DESH DWELLING SERVICE AND APPLIANCE MANAGEMENT.

 \mathbf{BY}

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APPROVAL

This Project titled "Desh Dwelling Service and Appliance Management", submitted by Md. Riaz Rabbi, Md. Saifullah and Md. Ashraf Uddin 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 May 2018.

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We hereby declare that, this project has been done by us under the supervision of Mr. Aniruddha Rakshit, Lecturer, 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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ABSTRACT

Desh Dwelling provides the opportunity of getting online based household service for service seeker and measures of getting job for service holder.

There are few techniques and methods are available that gives peoples the opportunity to take action with dynamically. Customers or providers can register with giving information like name, phone number, customer/provider's service location etc.

If any person already registered by phone number/email number. The app show

"Already registered". A requesting signs up info will go to admin/controller of app, when admin accept the request. The account will be activated.

Then, they can sign in with user name and password and decorate their profile as like as Facebook. Service provider can post their job as which field they are interested. During the time of job posting as a required field would have like job title (Cleaner, Painter, Electrician etc.) email, location (Banani, Dhanmondi, Mirpur etc.), job type (Full Time, Part Time, Internship etc.), job category and sub category, hourly rate etc. When provider submitted the form the all info goes to admin. Admin will verified and accept the details if info doesn't wrong. Then, the job will be showing in the job portal with provider's job title, hourly rate and location. The job will have a specific duration. When, duration expired the job will be deleted automatically.

For the customer/ Service Seeker, service provider's job will show with categorized. A filtering process has for find out the preferred the job like as keywords, locations and job type ways. When any service seeker is want to place and order then a request will go to provider to email or phone number. During the order time a 5 to 10% payment would be debited from provider's account with automatically.

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CHAPTER 1

INTRODUCTION

1.1 General Introduction

Dhaka is a busy city in Bangladesh. All of the peoples are always want to save their time & money and the important thinks most of the peoples are unemployed. To think that matter we have created a web based application as household service for apartments and offices also to think of unemployed person. When suddenly any household services are needed like as service of electronics repairing, electrical repairing, car repairing, cleaning service, carpentry service, plumber service and paining service, it is impossible to find out urgent mechanic or service holder or to take rapidly action for all types of problem solves as household services. By our app a user can easily place an order from their living place/location and also can take a service within half an hour. As opposite to, a skilled unemployed person can easily get job to gives service to customers from their own location by use our app.

1.2 Motivation

Day by day the problems are increasing in our country. On the other side problem are solving with digitalize way as Bangladesh are being digital. To think that matter we have created this app so that unemployed person can gets job and service seeker can easily get their proper service with rapidly and 24/7.

1.3 Objectives

Objectives of this project are as follows:

- a) Develop a Household and appliance management system which reduce valuable time
- b) Job placement for unemployed person in Bangladesh
- c) Giving easy and flexible access to computer, tablet device and smartphone with responsive design.
- d) Arranging job for unemployed person and helps to finding household service for customer from their own places.
- e) Secure and trustworthy service for customer,
- f) Quickly and 24/7 services.

1.4 Report Layout

In the chapter 2, we introduced requirements theory of our project. We also briefed on about the related work, the scope and challenges of the project. In chapter 3 we discussed coding backgrounds of study for our project. In the chapter 4, we specified the requirement of the project. In the section we defined the data flow diagram use case, ER diagram and design requirements. We also discussed about the requirement collection and analysis process. We also briefed on about the related work, the scope and challenges of the project. We specified the front end and the back end design of the project in the chapter 5. In the chapter 6 we discussed about conclusion and the scope for further development of the project

CHAPTER 2

BACKGROUND

2.1 Introduction

Before created this app we had thought the easiest way to better use depend on customer and service provider such as easy browsing, easy choose to service provider as category ways for example, full time, part time, internship etc. type service provider which is unique than other app. Automated GPS system and SMS based alert system functions which are also unique than others web app. In this app we also added the review system of the specific service provider.

2.2 Related Works

As we have built this app regarding the easiest browsing with no fixed service provider. So, we have an analysis depend on the household service.

According to our analysis we have found only these similar web apps that are currently available in the google.

