



Faculty of Computer Science and Information Technology

Freelancers Digital Agreement System

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Bachelor of Computer Science with Honors

(Software Engineering)

2020

FREELANCERS DIGITAL AGREEMENT SYSTEM

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This project is submitted in partial fulfilment of the
requirements for the degree of
Bachelor of Computer Science with Honours

Faculty of Computer Science and Information Technology
UNIVERSITI MALAYSIA SARAWAK

2020

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ACKNOWLEDGEMENT

Primarily I would like to praise the Almighty ALLAH for being able to finish my final year project with success. Then I would like to thank my supervisor Abdul Rahman Bin Mat, whose valuable suggestions and instructions have served as the major contributor towards the completion of the project and his guidance has been the ones that helped me to complete this project and make it a full-proof success.

Then I would like to express my deep gratitude to my final year project instructor Prof. Wang Yin Chai and examiner Dr. Suhaila Binti Saeed whose project guidance and instructions have been helpful in various phases of the completion of the project appropriately.

Last but not least I would like to offer my special thanks to my friends and seniors who helped me to complete my project.

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LIST OF ABBREVIATIONS

AD – Advertisement

ID – Identification

ERD – Entity Relationship Diagram

URL – Uniform Resource Locator

SDK – Software Development Kits

SMS – Short Message Service

ABSTRACT

This project is about developing a web-based system that will provide a platform for the freelancers of Bangladesh to work and earn money. Currently, people of Bangladesh are using a bidding system or direct booking system for buying and selling freelance services. There are very limited opportunities for freelancers to promote their work. The purpose of the proposed system is to provide a platform where freelancers will be able to promote and utilize their skills. It is hoped that the system that is proposed in this project, will create a bridge between clients and freelancers through an agreement.

Keyword-freelancer, bidding, promote, agreement

ABSTRAK

Projek ini adalah untuk mengembangkan sistem berasaskan web yang akan menyediakan platform bagi para pekerja bebas Bangladesh untuk bekerja dan mendapatkan wang. Pada masa ini, penduduk Bangladesh menggunakan sistem penawaran atau sistem tempahan langsung untuk membeli dan menjual perkhidmatan bebas. Terdapat peluang yang sangat terhad untuk pekerja bebas untuk mempromosikan pekerjaan mereka. Tujuan sistem yang dicadangkan adalah untuk menyediakan platform di mana para pekerja bebas akan dapat mempromosikan dan menggunakan kemahiran mereka. Diharapkan sistem yang dicadangkan dalam projek ini, dapat mewujudkan jambatan antara pelanggan dan pekerja bebas melalui perjanjian.

Kata kunci-pekerja bebas, pembidaan, promosi, perjanjian

CHAPTER 1 INTRODUCTION

1.1 Introduction

Digital technology has become a part and parcel of our daily life. Computers, laptops, software, mobile, calculators are the most common digital gadgets that we use in our daily life. Today it is unimaginable to spend a single day in the world without technology. To keep up with other countries, the government of Bangladesh has taken an initiative to develop Bangladesh as a digital country by 2021 (Tasneem, 2019). It is a nation's dream to see Bangladesh as a digital country. Digital Bangladesh signifies that a step has been taken to integrate Information and Communication Technology in every aspect of life.

In today's world, most of the people are familiar with the term 'freelancer'. A freelancer is a person who sells work or services online by hour, day or job to different companies and clients according to their convenience. It provides the opportunity to start earning from home by freelancing a skill one already has. For being a part of this digital Bangladesh vision 2021, a web-based agreement system has proposed to develop for freelancers of Bangladesh. It will help them to make an online agreement with the customers for buying and selling services of different categories such as graphic design, web, video and animation, photography, writing, and translation et cetera. In Bangladesh, people can grab this opportunity of using this system as long as they get an internet connection and start earning money. The ultimate objective of Digital Bangladesh is to make more and more services available at the doorsteps of the people with increased digitalisation where possible and the theme of this agreement system is to establish a fast and easy way to buy and sell services.

