

Photolancer: A web-based Freelancing Marketplace to Hire Photographer

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FINAL YEAR DESIGN PROJECT REPORT

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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DAFFODIL INTERNATIONAL UNIVERSITY

DHAKA, BANGLADESH

January, 2025

APPROVAL

This Project titled “Photolancer: A web-based Freelancing Marketplace to Hire Photographers”, submitted by **Nowras Nafiz Shovon ID:181-15-2071** 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 12-01-2025.

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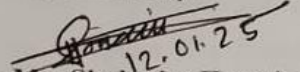
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We hereby declare that this project has been done by us under the supervision of **Shahadat Hossain, Assistant Professor, Department of Computer Science and Engineering, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratefulness to almighty for His divine blessing making it possible for us to complete the final year project successfully.

We are grateful and wish our profound indebtedness to **Mr. Shahadat Hossain, (Assistant Professor)**, Department of CSE Daffodil International University, Dhaka. My supervisor has extensive knowledge and a strong interest in "Web Development" to complete this Project. Completing this assignment has been made possible by his unending patience, academic guidance, persistent encouragement, energetic and constant monitoring, constructive criticism, good advice, reviewing numerous subpar versions, and fixing them at every stage.

We would like to sincerely thank Dr. Sheak Rashed Haider Noori, Professor and Head of the Department of CSE, as well as the other academic members and staff of Daffodil International University's Department of CSE, for their helpful assistance in completing our research.

We express our gratitude to all of our classmates at Daffodil International University who participated in this conversation during the course work.

Lastly, we must respectfully thank our parents for their unwavering patience and support.

ABSTRACT

The Photolancer project has the potential to completely change how people in Bangladesh interact and hire photographers. By offering a sophisticated and user-friendly platform created especially for booking and providing photography services, Photolancer aims to address the difficulties that both clients and photographers experience. Using cutting-edge e-commerce technologies, Photolancer's strategy aims to give customers a flawless experience. The implementation of secure transaction processes will guarantee the privacy and security of personal data on a variety of devices. The project's strategic adoption of contemporary techniques fits with the anticipated technological development in the area, guaranteeing Photolancer's continued leadership in the freelance photography industry. a sustained and impactful presence within the country wide ecommerce marketplace. In precis, Photolancer, in its future trajectory, stands as a testament to innovation in e-book transactions, user-centric layout, and a dedication to meeting the evolving needs of ecommerce book-based enthusiasts in Bangladesh. The project's foresight and strategic positioning reflect a willpower to growing a reliable and colorful virtual market for hiring photographers.

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CHAPTER 1

Introduction

1.1 Overview

The Photolancer project has the potential to completely change how people in Bangladesh interact and hire photographers. By offering a sophisticated and user-friendly platform created especially for booking and providing photography services, Photolancer aims to address the difficulties that both clients and photographers experience. Using cutting-edge e-commerce technologies, Photolancer's strategy aims to give customers a flawless experience. The implementation of secure transaction processes will guarantee the privacy and security of personal data on a variety of devices. The project's strategic adoption of contemporary techniques fits with the anticipated technological development in the area, guaranteeing Photolancer's continued leadership in the freelance photography industry.

1.2 Background and Present State

The Bangladeshi photography industry has always relied on conventional agencies and in-person meetings, which has made it difficult for clients and photographers to be accessible and convenient. These conventional methods frequently have drawbacks such restricted availability of a wide range of photography services, exorbitant agency fees, and trouble matching clients with qualified photographers. Additionally, it might be difficult for independent photographers to become well-known outside of their communities, which limits their capacity to connect with additional people.

1.3 Problem Statement

Accessibility and convenience have been restricted by Bangladesh's photographic industry's historical reliance on physical agencies and in-person interactions. This has resulted in issues like exorbitant prices, a small range of services, and trouble matching clients with qualified experts. Having limited awareness outside of their local communities makes it difficult for freelance photographers to expand their clientele.

Online platforms are becoming more and more in demand, especially in the photography sector, as digital technology advances. However, essential capabilities for scheduling, evaluating, and communicating with photographers are frequently absent from current platforms. Photographers will be able to interact with clients, share portfolios, and take advantage of new opportunities through the site. In order to satisfy the demands of both clients and photographers, Photolancer is currently concentrating on market research and platform development. With clear pricing, a wide range of services, and open communication, Photolancer hopes to establish itself as Bangladesh's premier platform for freelance photography.

1.4 Objectives

Our objectives are:

- **Increase Accessibility:** Create an intuitive platform that breaks down geographical boundaries and makes a wide variety of photography services easily accessible to people in Bangladesh, irrespective of their region or background.
- **Support Local Talent:** By showcasing and promoting local photographers' work, we can increase Bangladeshi photographers' exposure on a national digital platform and encourage the development of local talent.
- **User-Focused Experience:** Create a dependable, user-friendly interface that makes it easy and fun for people to book and hire photographers.
- **Community Engagement:** Create a vibrant online community on Photolancer by promoting insightful conversations, teamwork, and activities that improve user engagement and a feeling of community among photographers.
- **Innovation and Flexibility:** Making sure Photolancer stays relevant and promotes ongoing innovation by staying ahead of technical developments and consistently adjusting to changing user and market expectations. This project recognizes the importance of education in empowering photographers and clients alike.

1.5 Scope and Limitations

The creation and introduction of a new online platform specifically designed for Bangladeshi photographers is part of Photolancer's scope. By offering consumers a smooth and safe interface, the objective seeks to dismantle conventional barriers. In addition to being a booking service, Photolancer wants to support local talent, build a community of photography aficionados, and support Bangladesh's creative culture. The concept entails exhibiting photographers, assisting with creative endeavours by making reservations, and working with partners in the business to improve content. The breadth of Photolancer depends on its flexibility and ongoing innovation, which guarantee that it remains in line with changing customer demands and technology breakthroughs. The platform envisions solutions that provide people who are passionate about photography a sense of ownership and recognition in addition to making photography bookings easier.