Existing web Apps:

- √ handymama.co
- √ sheba.xyz

In this two of the apps their employers are fixed. If anybody want to do works as an employer in their web system. They will be counted as a fixed worker or employer, their admin will receive the order and sends to worker to serve the customer and the workers take the payment from the web app owner with cash. In their app do not have category of employer. But, in our web system have been reduced the limitations of other systems such as not fixed worker, anybody can sign up and sign in as a service provider and can gives the service to customer, can take their payment with percentage with automatically and customer can also select the service provider with category ways like full time, part time, internship etc. For customer can do also complaining and review to specific service provider. We will add automated GPS system and SMS based alert system which is as scope for future development.

2.3 Challenges

It's a common thing in performing an activity is challenges. There is no work exists without challenge. Similarly, in our project, we also faced some challenges.

At the starting time of building our app, we were just the idea of the system. But, how do we implementation that we were no idea. Our honorable sir Aniruddha Rakhshit has been helped more which is really indefeasible. For his care and support finally we have been able to attained to build the system.

CHAPTER 3

SYSTEM DESIGN AND REQUIREMENT SPECIFICATION

3.1 Requirement Application

Requirement collection and analysis is one of the primary phases of application development. Before installing the actual software some pre-requisites of the desired system must be installed first, these includes-

- Operation system (windows 7/8/10)
- Anti-virus
- XAMPP server

XAMPP server 7.0.9-0 has PHP 7.2.2 Apache 2.4.0, MYSQL 5.7.19. It has phpMyAdmin and SQLite manager.

3.2 Data Flow Diagram

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system, modelling its *process* aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, how the data will advance through the system, and where the data will be stored. It does not show information about process timing or whether processes will operate in sequence or in parallel, unlike a traditional structured flowchart which focuses on control flow, or a UML activity workflow diagram, which presents both control and data flows as a unified model. [1] The following fig of 3.2.1 and 3.2.2 are shown our system's 0-level dfd and 1-level dfd

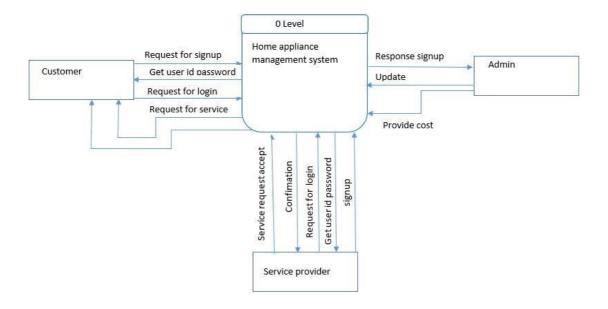


Figure 3.2.1: 0 level DFD

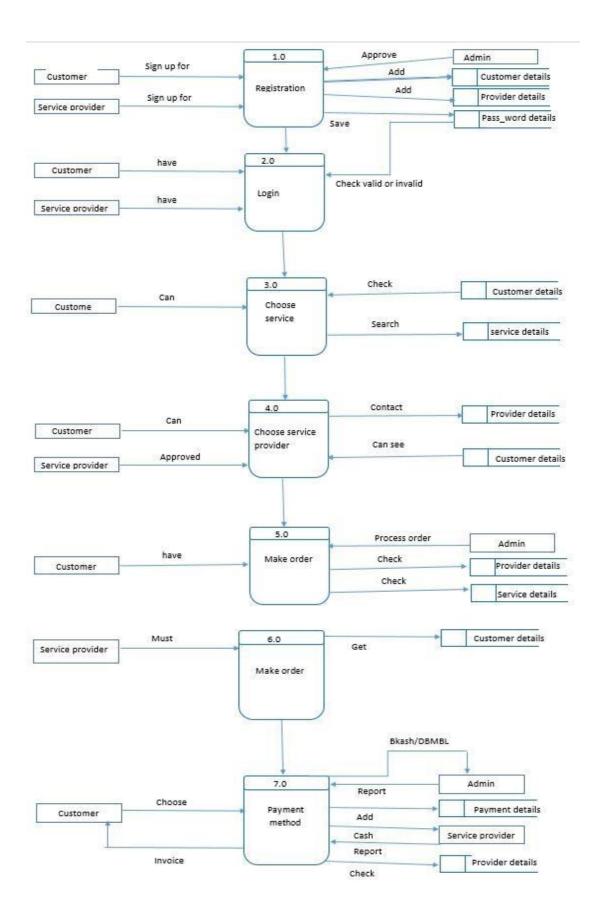


Figure 3.2.2: 0 level DFD

3.3 E-R Diagram

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how "entities" such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs. [2] The following fig 3.3.1 is shown our system's ER Diagram.