1.2 Problem Statement

Unemployment is one of the major problems in Bangladesh. According to the Bangladesh Bureau of Statistics (BBS), currently, the percentage of unemployed people is 4.17 (Neazy, 2019). A major portion of this unemployment rate is educated youth. About 41% of the youth of Bangladesh were unemployed in 2013 (LFMEAB, 2019). Now, it has increased to 46%. To overcome this problem, a goal has been set by the Bangladesh government to train 13,000 unemployed people in three specific ICT fields such as graphic design, web design and development, and digital marketing under the Professional Outsourcing Training Program. There are around 11,920 people who have already completed their training from the targeted range (Islam, 2018), but there is not enough job opportunity to appoint them immediately. However, freelancing systems can provide the facility to utilise the skills that they have learned and started earning money.

There are a few numbers of available Bangladeshi freelance websites. Some of them are using a bidding system or direct order system for buying and selling services like other freelance websites that are available worldwide. People are facing problems using international freelancing platforms in Bangladesh because of some limitations such as not having permission to access PayPal and high foreign transaction fees. The proposed system will provide an agreement system to the users of Bangladesh where the freelancer and customer can interact directly.

So, the challenge is to find a way to overcome all these difficulties and provide a system where people of Bangladesh can work according to their convenience.

1.3 Objectives

1. To design and develop a web-based digital agreement system through which freelancers can sell services of different categories.

2. To provide a digital agreement for hiring freelancers or buying services.
3. To provide a system to the freelancers to promote their skills.

1.4 Methodology

The waterfall methodology which is a sequential software development process will be used for this project. The five phases of the waterfall model are shown in Figure 1.1 (Alshamrani & Bahattab, 2015).