1.6 Report Layout

- Introduction
- Literature Review
- Requirement Analysis and Design Specification
- Implementation
- Result and Analysis
- Impact on Society, Environment, and Sustainability
- Conclusion and Future Work
- References
- Plagiarism report

1.7 Summary

An inventive initiative in Bangladesh's digital sector, Photolancer seeks to revolutionize the booking and experience of photography services. Recognizing the shortcomings of

conventional photographic markets, Photolancer aims to create a vibrant online marketplace for photographers to hire. It aims to foster lively communities, assist local photographers, and improve Bangladesh's creative scene in addition to merely bringing clients and photographers together. By emphasizing accessibility and cultural representation, Photolancer has become a cultural hotspot in addition to a booking platform, honouring the country's rich creative legacy in the digital age. This represents a substantial change in the way that people use, pay for, and value photography services.

CHAPTER 2

Literature Review

2.1 Overview

Current systems and academic works pertaining to online photography interactions and network creation in digital domains are extensively examined in the literature review for the Photolancer. This section explores current literature to find gaps, challenging circumstances, and opportunities in the country of digital photography advertising today. It looks at new technology, successful trends, and strategies for network engagement in online forums. The foundation for Photolancer's growth was established by this review bureaucracy, which offers insights into best practices, possible dangers, and possibilities for innovation. By utilizing common knowledge found in literature, Photolancer hopes to establish itself as a modern solution that not only makes photographic transactions easier but also cultivates a strong and connected community of visual artists.

2.2 Related Works

Fiverr: It is a well-known website where you can hire independent photographers for a variety of jobs, including real estate, events, product, and portrait photography. It offers a wide range of photographers and the ability to filter by specialty, delivery time, and price.

Upwork: One well-known freelance marketplace where you can locate qualified photographers is Upwork. It enables you to evaluate portfolios and profiles, post job openings, and negotiate conditions.

Thumbtack: Thumbtack links you with local photographers and focuses on local services. It's a fantastic choice if you need someone close by for a particular job or event.

PeoplePerHour: This network, which offers a range of freelance photographers, is perfect for last-minute photographic needs. It has an escrow system for secure payments and validated abilities.

2.3 Comparison between existing works

Website name	Fiverr	Upwork	Thumbtack	PeoplePerHour
Homepage	Yes	Yes	Yes	Yes
Account	Yes	Yes	Yes	Yes
Search	Yes	Yes	Yes	Yes
Contact	Yes	Yes	Yes	Yes
About	Yes	Yes	Yes	Yes
Photographer	No	No	Yes	Yes
Payment types	Yes	Yes	Yes	Yes

Table 2.3.1: Comparative analysis with my work

2.4 Open Issues

- **Custom Photographer Requests:** Users of Photolancer can request particular kinds of photographers or photography services that aren't already available on the platform. In order to provide individualized service, Photolancer matches users with specialists who fit their requirements when they submit their requests. By attending to each customer's specific demands, this feature keeps users satisfied and

establishes Photolancer as a dynamic platform that values individualized service and grows its product line in response to user input.

- **Selling Used Photography Gear:** Both buyers and sellers gain from Photolancer's ability to enable photographers to sell used photographic gear. Buyers can acquire high-quality equipment at reasonable costs, encouraging cost-effective practices, while sellers can declutter and make money. By extending the life of photography equipment, this function fosters a sustainable marketplace where equipment finds new owners, helping the community and advancing environmental sustainability. A circular economy is supported by Photolancer.
 - **Subscription for Unlimited Selling & Discounts:** Benefits for subscribers include access to exclusive discounts on high-end equipment or classes, as well as unrestricted postings of their photographic services or equipment. This cost-effective subscription model facilitates the expansion of hobbyists and independent contractors while increasing accessibility to expert resources.
 - **Exchange:** It's more like selling but if someone wants the can give us the book which is bought from our site and add some money to get a new book or free depends on books.
- **Prerequisite business fundamental for better to understand:**
- **Business to Business:** It implies transactions or encounters that take place between organizations rather than among businesses and individuals (B2C). In a B2B scenario, one business offers services, offerings, or supplies to another.
 - **Business to Customer:** It describes the exchanges or encounters that occur between a company and specific customers. Businesses that employ a business-to-consumer (B2C) model sell goods, services, or products directly to consumers.

Both these model ideas from different domain needed for making this project successful.

- **On Field Requirement Part:**

The following are necessary field skills:

- Make connections with publishers and authors to gain sufficient business knowledge;
- Make connections with a competent developer to gain sufficient web development knowledge.

2.5 Summary

The literature analysis conducted by Photolancer carefully looks at current digital photography marketplaces to find ways to improve user engagement, expedite professional hiring, and create cooperative communities. Photolancer wants to establish itself as a top option for employing independent photographers by evaluating the advantages and disadvantages of existing platforms. This evaluation serves as a framework for direction, assisting the project in overcoming obstacles and implementing tried-and-true tactics to guarantee that Photolancer develops into a well-known and trustworthy destination for clients and photographers in the years to come.

CHAPTER 3

Requirement Analysis and Design Specification

3.1 Overview

A crucial first step in creating a dynamic online platform for hiring photographers is evaluating Photolancer's demands and designing the platform. The project determines important features and functionalities by carefully examining user needs, market trends, and technical factors. This stage entails in-depth research on the Bangladeshi photography market as it stands today, user consultations, and lengthy talks with stakeholders. A thorough list of requirements, encompassing behavioural controls, security protocols, user interfaces, and localization features, is the end result. A strong system specification that outlines the design required for a flawless user experience is then created using these criteria. It also discusses data management procedures, community participation tactics, and security measures. The design process incorporates useful, user-friendly interfaces to address Bangladesh's technology environment. Together, these strategies provide the groundwork for Photolancer's growth, guaranteeing a platform that not only satisfies users' present demands but also accounts for potential future expansion and technical breakthroughs, establishing Photolancer as a top option in the market for freelance photography.