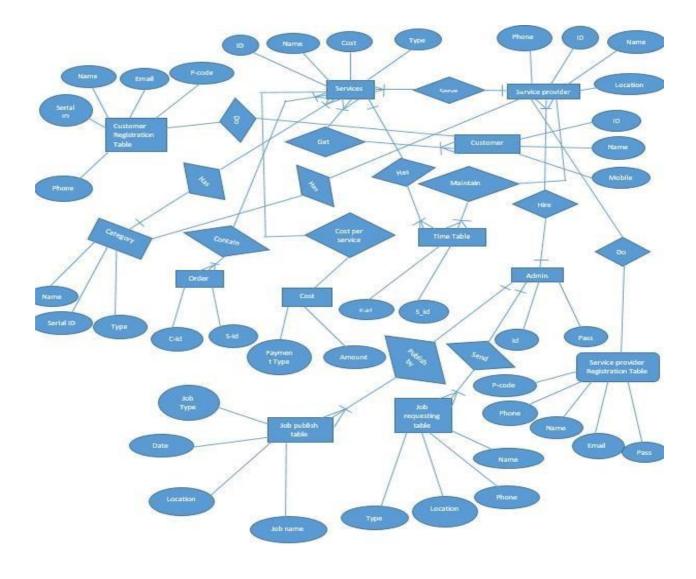


Fig 3.3.1: E-R Diagram

3.4 Design Requirement

The design requirements for our project will differs us from the other projects, because our project will be working based on specific problem statement and the product, system, or experience that we are designing. We designed our project for a specific segment, that is develop a household service and we try to provide the all things to household and appliance services that are necessary for a service provider and service seeker to operate our website access easily.

CHAPTER 4 DESIGN SPECIFICATION

4.1 Front-end Design

Front-end is a most important part of the website. It's worked on presentation layer and it directly displayed to user, so the only way to interact with system is front-end and it's very important to develop a simple and easily understanding front-end or GUI for user. There is very popular quote about design that, "Everything must be made as simple as possible. But not simpler" by Albert Einstein, so we tried to keep our design as simple and easy accessible for user, although the development tasks weren't easy. After all, we design it for user and we hope that user will accept our system easily. In bellow we attach our application front-end design.

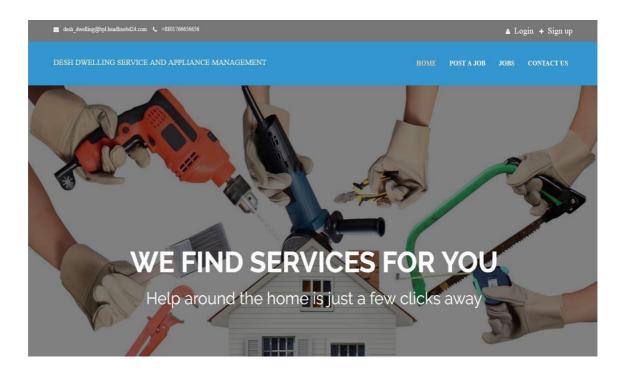


Figure 4.1.1: Top Home Page.

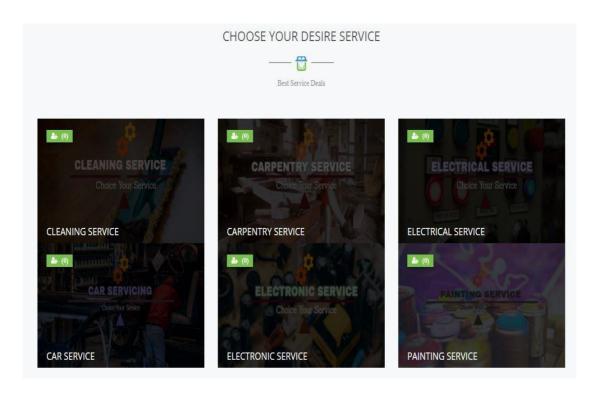


Figure 4.1.2: Bottom Home Page.