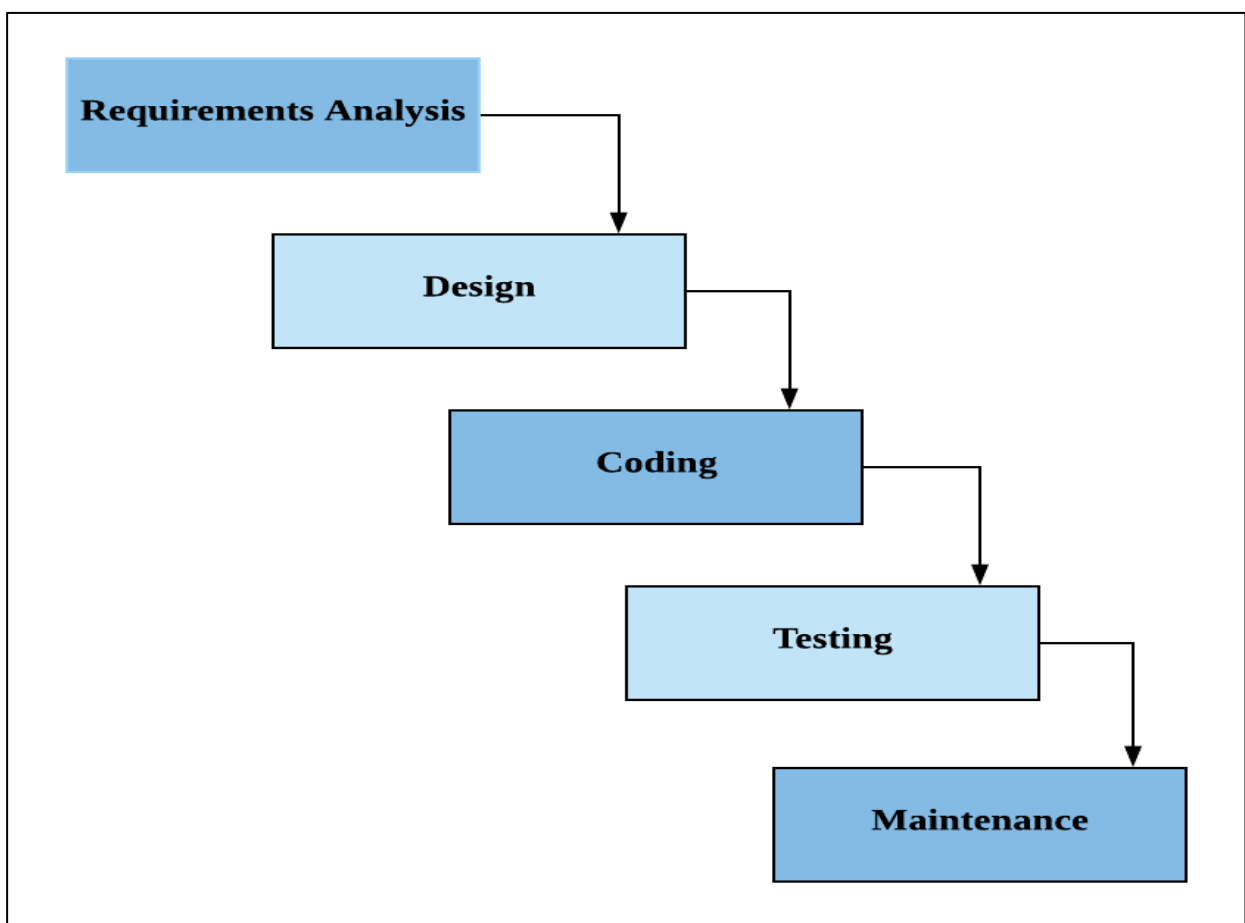


Figure 1.1: The Waterfall Model (Alshamrani & Bahattab, 2015)

This project aims to design and develop a web-based system in a short period of time that can function optimally. An incremental approach is suitable for developing a good quality web-based system (Howcroft & Carroll, 2000). In the waterfall model, the logical

progression of phases is seen as flowing downwards like an incremental waterfall. The brief description of each phase of the waterfall model is given below.

Requirements Analysis: The first important thing is to gather requirements to design and understand the functionality of the system. The requirements of the system are listed in this phase to analyse the needed hardware and software to complete the project. The requirements should be freeze before going to the next stage (S.Balaji & Murugaiyan, 2012). It will ensure the smooth completion of the next phases.

Design: The next step is to evaluate the gathered information from the previous phase and choose the appropriate algorithm design, software architecture design, database conceptual schema, logical diagram design, and data structure definition. This phase is important for planning and finding solutions for software problems.

Coding: In this stage, the design will be converted to the actual code. Proper completion of the previous phases makes it easier for the programmer to implement.

Testing: Real testing takes place in this stage to find the bugs and system glitches. Fixing bugs and proper execution of this phase ensure the client's satisfaction.

Maintenance: This stage deals with the modifications, improvements, error correction, and refinement of the software after releasing the product (Alshamrani & Bahattab, 2015).

The waterfall model follows this sequential order. Each phase is completed in a specified period of time, after that it moves to the next phase and proper documentation is followed for the quality of development. This model forces to be extraordinarily disciplined in its design and structure and helps to manage the project from design and development to testing and implementation. It is a good choice when clients know exactly what they want and there are no chances of last-minute changes. The requirement will be

freeze before going to the design phase. The client of this project is the main-decision maker and he is very clear about his expectations. So, there are no chances of changing the requirements. Furthermore, it is difficult to set up a meeting frequently with the client. When the requirements are very clear, it becomes easier to have an output in mind. This will help to develop the system faster. The above reason is why the most suitable methodology for this project is the waterfall model.

1.5 Scope

1.5.1 Users

There are three types of users in this system such as client, freelancer and admin. In this project, a web-based system will be developed that focuses on providing an online system for freelancers where they can make a digital agreement with the customer for buying and selling services. The proposed method is to create a system in which the freelancers can easily start conveniently earning money.