3.2 System Design: Diagrams given bellow.

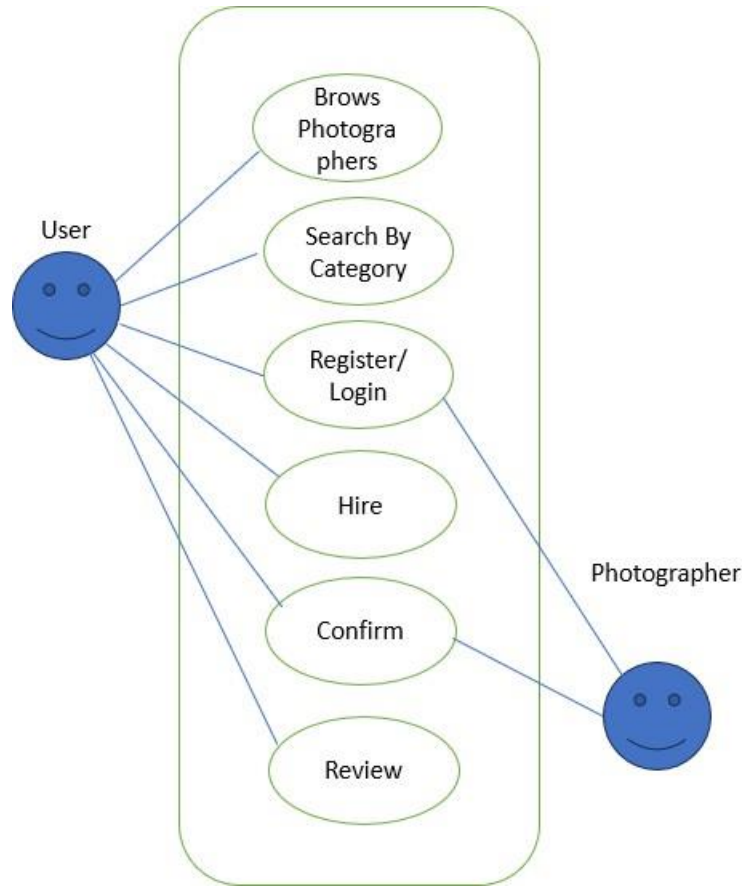


Fig 3.2.1: Use case diagram

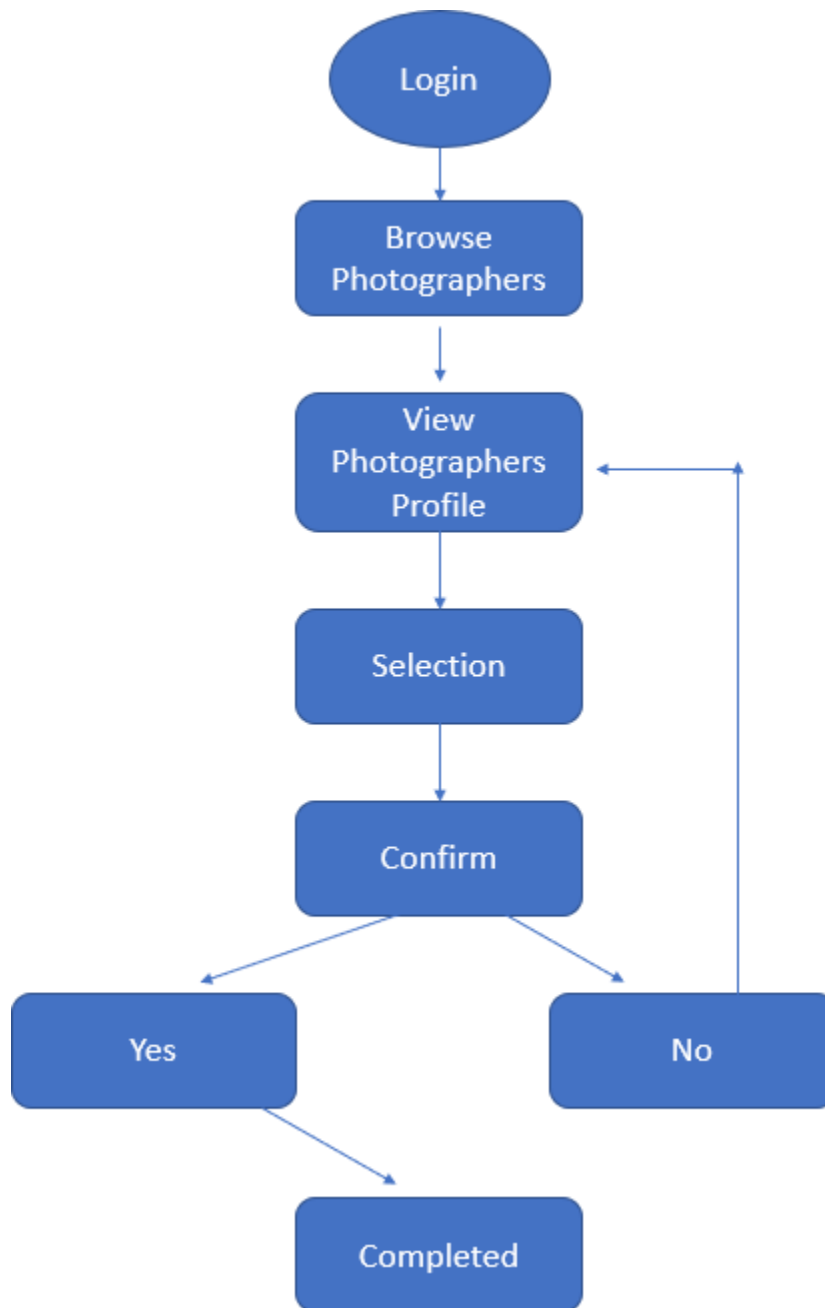


Fig 3.2.2: Activity Diagrams

3.3 Hardware/ Software Requirement

Functional Requirements:

- System Feature 1: Homepage

Without making an account, a user can browse the photographer's profile here.

