UNIVERSITI
TEKNOLOGI
PETRONAS

SOFTWARE ENGINEERING TDB2163

Group Project Report

'Trade-D Logo Designing Website'

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TRADE-D

Software Project Management Plan

1. INTRODUCTION

1.1 Project Overview

1.1.1 Objectives

The objective of this project is to develop an e-commerce application for the company, TradeD, that sells designs of logo for different industries. The application will allow user to login, browse, conduct buying and selling of logos that is offered by TradeD. The application will perform the required calculations for the price of logos, and other costs such as postage costs.

1.1.2 Assumptions and constraints.

Constraints include the following:

- The deadline must be met.
- The budget constraint must be met.
- The product must be reliable.
- The architecture must be open so that additional functionality may be added later.
- The product must be user-friendly.

1.1.3 Project deliverables.

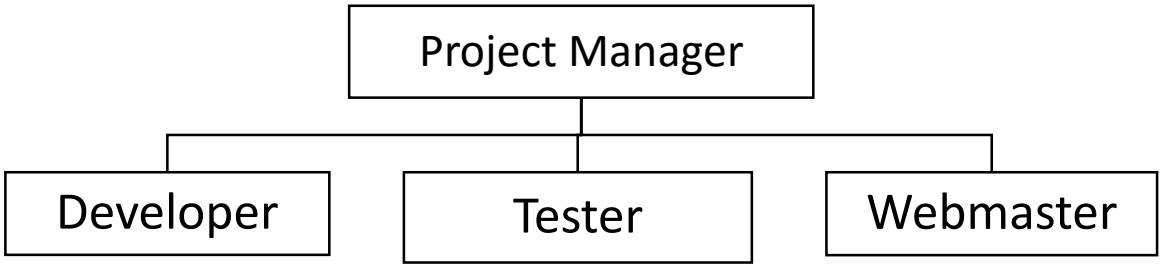
The complete product will be delivered 10 weeks after the project commences.

2 Project Organization

2.1 Process Model

The process model used for the TradeD project is the iterative model. We plan to use this model as the components of application will be able to be developed parallelly via this model. This model also allows changes of requirement to occur throughout the projects

2.2 Organizational Structure



Role	Responsibility	Person in Charge
Project Manager	• Ensure good communication among the team • Conduct project meetings • Manage and monitor resource allocation • Motivating team members	Ku Amirul Asyraf Ku Amir
Developer	• Design user interface, website layout using standard coding practice. • Defining use-case, object and UML diagrams required • Gather and refine specifications based on technical needs • Integrate data from services and databases	Arrie Muhammad Aries Sharif
Tester	• Plan and prepare phases of testing • Set up test environments • Execute and log tests, evaluate results and document problems found.	Afnan Amirruddin

	• Monitor testing and test environment using proper tools.	
Webmaster	• Maintain the website content • Debug issues that arise with website performance • Plan for future changes of website • Review statistics and monitor analytics	Muhammad Amirul Syafiq Khairuddin

3. Managerial Process

3.1 Management Objectives and Priorities

The management objectives for this project would be reporting status, management procedures and using existing software for development of the system. The developer would make a report to the project manager in weekly basis on technical details and makes decisions locally. Project manager then makes decisions and implement the guidelines. Then the manager would identify, mitigates and communicates the risks alongside the webmaster.

3.2 Assumptions, Dependencies and Constraints

Scheduling for TradeD is depending to the scheduling plans of the course as it is a long term project. The dates that are given for the system are also valid for TradeD. The budget for the development would be maximum of around RM 1590.00 and the cost of TradeD ‘s total cost is RM 676.35.

3.3 Risk Management

Major risks of TradeD:

- User interface might be confusing to some users
- Developers are lacking of HTML language knowledge
- Developers have no strong foundation in database
- Developers have no Java language knowledge
- Users might clash in real-time when clicking the same logo choice
- High traffic unexpectedly may be slowing the website down

3.4 Monitoring and Controlling Mechanisms

TradeD is tracked by web site (http://www.trade-d.com) and the periodic status meetings
arranged in the team. Every week developers report to the manager about the technical details.

4. TECHNICAL PROCESS

4.1. Methods

Identifying and justifying the plan for the e-commerce application

- Gather information and data needed.
- List down the application requirements in order to align with the business.
- Analyse the application carefully to make sure user can get the benefits.

Design the architecture of the system

- Get know the business goal and vision.
- Develop the plan from the data gathered.
- Identify the hardware and software the system required.

Coding the system

- Program the application according to the plan.
- Compile the coding.
- Make the code and software neatly arranged.

Installing, executing and testing in the real device

- Run the software in the selected hardware.
- Connect it to the database.
- Usability testing. The quality of the software is tested according to the user satisfaction.

Maintenance and update

- Repair and update the software continually.

4.2. Tools and Techniques

The computing system

Core i3 CPU, minimum 1 GB RAM, Windows 7 and above.