Figure 4.1.3: Blogging community

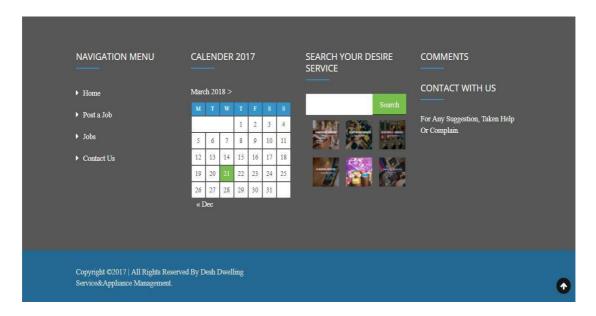


Figure 4.1.4: Footer

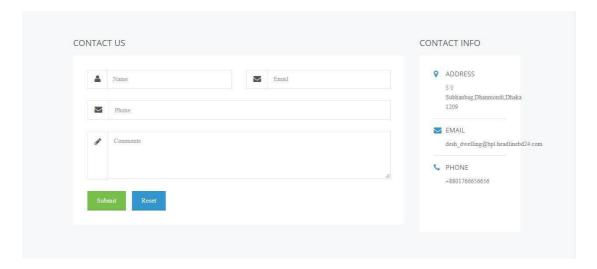


Figure 4.1.5: Contact Form and Location for any suggestion or complaining.

4.2 Back-end Design Features

Our project is almost fully dynamic features which is the part of Back-end. We used PHP, MYSQL, JAVASCRIPT and local XAMPP server to develop and maintain the Back-end section. After completing the whole web app, we transferred it in live server.

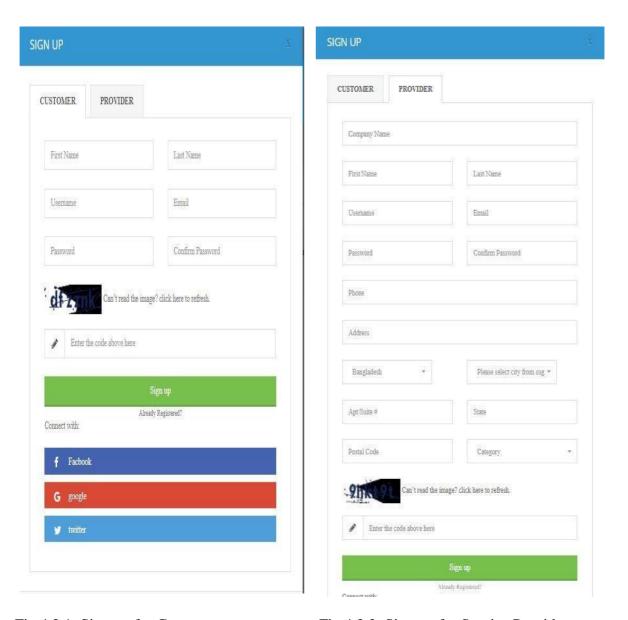


Fig 4.2.1: Sign up for Customer

Fig 4.2.2: Sign up for Service Provider

In fig 4.2.1 and 4.2.2 has two of sign up or create a/c for customer and service provider as a dropdown menu. Without sign up a service provider can't job a post and customer cannot take service.

If already has created an account for admin / service provider / customer need not open/create an account. The admin, customer or service provider can do their activity by signing the form, the database can automatic detect the user and for them their self-account profile are opened. The following only form is fig 4.2.3.



Fig 4.2.3: Sign in process for admin / service provider / customer.

In fig 4.2.4 customer can decorates his profile with giving his personal information, so that the admin can detect easily the customer.



Fig 4.2.4: Profile create process for Customer.

After successfully registration service provider can do job post. For job posting he/she must be providing his hourly rate, location, job title, job category, job sub category, his/her works procedures and lastly his displayed job posting profile for that he can provide a logo and company name (a name of his/her job displayed name). The following fig 4.2.5: is shown the process.