- Description and Priority

It has a high importance. Because without this, users won't find the site helpful and won't be able to register for an account.

- System Feature 1: Account

In order to hire a photographer, a user must first register an account, which serves as their unique login for our website.

Description and Priority

It has a high importance. Because no one can purchase, sell, request, or trade without an account.

System Feature 1: Categories

Here, one can discover a photographer's particular style.

- Description and Priority

It is a top priority. No one could find different photographers with the same style without this.

- System Feature 1: Wedding Ceremony

Here user can find specialized wedding photographers.

- Description and Priority

Its priority is not so high. It sorts all photographers by photography type.

- System Feature 1: Birthday Parties

It is for hiring top birthday function photographers.

- Description and Priority

It is of medium priority. By category name, it arranges all photographers.

- System Feature 1: Search

Anyone can look up a photographer by name here.

- Description and Priority

It has a very high priority. Nobody can readily locate the photographers they want without this.

- System Feature 1: Contact-us

- For technical assistance or recommendations, get in touch

- Description and Priority

It has a medium priority. Because clients can readily connect to admin panels if necessary.

- System Feature 1: Our newsteller

To receive updates, deals, and the newest highlights, users can sign up for our newsletter.

- Description and Priority

It has high priority. With this feature, marketing sector can be helped

It's given for enrich the local culture.

- System Feature 1: Hire Me

User can hire photographers from.

- Description and Priority

It has big priority. By this feature user can hire their destined photographers by using our service

- System Feature 1: Payment

Cards, COD, BKash, Nagad, and Rocket

- Description and Priority

Its priority is high. Without this no one can pay for their orders and it have to be more secured.

Non-Functional Requirement:

- Security: Preventing unwanted access or data breaches by using strong encryption, authentication, and authorization procedures to safeguard user data and system integrity.
- Scalability: Creating a system design that can easily handle increasing user loads and data volumes without sacrificing responsiveness or speed.
- Usability: Giving top priority to an easy-to-use interface in order to improve user

experience and make the platform effective and accessible for a wide variety of users.

- **Availability:** Ensuring constant and dependable platform access, reducing downtime, and putting redundant mechanisms in place to guarantee continuous service

- **3.4 Project Management and Financial Analysis**

Project Management:

- **Project Objectives:**

- To create a specialized online marketplace for freelancers to hire and enter into contracts with photographers
- To provide a solution for photographers.

- **Project Timeline:**

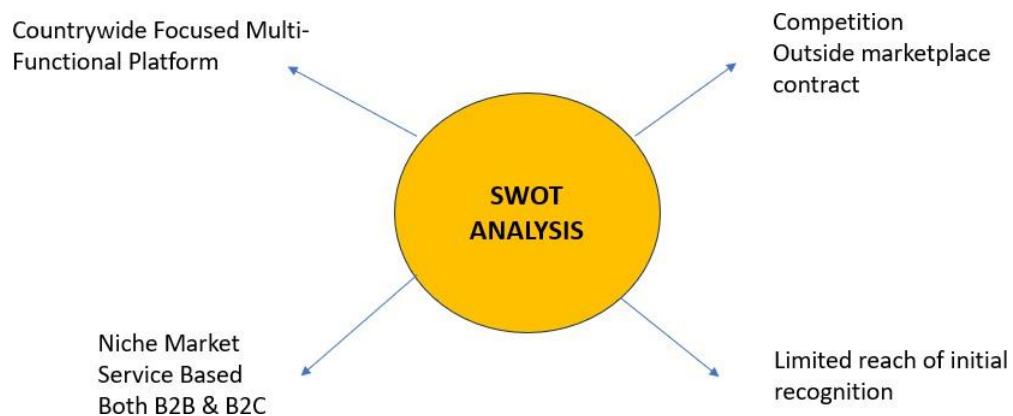
- **Phase 1:** Research and Project Planning (2-4 weeks)
- **Phase 2:** Prototyping (6-8 weeks)
- **Phase 3:** Front-End Development (8-12 weeks)
- **Phase 4:** Back-End Development (13-18 weeks)
- **Phase 5:** Testing (18-20 weeks)
- **Phase 6:** Deployment (19-21 weeks)
- **Phase 7:** Post-Launch and Marketing (Ongoing)

- **Resource Planning:**

- **Equipment and Tools:**

- Servers for Development and Testing
- High performance PCs for software design by the development team.
- Tools for collaboration.
- System of version control. (Git)
- Testing Instruments (Selenium for automated testing)

- **Software and Technologies:**
 - Front-End (HTML, CSS, Bootstrap)
 - Back-end (Php, Laravel)
 - Database Management System. (MySQL)
 - Server Hosting (LocalHost)
 - Payment Gateway (COD, Bkash, Nagad)
 - Security Software and SSL Certificates
- **Data and Content:**
 - Product Data: Got from Photographers across the country.
 - Product Images: The images are collected from several photographers and their captured photo.
 - User Documentation: This thing is prepared by me.
- **Training and Skill Development:**
 - As needed, offer extra training on particular technologies and tools.
 - Ensure the development team has the requisite knowledge and abilities in database administration, security, and e-commerce development.
- **Risk Management:** A SWOT analysis evaluates a project's Opportunities, Weaknesses, Threats, and Strengths. The Boi Bari: A Web-based Freelancing Platform for Hiring Photographers has the following SWOT analysis:



- **Communication Plan:**

- Stakeholder Meetings: Goals: Inform stakeholders of project requirements, collect feedback, and track progress.
- Participants: Include stakeholders and team members.
- Frequency: Every two weeks or as the project plan specifies.
- **Change Control Meetings:**
 - Purpose: Discuss and approve any modifications to the project's requirements or scope
 - Participants: The supervisor and the team members.

