help users optimize their ad spend by setting budgets, targeting specific keywords or placements, and adjusting bids in real-time based on performance.
- 5) Reporting and analytics: This Ad management systems often provide insights and metrics on ad performance, including impressions, clicks, conversions, and ROI.
- 6)Integration with other platforms: Many ad management systems offer integrations with other marketing and advertising tools, such as email marketing platforms, customer relationship management systems, and analytics tools.
- 7) Collaboration and workflow management: These features allow multiple users to work on ad campaigns together and track the progress of tasks and projects.
- 8) Security and privacy: This Ad management systems should also prioritize security and protect user data to ensure compliance with laws and regulations.

REFERENCES

- [1] Chatterjee, P., Hoffman, D.L. and Novak, T.P., 2003. Modeling the clickstream: Implications for web-based advertising efforts. *Marketing Science*, 22(4), pp.520-541.
- [2] Mookerjee, R., Kumar, S. and Mookerjee, V.S., 2017. Optimizing performance-based internet advertisement campaigns. *Operations Research*, 65(1), pp.38-54.
- [3] Langheinrich, M., Nakamura, A., Abe, N., Kamba, T. and Koseki, Y., 1999. Unintrusive customization techniques for web advertising. *Computer Networks*, 31(11-16), pp.1259-1272.
- [4] Xu, H., Oh, L.B. and Teo, H.H., 2009. Perceived effectiveness of text vs. multimedia location-based advertising messaging. *International Journal of Mobile Communications*, 7(2), pp.154-177.
- [5] Kazienko, P. and Adamski, M., 2007. AdROSA—Adaptive personalization of web advertising. *Information Sciences*, 177(11), pp.2269-2295.
- [6] Aguilar, J. and Garcia, G., 2017. An adaptive intelligent management system of advertising for social networks: A case study of Facebook. *IEEE Transactions on Computational Social Systems*, 5(1), pp.20-32.
- [7] Kim, B., Ha, J.Y., Lee, S., Kang, S., Lee, Y., Rhee, Y., Nachman, L. and Song, J., 2011, March. And next: a visit-pattern-aware mobile advertising system for urban commercial complexes. In *Proceedings of the 12th Workshop on Mobile Computing Systems and Applications* (pp. 7-12).
- [8] Li, Y.M., Lee, Y.L. and Lien, N.J., 2012. Online social advertising via influential endorsers. *International Journal of Electronic Commerce*, 16(3), pp.119-154.
- [9] Kim, J.W. and Du, S., 2006, January. Design for an interactive television advertising system. In *Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06)* (Vol. 2, pp. 47-47). IEEE.
- [10] Gao, J.Z. and Ji, A., 2008, May. Smartmobile-ad: An intelligent mobile advertising system. In *2008 The 3rd International Conference on Grid and Pervasive Computing-Workshops* (pp. 164-171). IEEE.
- [11] Evans, C., Moore, P. and Thomas, A., 2012, July. An intelligent mobile advertising system (iMIS): Location-based advertising to individuals and businesses. In *2012 Sixth International Conference on Complex, Intelligent, and Software Intensive Systems* (pp. 959-964). IEEE.
- [12] Ahmed, A., Khuhawar, S.A., and Kimlong, N., 2018. OPAS: A Trusted Web-Based Online Property Advertising System. *Indian Journal of Science and Technology*, 11(40), pp.1-5.

- [13] Lai, H. and Yang, T.C., 1999, July. An architecture of interactive web advertising system. In Proceedings of the 5th International Conference of The Decision Sciences Institute.
- [14] Yang, W.S., Dia, J.B., Cheng, H.C. and Lin, H.T., 2006, January. Mining social networks for targeted advertising. In Proceedings of the 39th Annual Hawaii International Conference on System Sciences (HICSS'06) (Vol. 6, pp. 137a-137a). IEEE.
- [15] Deshpande, N., Ahmed, S. and Khode, A., 2014. Web-based targeted advertising: A study based on patent information. *Procedia Economics and Finance*, 11, pp.522-535.
- [16] Kazienko, P., 2005, September. Multi-agent system for web advertising. In *International Conference on Knowledge-Based and Intelligent Information and Engineering Systems* (pp. 507-513). Springer, Berlin, Heidelberg.
- [17] Kölmel, B. and Porak, A., 2003. *Real-Life Scenarios of Location-Based Advertising*. na
- [18] Sood, A.K. and Enbody, R.J., 2011. Malvertising—exploiting web advertising. *Computer Fraud & Security*, 2011(4), pp.11-16.
- [19] Curran, K., Graham, S. and Temple, C., 2011. Advertising on facebook. *International Journal of E-business development*, 1(1), pp.26-33.
- [20] Guha, S., Cheng, B. and Francis, P., 2011. Privad: Practical privacy in online advertising. In *8th USENIX Symposium on Networked Systems Design and Implementation (NSDI 11)*.
- [21] Peterson, L., Groot, R., Luccio, M. and Potomac, M.D., 2009. *Location-Based Advertising*. Peterson Mobility Solutions,(Dec. 2009), 39.
- [22] Evans, D.S., 2008. The economics of the online advertising industry. *Review of network economics*, 7(3).
- [23] Mittal, S., Gupta, R., Mohania, M., Gupta, S.K., Iwaihara, M. and Dillon, T., 2006, September. Detecting frauds in online advertising systems. In *International Conference on Electronic Commerce and Web Technologies* (pp. 222-231). Springer, Berlin, Heidelberg.
- [24] Shanahan, J.G. and Kurra, G., 2011. Digital advertising: An information scientist's perspective. In *Advanced Topics in Information Retrieval* (pp. 209-237). Springer, Berlin, Heidelberg.
- [25] Sánchez, D. and Viejo, A., 2018. Privacy-preserving and advertising-friendly web surfing. *Computer Communications*, 130, pp.113-123.

PLAGIARISM REPORT