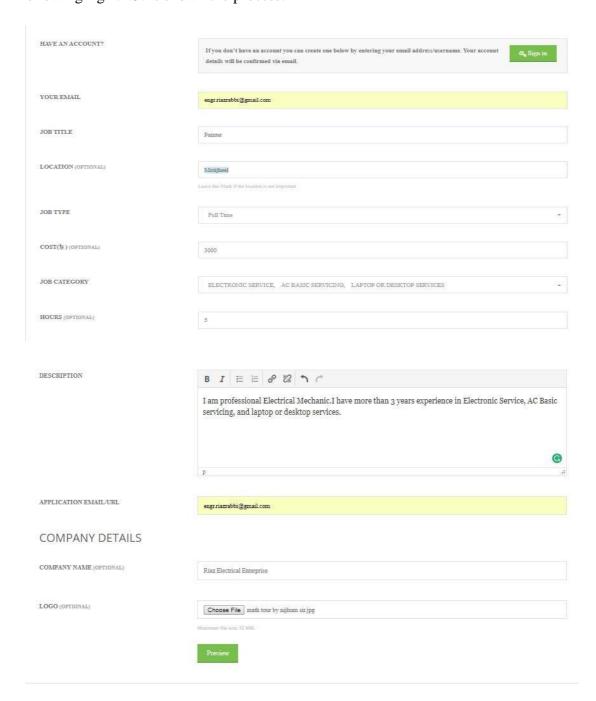


Fig 4.2.5: Job Posting process for service provider.

When the service providers will have completed the form then two option will come one for editing if needed and another for submit the process. The following fig 4.2.6: is shown the process.



Fig 4.2.6: Edit and submit job for service provider.

When job seeker will post a service/job as part time, full time, internship, temporary or freelance, a job request will come to admin, when admin accept the request then the job will show in browser. The following fig 4.2.7: is shown the process.

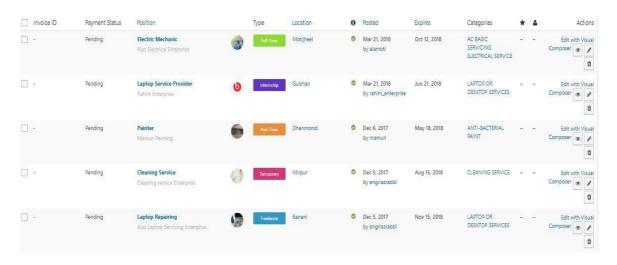


Fig 4.2.7: provider's job request is gone to Admin for Accepting.

The accepted jobs are shown in the Job option in our web app. The customer can search with filtering of service provider's job as full time or part time or both. The following figure 4.2.8: is shown the process.

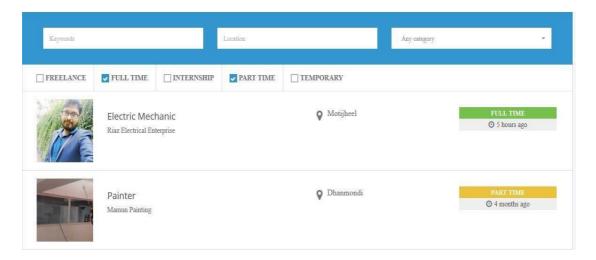


Fig 4.2.8: Full time and Part Time job showing

Customer can also search the job with freelance, internship and temporary which is shown in fig 4.2.9.

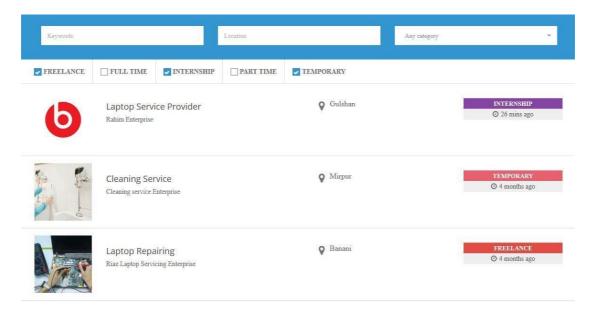


Fig 4.2.9: Freelance, Internship, and Temporary job are showing

When customer will search all jobs freelance, full time, internship, part time and temporary the following which is displayed in fig 4.3.0.