1. SN	Components	Estimated Cost (BDT)
1	Hosting and Domains	5000-5500
2	Going to visit Photographers	6000-6500
3	Taking online classes or receiving training to learn new technologies	4000-5000
4	Others (e.g., Trade licenses, tools)	7000-8000
5	A contingency	2200-2300
Total Estimated Cost		24200-27300

Table 3.4.1: Financial analysis

3.5 Summary

Photolancer's upcoming phases involve detailed needs analysis and design specifications for a dynamic digital platform. User needs, market trends, and technological advancements will define its key features, ensuring Photolancer not only meets but exceeds future user expectations. The design specification will include a robust architectural framework, incorporating seamless functionality and advanced security protocols. Anticipating market expansion, these forward-looking strategies position Photolancer as an innovative and future-ready solution, set to transform the freelance photography market in Bangladesh.

CHAPTER 4

Implementation

4.1 Overview

Photolancer carefully looks at current digital photography marketplaces to find ways to improve user engagement, expedite professional hiring, and create cooperative communities. Photolancer wants to establish itself as a top option for employing independent photographers by evaluating the advantages and disadvantages of existing platforms. This assessment serves as a framework for direction, assisting the project in overcoming obstacles and implementing tried-and-true tactics to make sure Photolancer develops into a well-known and trustworthy destination for clients and photographers in the years to come.

4.2 Prototype Design

A detailed plan of the platform's user interface and user experience was created as part of the Photolancer project's prototype design. The main goal was to create a smooth and intuitive navigation system that would make it easy to hire photographers, market services, and handle reservations.

- **User Interface Design:** HTML and CSS were used to create the platform's fundamental layout and design. Frameworks like Bootstrap was used to ensure a visually appealing and responsive experience across all devices and screen sizes.
- **Backend Development:** The backend development framework, PHP-Laravel, provided a stable and expandable platform basis. The database schema was painstakingly created to effectively manage user information, listings for photography services, booking transactions, and communications between customers and photographers.
- **Feature Interactivity:** Interactive elements like user profiles, service classification, real-time notifications, and sophisticated search capabilities were

all incorporated in Photolancer's prototype. To guarantee a flawless experience for clients and photographers, these features underwent extensive usability and performance testing.

- **Framework for Testing:** To automate the testing procedure, PHP Laravel was included. By guaranteeing that new features did not create defects or regressions, this methodology allowed for continual testing and validation of the software, preserving the platform's performance and stability.

4.3 System Testing

The System Testing assesses Photolancer's response to fluctuating traffic loads and makes sure it stays stable and effective. Several crucial elements were the focus of the testing process:

- **Load Testing:** We evaluated the scalability of the platform by simulating different traffic volumes. In order to make sure the system could manage peak traffic without experiencing performance deterioration, it was tested with varying amounts of concurrent users. Important elements including load distribution, service search response times, booking procedures, and profile interactions were assessed by the testing. In order to provide a smooth experience for both clients looking for photos and photographers managing their reservations during peak usage, our simulations made sure Photolancer could effectively handle high demand.
- **Stress Testing:** To ascertain the platform's breaking point, stress tests were carried out. This made it easier to find places that needed optimization and possible weaknesses in the system's infrastructure.
- **Security Testing:** To find and fix weaknesses in data management and transactions, we conducted thorough security testing. One of the main priorities was making sure user data was private and transactions were secure.
- **Testing User Feedback:** To improve the user experience, usability testing

sessions were used to get user input. This required tracking user behavior on the platform and pinpointing areas that needed work.

4.4 Summary

The goal of the Photolancer project's implementation and testing stages was to provide a platform that was secure, scalable, and easy to use. Modern web technologies were used in the prototype design to create an intuitive user experience, and system testing made sure the platform could scale under different traffic loads. To safeguard user information, reservation details, and transactions, security procedures were thoroughly verified. The platform was improved, any vulnerabilities were fixed, and a solid, dependable user experience for clients and photographers was guaranteed thanks in large part to the insights gathered from these procedures.

CHAPTER 5

Result and Analysis

5.1 Overview

I discuss the Photolancer platform's performance evaluation and experimental testing in this chapter. These procedures are essential for evaluating the system's performance in various scenarios and making sure it satisfies the necessary requirements for dependability, effectiveness, and user satisfaction.

5.2 Experimental:

The Photolancer platform was thoroughly tested during the experimental phase to make sure all features operated as planned and to pinpoint areas that needed development. The testing procedure was broken down into multiple essential parts:

- **Unit Testing:** To ensure correct operation, every single platform component was tested separately. Testing backend elements like Django models, views, and templates was part of this. PHP Laravel automated tests made sure that codebase updates didn't cause any new problems.
 - **Integration Testing:** This stage assessed how the platform's various components interacted with one another. It confirmed that a smooth user experience was provided by the seamless integration of the frontend (HTML, CSS, Bootstrap, Tailwind) and backend PHP Laravel.
- **Functional Testing:** Key functionality, such as portfolio uploads, profile management, and photographer bookings, were confirmed through functional tests. To make that the platform's functionality lived up to user expectations, these tests replicated real-world situations.
- **Load Testing:** The platform's capacity to manage numerous users at once was

evaluated using load tests. We measured response times and located performance bottlenecks by simulating different traffic loads. The scalability of the platform was ensured by this testing.

- **Security Testing:** The goal of security testing was to find and fix any possible flaws in the platform. We looked for typical security flaws including cross-site request forgery (CSRF), SQL injection, and cross-site scripting (XSS). Ensuring the protection of user data and secure transactions was a priority.
- **User Acceptance Testing (UAT):** Real users tested the platform as part of UAT in order to offer input on its overall usability and experience. The platform's user-centered enhancements were made possible thanks in large part to this feedback.