The freelancers who have an account in this system will be able to create their profile. They can add their qualifications, skills in the profile. It will be shown to the customer when they view their profile. A good profile can encourage the customer to hire them. Any user who has an account in the system, will be able to post an AD for hiring a freelancer or giving services. Additionally, the customer and freelancer will be able to communicate through messages.

It will link freelancers with the customer by a digital agreement through which they can communicate and complete their jobs.

1.5.2 Functionalities

1. *User log in:* The users of this system can create their user account and log in to the system. The users will be able to verify their accounts through phone number authentication. We will store the user details in a Database.

2. *Post an AD:* The users of this system can post an AD for hiring freelancer or giving service. They can select post an AD option and choose whether they want to hire or give services. Then they need to add the description and budget.

3. *Find services:* The users who are looking for a service, they can select the find service option and search the required service in the categories or search by keyword.

4. *Find jobs:* The users who are looking for a job, they can select find jobs option and search jobs.

5. *Send application:* The freelancers who want to apply for a posted job AD, they can select the job and then select the send application option. In the application, they can attach their qualifications, skills and the price that they will charge.

6. *Agreement:* If freelancer and customer agree with the requirements and budget, then the customer can create an agreement. The title of the service, client's name and phone number, freelancer's name and phone number, agreement ID, service charge and summary of the service will be mentioned in the agreement. The client needs to complete payment and inform the admin to make the agreement active and freelancers can request to release their earnings after finishing their job.

7. *Feedback:* After finishing the job, the freelancer will be able to provide feedback and the client can also give feedback to the freelancer.

1.6 Significance of Project

This project will provide an agreement based freelancing system where freelancers can communicate with their clients and update the progress of their work through a digital agreement. It will facilitate the users with the opportunity to post job AD for hiring freelancer and at the same time to post service AD to promote freelancers' skills that they have. This digital agreement will create a bond between a customer and the freelancer. This will help both parties including the freelancers and customers to feel safe while buying and selling services. The freelancer and customer can exchange their feedbacks using this agreement. This system will keep the record of all agreements.

1.7 Project Schedule

The project schedule is a listing of a project's milestones, activities, and deliverables, usually with intended start and finish dates. To complete this final year project, all progress will be done throughout the first and second semesters of the academic year of 2019/2020. The Gantt Chart of the project schedule is added in Appendix A.

1.8 Expected Outcome

A web-based system for the freelancers in Bangladesh that will provide a system to buy and sell services of different categories through an online agreement. This will be an automated system for buying and selling services in a fast and easy way and the system and users will be maintained by the administration.

1.9 Thesis Outlines

Chapter 1: Introduction

This chapter introduces the content of this project briefly. It consists of a project title, introduction, problem statement, objectives, methodology, scope, significance of project, project schedule, and expected outcome.

Chapter 2: Literature Review

Chapter 2 discusses the existing systems that are similar and related to the proposed project. In addition, the advantages and disadvantages of the proposed system over the existing ones will be presented in Chapter Two.

Chapter 3: Requirement Analysis and Design

This chapter will explain the detailed of the methodology used to develop this project. All the requirements of the project will be listed in this chapter. Context Diagram, Data Flow Diagram, and Entity Relationship Diagram will be used to represent the logical design of the proposed system to satisfy the listed requirements. Interfaces of the system will be added to give a physical overview of the proposed system.

Chapter 4: Implementation

In chapter four, outcome of the project will be explained. Each module of the system will be described with sample interface in this chapter.

Chapter 5: Testing

Once the system is being developed, testing will take place. The result will be evaluated and explained in the chapter five.

Chapter 6: Conclusion and Future Work

The conclusion of this project will be made in the last chapter which is chapter six. This includes the contributions and limitations of the system and brief on future work.

1.10 Summary

As a summary, this chapter is intended to provide an overview of the entire system. This system will be able to provide an online agreement system where freelancers can make a digital agreement with their customers and start earning money. This digital