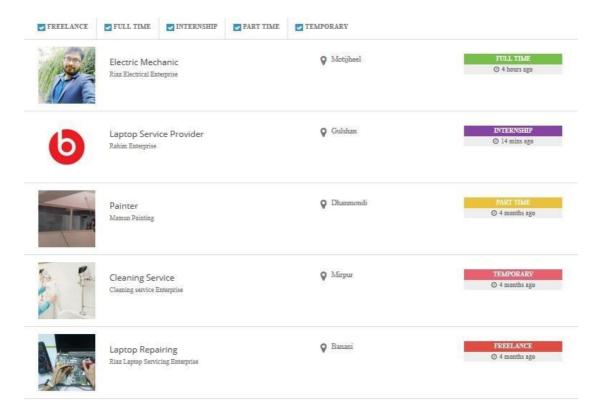


Fig 4.3.0: All jobs are together shows when selects all types of job.

The customer can also search as filtering by keywords, selecting location and category which are shown the following fig 4.3.1, 4.3.2 and 4.3.2.

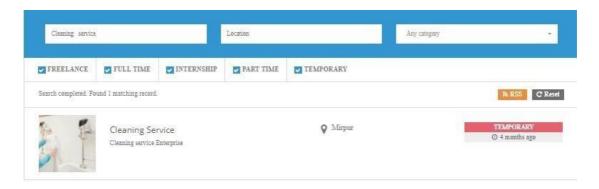


Fig 4.3.1: Search with keyword

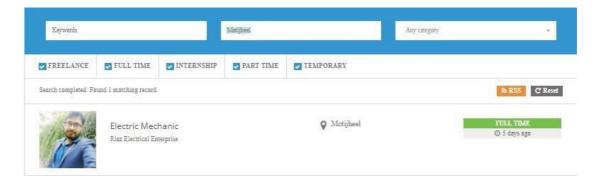


Fig 4.3.2: Search with Place.

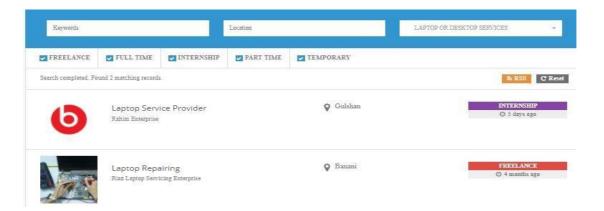


Fig 4.3.3: Search with category and sub category.

When a customer wants to take their desire service with filtering place then he/she click the job for showing details, then the job post details are shows following fig 4.3.4:

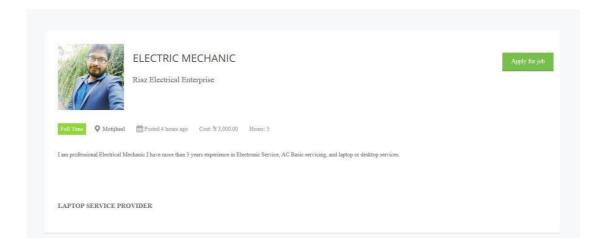


Fig 4.3.4: Service provider's job details.

4.3 Interaction Design and UX

This is a question we hear a lot. Unfortunately, there's no simple answer to this question. Firstly, that's because there no globally agreed definition of the two website different. That means that our explanation user needs to change and requirement in the suggestion with priority in the website perspective.

Interaction design is specifically a discipline, which examines the interaction between a system and its user. Actually an interaction design which call understand the user problem domain, process the problem and find the result, do the action by respecting the result and solve the problem.

There no doubt that the activity created by an interaction designer needs to follow some form of UX design process. There no point in conducting user research and working out what user want if interaction designers who are responding to those needs are kept arm's length from UX research outputs.

Actually an interaction design which call understand the user problem domain, process the problem and find the result, do the action by respecting the result and solve the problem.

On the other hand, user experience focuses on the overall experience between a user and an application. In our project, there is some feature that can interact the user, one of the features is personal blog that can share the imagination or thought from one to another and could be motivate the system's use

For UX we are tried to give some tremendous experience by our website, we keep our system simple and easier to use for better experience and performance to we worked so many to decrease the data loading time on our application and that effort will be continued. [7]

CHAPTER 5

IMPLEMENTATION AND TESTING

5.1 Implementation of Front-end and Back-end Design

The front-end and back-end is the important part to creating a web app. Without implementation them it is impossible to create a web app. In our system we have used some of the programming language which has some of the short description.

5.1.1 HTML AND CSS in the project

We have used HTML and CSS in Our project as a frontend Design. Web Page's header, center, footer, logo, menu, logo, photos all are created and design by HTML and CSS.