5.3 Performance

System performance evaluation focused on ensuring that Photolancer operates efficiently under varying conditions and provides a seamless experience to its users. Key performance metrics were analyzed, including:

- **Response Time:** Measured was the average time required to load pages and carry out user operations. To guarantee a quick and responsive user experience, optimizations were done to shorten response times.
- **Scalability:** It was evaluated whether the platform could grow with the number of users and volume of data. Enhancements were implemented to preserve system performance after it was observed to deteriorate under heavy traffic loads.
- **Resource Utilization:** For effective resource use, CPU, memory, and bandwidth usage were tracked. As a result, server configurations were optimized and operating expenses were decreased.
- **Error Rate:** We monitored and examined the types and frequency of errors that users encountered. Measures were taken to increase system stability and reduce mistakes.
- **Throughput:** It was calculated how many transactions the platform handled in a specific amount of time. This statistic aided in planning for future expansion and comprehending the platform's capability.

The Photolancer platform's advantages were emphasized throughout the performance testing phase, which also pointed out areas that needed work. Iterative optimization and ongoing monitoring made that the platform remained reliable, effective, and able to provide a top-notch user experience.

5.4 Summary

The test results and reports for "Photolancer" demonstrate the effective completion of the system, integration, and unit tests. Strong functionality, compliance with security standards, and positive user feedback all point to a reliable and excellent platform. Test results and reports provide essential documentation of the testing process, including the issues discovered, how they affect the program, and recommendations for improvements.

CHAPTER 6

Impact on Society, Environment, and Sustainability

6.1 Social Impacts:

The use of "Photolancer" has a great deal of promise to improve society in a number of ways.:

- **Increased Productivity:** The platform streamlines photographer reservations, saving time for both photographers and clients. By simplifying the search, hiring, and management of photography services, it lessens the complexity involved with more conventional approaches.
- **Accessibility:** Photolancer is easy to use and navigate for a wide range of users, including those with disabilities, welcomes to its user-friendly interface and accessibility features.
- **Supporting Local Photographers:** Photolancer assists independent professionals by giving them a venue to display their work and encourages the development of the local photography community by acting as a marketplace for local photographers.
- **Enriching the Photography Communities:** The platform promotes the development of lively communities where professionals, clients, and photography enthusiasts can interact, exchange ideas, and talk about current trends, so promoting a creative and educational culture.
- **Profitability Impact:** The platform can stimulate the local economy by creating opportunities for small businesses of photography and photographers to reach a wider audience and increase their productivity.

6.2 Ethical Aspects

Several ethical issues are involved in the creation and use of Photolancer:

- Ensuring robust security and privacy procedures to protect user data, including Photographer hiring information, payment information, and personal data. Before collecting and using user data, it is imperative to obtain explicit user consent and adhere to data protection standards.
- Providing clearly comprehensible information regarding terms of service, privacy policies, and data usage is a key component of transparency and user consent. before collecting and utilizing users' data, obtaining their express consent.
- Verifying that photographer recommendations are objective and untainted by outside commercial objectives. offering a wide variety of photographers and services to satisfy each client's needs.
- Developing a platform that is inclusive of all users, including those with impairments, and conforms with recognized accessibility requirements. It's critical to employ AI and machine learning ethically to make sure that tailored recommendations respect user privacy and don't excessively influence or manipulate user choices.
- Maintaining transparency in business practices, including clear pricing, services provided, and customer support. ensuring that the platform avoids using deceptive methods.
- Cultural sensitivity is the ability to respect cultural variations and ensure that content, services, and advice are suitable for a broad range of people.
- By upholding these moral standards, Photolancer can encourage integrity, confidence, and long-term "Photolancer" can increase honesty and confidence among its stakeholders and users by implementing these ethical

principles.

6.3 Summary

"Photolancer" Offering a comprehensive solution for hiring photographers, scheduling services, and matching clients with experts, Photolancer is a ground-breaking platform for the freelance photography industry. The platform helps small businesses and fosters trust by integrating cutting-edge capabilities and emphasizing an outstanding user experience. Its impact extends beyond business dealings; it supports regional talent and cultivates a thriving community. In order to ensure long-term success and a beneficial influence on the creative business, Photolancer wants to grow its user base, adopt sustainable practices, and maintain ethical standards as it develops.

CHAPTER 7

Conclusion and Future Work

7.1 Conclusions

The test results and reports for "Photolancer" demonstrate the effective completion of the system, integration, and unit tests. Strong functionality, compliance with security standards, and positive user feedback all point to a reliable and excellent platform. Test results and reports provide essential documentation of the testing process, including the issues discovered, how they affect the program, and recommendations for improvements.

7.2 Further Suggested Works

"Photolancer: A web-based Freelance Marketplace for Hiring Photographers " presents several prospects for additional development and improvement:

- **Integration of AI and Machine Learning:** Examine how to apply AI and machine learning techniques to continuously improve the platform's recommendation engine while increasing the accuracy and personalization of book recommendations.
- **Include aspects of virtual reality (VR) and augmented reality (AR)** to create immersive experiences that allow clients to virtually explore book storylines or accommodation options prior to making a purchase.
- **Blockchain Technology Integration:** Use blockchain technology to enhance data management and payment security and trust through safe and transparent transactions.
- **Increased Sustainability Features:** Promote more sustainable collaborations and exchange possibilities, as well as environmentally beneficial alternatives and environmental activities.
- **Global Expansion:** Add new languages, currencies, and regionally specific literature to make the platform more accessible to a larger group of international users.
- **Voice-Activated Assistance:** Increase accessibility and convenience by introducing

voice-activated tools for hands-free processing.

- **Constant Security Measures:** To protect user data while staying abreast of the constantly evolving threats in cybersecurity, employ state-of-the-art security protocols.

By taking advantage of these potential opportunities, "Photolancer" might develop into a more creative and comprehensive platform hiring and contact with Photographers that offers enhanced functionality, greater accessibility, and a more positive user experience for creative users worldwide.

7.3 Limitations/ Conflict of Interests

Limitations

Although Photolancer wants to be a one-stop shop for hiring photographers in Bangladesh, we must be aware of a number of restrictions and difficulties:

Technology Adoption:

- **Digital Divide:** Photolancer's reach may be limited because some potential consumers lack dependable internet access or are unfamiliar with digital platforms.
- **Technical Difficulties:** It can be difficult and resource-intensive to implement cutting-edge technologies like secure payment gateways, AI-powered suggestions, and picture optimization tools.
- **Market Competition:**
 - **Established Competitors:** Photolancer will face competition from existing freelance marketplaces and local photography networks with established user bases.
 - **Pricing Strategies:** It can be difficult to compete with well-known platforms on price while maintaining profitability.
- **Content and Censorship:**
 - **Regulatory Compliance:** Making certain that every piece of content conforms with regional laws and photographer license specifications.

- **Service Quality:** It can be difficult to uphold high standards of service and confirm the legitimacy of photographers' portfolios.
- **Logistics and Coordination:**
- **Planning Infrastructure:** Effectively handling reservations, availability, and photographers' time-sensitive tasks.
- **User Engagement:**
 - **Community Build-up:** It takes constant creativity and communication to build and maintain an active community of photographers and clients.
 - **User Retention:** Maintaining user engagement and guaranteeing recurring use in a fiercely competitive market.

- **Conflict of Interests :**

Photolancer must be aware of any possible conflicts of interest that might occur:

- **Photographer and Client Relations:**
 - **Fair Compensation:** Making certain that photographers are paid fairly for their labor, particularly in cases when the platform collects a commission.
 - **Equal Opportunities:** Avoiding partiality and guaranteeing equal exposure for all photographers, irrespective of their platform affiliation.
- **Data Privacy:**
 - **User Data Use:** Striking a balance between user privacy protection and data protection regulations, as well as tailored marketing and suggestions.
 - **Third-Party Access:** Maintaining connection with outside service providers to make sure user information isn't abused or put at needless risk.
- **Commercial Interests:**
 - **Advertising and Sponsorship:** Openness in sponsorship and advertising agreements to preserve the platform's credibility and integrity.
 - **Platform Neutrality:** Making sure that business interests don't affect platform choices or jeopardize user confidence

We can create a more robust and reliable platform that benefits its users and stakeholders by acknowledging and resolving these constraints and possible conflicts of interest.

Reference

#1 Employ experts in freelancing: locate top freelancers online (October 26 ,2024)
Upwork. on the internet at <https://www.upwork.com/hire> (retrieved February 25, 2024).

#2 Online freelance service booking: Upwork offers the best services (November 27,2024).
Upwork. Visit <https://www.upwork.com/services> to learn more. (retrieved: February 25, 2024).

#3 Upwork (no date) Upwork is a freelance marketplace for professionals and clients. The marketplace is accessible at <https://www.upwork.com/>. (retrieved: February 25, 2024).

#4 Shared hosting plans: NAMECHEAP offers a quick and safe online service (no date).
Namecheap. The following URL is accessible:
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Appendix A

Course Outcomes, Complex Engineering Problems (EP) and Complex Engineering Activities (EA) Addressing

Title: Photolancer: A web-based Freelancing Marketplace to Hire Photographer

Students ID: 181-15-2071

CO Description for FYDP

CO	CO Descriptions	PO
Phase -I		
CO1	Integrate recently gained and previously acquired knowledge to identify a web-based Freelancing Marketplac problem for the Final Year Design Project (FYDP)	PO1
CO2	Analyze different aspects of the goals in designing a solution for this FYDP	PO2
CO3	Explore diverse problem domains through a literature review, delineate the issues, and establish this goals for the FYDP	PO4
CO4	Perform economic evaluation and cost estimation and employ suitable project management procedures throughout the development life cycle of the FYDP	PO11
Phase -II		
CO5	Design and develop technical solutions and system components or processes that meet specified requirements, ensuring compliance with public health and safety standards, as well as considering cultural, socioeconomic, and environmental factors in this FYDP	PO3
CO6	Choose and apply appropriate methodologies, resources, and contemporary engineering and IT technologies to address complex engineering processes, encompassing prediction and modeling, while adhering to relevant constraints in this FYDP	PO5
CO7	Analyze societal, health, safety, legal, and cultural considerations, along with associated responsibilities, in the context of professional engineering practice and the resolution of this problem, employing logical reasoning guided by contextual understanding.	PO6
CO8	Comprehend and evaluate the enduring sustainability and impact of professional engineering endeavors in addressing intricate engineering challenges within social and environmental frameworks.	PO7
CO9	Implement ethical principles and adhere to professional standards and norms in this FYDP	PO8
CO10	Capable of operating proficiently both individually and as a team member or leader across diverse teams and interdisciplinary settings in this FYDP.	PO9

CO11	Proficiently communicate with the engineering community and broader society regarding complex engineering endeavors, including the ability to comprehend and generate comprehensive reports and design documentation, as well as provide and receive clear instructions throughout this FYDP.	PO10
CO12	Acknowledge the importance of self-directed and life-long learning within the evolving landscape of technology, and possess the readiness and capability to engage in lifelong learning endeavors.	PO12

Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP), and Attainment of Complex Engineering Activities (EA)

Addressing CO (1 to 8), Knowledge Profile (K), Attainment of Complex Engineering Problems (EP):

SN	EP Definition	Attainment	CO	Justification (with Knowledge Profile)	References
1.	EP1: Depth of Knowledge required	Yes	CO1, CO2, CO3, CO5, CO6, CO7 and CO8	The project covers Engineering Fundamentals (K3) through process modeling, data design, and front-end development, showcasing the application of strong engineering principles. The project tackles Specialist Knowledge (K4) by integrating front-end and back-end design, interaction design, and user experience (UX), utilizing HTML, CSS, Django, Django Jasmine, Bootstrap, and Tailwind for both front-end and back-end development. This demonstrates expertise in developing a comprehensive web-based bookshop platform, encompassing buying, selling, exchanging, and requesting books.	Page no: [10,13-20,23-24], Section: [3.1, 3.3, 3.4, 5.1, 5.2] Page no: [21-24], Section: [4.1, 4.2, 4.3, 5.1, 5.2, 5.3]
				The project applies engineering practice and design (K5) by integrating design requirements such as user interface, security, scalability, customization,	Page no: [10-20],