5.1.2 Usages of Bootstrap in the project

We have used Bootstrap for responsive to our web app so that it can supported in Any kinds of Big screen or small sizes device like projector, big monitor of PC, tablet device and any sizes of smartphones.

5.1.3 Database Management System in the Project

In our system we used MYSQL for data retrieve and fetching for customer registration, service provider registration, customer info data, service provider info data, collection and counting data for order and fetching data for job requesting and published data and customer takes service info.

5.1.4 Usage of JAVASCRIPT and JQuery in the project

In our project JAVASCRIPT has been used for counting of job, category, customer, service providers and JQuery has been used for attractive design of our web app and used a plugin of calendar.

5.1.5 PHP in the project

In this project for all tasks and activities we have used PHP as a backend. We used it for send data, fetching data, retrieving data and get request data from and to MySQL.

5.1.6 Redux Framework in the project

We have used redux framework to develop the project as WordPress Development. The options panel has been used to: upload a logo, change the background color or any CSS property of an element (such as the header or footer of our theme), select a, predefined skin or layout add custom CSS or JavaScript and more. [3]

5.2 Testing

Unit Testing
Integration Testing
Regression Testing
System Testing

Unit Testing:

Every individual activity is tested

Finding service provider service's data

Testing customer application and buying records.

Integration Testing:

The back button leads to previous page

Regression Testing:

If mobile data not enabled the app doesn't work.

System Testing:

The entire system is tested to confirm the apps functionality

Black Box Testing:

This test is all about whether the user is getting the information they want without concerning how the information they are getting.

5.3 Test Cases

The following table 5.3.1 describe our app registration test case result. Now we see that is very sincerely to create profile

Table 5.3.1: Create Profile or Register Test Case

Test Case	Expected Output	Actual Output	Result
Enter Email	riaz@gmail.com	Successfully entered	success
Enter Password	123	Error(PS must be 6 digit)	Failure
Click register Button	Successful create profile	Successful create profile	success
Blank Email	Error	Error	Failure
Blank Password	Error	Error	Failure

User Log in test case describe the following Table 5.3. 2

Table 5.3.2: Customer Log in Test Case

Test Case	Expected Output	Actual Output	Result
Enter Email			
Address			
Enter Password			
Click log in Button	Successful log in	Successful log in	success
Wrong Email	Error	Error	Failure
Wrong Password	Error	Error	Failure

The process of finding service provider with location, category and keyword ways which has been shown in fig 5.3.3:

Table 5.3.3: Finding Service provider Case

Test Case	Expected Output	Actual Output	Result
Enter Keyword	Cleaner	Found	Success
Enter Location	Kolkata	Not Found	Failure
Category	Electrical Service	Found	Success
Click Full Time	Successfully found a	Successfully found	Success
Service provider	service provider		

The following Table 5.3.4 describe the test case of creating a profile for customer or service provider.

Table 5.3.4: Creating Profile Case for Customer.

Test Case	Expected Output	Actual Output	Result
Enter Customer Name	Riaz Rabbi	Successfully changed	Success
Change Password	123	Password must be minimum 6 digits	Failure
Select Image	Done	Successfully Entered	Success

CHAPTER 6

CONCLUSION AND FUTURE SCOPE

6.1 Discussions and Conclusion

After connecting with the application through the live server its overall features and functionalities just work fine. This application workflow and beautiful design are user-friendly and efficient enough to work with.

We have encouraged to developing this type of application because we think online based household system is backdated in Bangladesh than other developing countries and peoples of our countries lagging behind the other countries. So that's why we think to do something that helps our peoples society to turnaround from this bad situation. We created also blogging community that helps the customers to get better service with commenting if they have any suggestions, reports and reviews to service provider. Which is motivates to given good services to customers.

This project is meant for describing all the features and procedures that were followed while developing the application. This document specially mentions the details of the project how it was developed, the primary requirement, as well as various features and functionalities of the project and the procedures followed in achieving these objectives.

6.2 Scope for Future Developments

The system has been developed with future development possibilities in consideration. The proposed system should have the following facilities to serve the better service to the household service seeker.

- Online payment gateway system with payment percentages.
- Automated GPS system to help the service provider to find out rapidly customer's living place.
- SMS based alert system for service provider.

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