				<p>compatibility, accessibility, and reliability, ensuring a robust and user-centric bookshop platform aligned with design principles. The project addresses engineering practice and technology (K6) by employing HTML, CSS, Bootstrap, JSON, PHP, Laravel, MySQL emphasizing safe and scalable development with Django's MVC framework and related tools.</p>	<p>Section: [3.1, 3.3, 3.4, 3.5]</p> <p>Page no: [21-22],</p> <p>Section: [4.1, 4.2, 4.3, 4.4]</p>
				<p>My project involves researching literature on K8 by reviewing similar platforms, conducting UI/UX studies, evaluating security protocols, exploring personalization algorithms, and analyzing industry trends. This research aims to inform the integration of innovative features into the system, ensuring informed decision-making throughout the development process.</p>	<p>Page no: [5-8],</p> <p>Section: [2.2, 2.3]</p>
2.	EP2: Range of Conflicting Requirements	Yes	CO2, and CO7	<p>My project tackles EP-2 by addressing challenges such as integrating diverse features while prioritizing user experience, balancing security with functionality, ensuring scalability and real-time data synchronization, adapting to evolving industry standards and privacy regulations, and implementing effective recommendation systems. This is achieved through careful planning, flexible development strategies, and continuous adaptation.</p>	<p>Page no: [7-8]</p> <p>Section: [2.4]</p>

3.	EP3: Depth of analysis required	Yes	CO2, and CO6	<p>This project aims to develop an online freelance photography marketplace called Photolancer, where users can hire, offer, and manage photography services. It focuses on enhancing user experience through contemporary front-end design solutions. For the backend, MySQL is used to ensure optimized user interaction, platform accessibility, and scalability, addressing various challenges in the process.</p>	<p>Page no: [21-22], Section: [4.2, 4.3]</p>
4.	EP4: Familiarity of Issues	Yes	CO8	<p>The Photolancer project fulfills EP-4 by leveraging insights from the digital content creation industry, optimizing processes for purchasing, selling, licensing, and requesting photography or visual assets. This enhances the user experience, prioritizes data security, and contributes to operational efficiency within the creative marketplace. By blending technical expertise with specialized knowledge, Photolancer delivers impactful, innovative solutions tailored to the evolving needs of the digital and photography sectors.</p>	<p>Page no: [5, 7-8], Section: [2.2, 2.4]</p>
5.	EP5: Extends of application codes	No	CO5	N/A	N/A

6.	EP6: Extends of stakeholders involved and conflicting requirements	No	CO8	N/A	N/A
7.	EP7: Interdependence	Yes	CO5	The project meets CEP, EP-7 by addressing high-level challenges throughout its stages, ensuring data integrity, security, and performance in database implementation for book buying, selling, exchanging, and requesting processes. It optimizes user experience through intuitive front-end design and conducts comprehensive testing to ensure robust functionality.	Page no: [23-24], Section: [5.1, 5.2]

Addressing CO11 with Complex Engineering Activities (EA) [Some or all of the following]:

SN	EA Definition	Attainment	CO	Justification	References
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1.	EA1: Range of resources	Yes	CO11	The development of this online book shop platform leverages a skilled team specializing in domains such as web development, user experience design, and database management. It involves meticulous financial resource allocation for infrastructure, marketing, and development needs specific to book retail. Tools like Django, Django Jasmine, Bootstrap, and Tailwind are utilized alongside programming languages, frameworks, and databases to ensure effective execution.	Page no: [21] Section: [4.2]
2.	EA2: Level of interaction	No		N/A	N/A
3.	EA3: Innovation	No		N/A	N/A
4.	EA4: Consequences for society and the environment	Yes		This project emphasizes societal impact by promoting literacy, supporting sustainable book practices, and ensuring ethical considerations such as strong security, privacy, and transparent business practices. It aims to foster community well-being and environmental stewardship through its initiatives	Page no: [26-31], Section: [6.1, 6.2, 6.4]

5.	EA-5: Familiarity	Yes	The Comparative Analysis for this freelancing marketplace platform evaluates market competitors like Upwork, Fiverr & People per hour to highlight Photolancer's unique features in book retail, including security, personalization, and customer engagement. This analysis enriches market understanding and informs strategic decisions aimed at enhancing competitiveness and value proposition in the online book retail sector.	Page no: [5-7], Section: [2.1, 2.3]
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Addressing CO (4, 9, 10, and 12):

SN	COs	Attainment	Justification	References
1	CO4	Yes	The project captures CO4 by integrating financial management practices tailored to the online book shop platform, including budgeting, resource allocation for infrastructure and development, cost management for operational efficiency, and risk mitigation strategies. It ensures efficient fund distribution, monitors expenditures, and identifies optimization areas while maintaining high-quality service delivery in the book retail sector.	Page no: [17-20], Section: [3.4]
2	CO9	Yes	The project upholds ethical practices in the online book shop platform by prioritizing user privacy, maintaining transparency in data usage, providing fair book recommendations, respecting cultural sensitivities, and promoting accessibility. These efforts foster trust, transparency, and integrity among stakeholders in the book	Page no: [27-28] Section: [6.3]

			retail community.	
3	CO10	No	N/A	N/A
4	CO12	Yes	The implementation phase of the online book shop platform emphasizes lifelong learning through diverse testing protocols, automated frameworks, and CI/CD pipelines. This approach ensures ongoing improvement and adaptation to emerging trends in book retail technology, with results analysis continuously refining the platform for enhanced effectiveness.	Page no: [23-24], Section: [5.1, 5.2, 5.3]

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