Software tools

Eclipse, MySQL, Adobe Dreamweaver, Adobe Photoshop

5. WORK PACKAGES AND SCHEDULE

5.1 Work Packages

Work packages in Project are:

- Java
- JavaScript
- HTML/CSS
- XAMPP

5.2 Schedule

Software Project Management Plant	11 /07/2016
Requirement Analysis Document	18 /07/2016
System Design Document	19 /07/2016
Object Design Document	25 /07/2016
Test Plan	29 /07/2016
Dead Line	08 /08/2016

TRADE-D

Software Requirement Specification

1.0. Introduction

1.1. Purpose

The purpose of this document is to present a detailed description of e-commerce system for TradeD company. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is primarily intended to be proposed to a customer for its approval and a reference for developing the first version of the system for the development team.

1.2. Scope of Project

The application involves the basic e-commerce activities, such as members' login, browsing, buy and sell activities. This system would be design to make logo designing easier for industries without risks of having copyright strike onto them. More specifically, the system would make the creative team in one's organisation could make their work optimized and would probably helping the company to cut budget on designers.

1.3 Definitions, acronyms and abbreviations

Term	**Definition**
E-commerce	Commercial transactions conducted electronically on the Internet.
Copyright	The exclusive legal right, given to an originator or an assignee to print, publish, perform, film, or record literary, artistic, or musical material, and to authorize others to do the same.
Creative team	A team that characterized by originality of thought or inventiveness; having or showing imagination.
Optimized	make the best or most effective use of a situation, opportunity, or resource.

1.4 Overview

The next chapter, the Overall Description section, of this document gives an overview of the functionality of the product. It describes the informal requirements and is used to establish a context for the technical requirements specification in the next chapter. The third chapter, Requirements Specification section, of this document is written primarily for the developers and describes in technical terms the details of the functionality of the product. Both sections of the document describe the same software product in its entirety, but are intended for different audiences and thus use different language.

2.0 Overall Description

In this section, background information of the project will be discussed and the product will be described. TradeD is a company that create and design a logo for another company. The company need an aid to ease the business between them and customer. The main point of the overall description is to make clear to the reader about how the product made.

2.1. Product Perspective

This application product is created for new bloom companies which tend to design logo for their business or a customer who wanted to create a logo for their organizations and club. Companies and organizations can send the desired design and the logo specification through online services by uploading it through our website or application. The TradeD application also serve users a platform or workspace software embedded with high technology tools to produce high quality of logo. The website also provide user with textbox that allow user to browse the web in order to get templates, ideas, and images that is useful for creating logo. Before the customers can use our software and upload the design, they need to have an account in our database. In that case, customer must register their account in our main website. The website is connected to our database which will eventually capture the data of customer that register in our website. After that, the customer must login our website every time the user want to use the service.

The uploaded logo and the saved work will eventually be sent to our database. User can refer back the saved logo which it is safe for the user as it is saved online. The user can retrieve back the logo by download it to the computer if they want to make a change. The TradeD business owner also can download the logo in order to print the logo as banner, flag and many more. Company also can request TradeD to make a logo by sending specifications of logo and company's scope of field in a word form. Finally, user can make an online payment to the TradeD business owner if they want to buy the product painted with their logo created by themselves.

2.2. Product Functions

The new software must contain many features which will allow customers to use many functionalities. As TradeD owner, they can see the list of member who has registered in the database and also they can retrieve the design order from customers. User can register and login into website in order to access the website. Then, they can browse the website freely, create and edit logos and submit the logo to TradeD owner to make order.

2.3. User Characteristics

There are two main type of user of this web. First, The TradeD owner and staffs and second, the TradeD customers which are the other company that wanted to create logo. We assume that user can use the product that we made as many company nowadays has become familiar with many design software. The product functionalities is almost similar with other design software but it is simple because we create it specific for making logo only. Thus, user can understand the software easily as it is simpler. Furthermore, we provide an interactive tutorial to make sure the user understand better

2.4. Constraints

Developers should consider that the product required portability which customers can use libraries and tools that afford to work with all common internet browsers. Furthermore, developers must concern with the privacy and safety of user as it is stored in online database. The necessary safety and precaution need to be applied in order to protect users. The other user should be constraint by developer from harming other users who is register to use the product.

3.0 Functional requirements

This section includes the requirements that specify all the fundamental actions of the software system.

3.1 User Class 1 - The User

3.1.1 TITLE: User Login

DESC: Existing user should be able to login into the website. The user should provide their email and password.

RAT: In order for a user to login.

3.1.2 TITLE: Sign Up

DESC: When a new user wants to use the service, the user need to create a new account. User will have to fill in personal details in the signup form.

RAT: In order for a new user to create an account.

3.1.3 TITLE: Checkout

DESC: After user has chosen the desired product, user proceed to checkout to process payment

RAT: In order for a user to pay for products.

3.2 User Class 2 - Website Owner

3.2.1

Feature: Website owner login to have full overview of the website

DESC: Website owner should be logged in to the website to access owner controls.

3.3 User Class 3 - Website Administrator

3.3.1

Feature: Administrator login in order to administer the system

RAT: An administrator should be logged in to the website to manage the website.

4. User interfaces

A first-time user of the application should see the homepage when he/she opens the application, See Figure 1. If the user has not registered, he/she should be able to do that on the log-in page.
If the user is not a first-time user, he/she should be able to see the search page directly when the application is opened, see Figure 2. Here the user chooses the type of search he/she wants to with logo provided by our application.
Every user should have a profile page where they can edit their e-mail address, phone number and password, see Figure 3. Also, the user can try to sign up / Login by clicking on top right menu

Figure 1 - Homepage

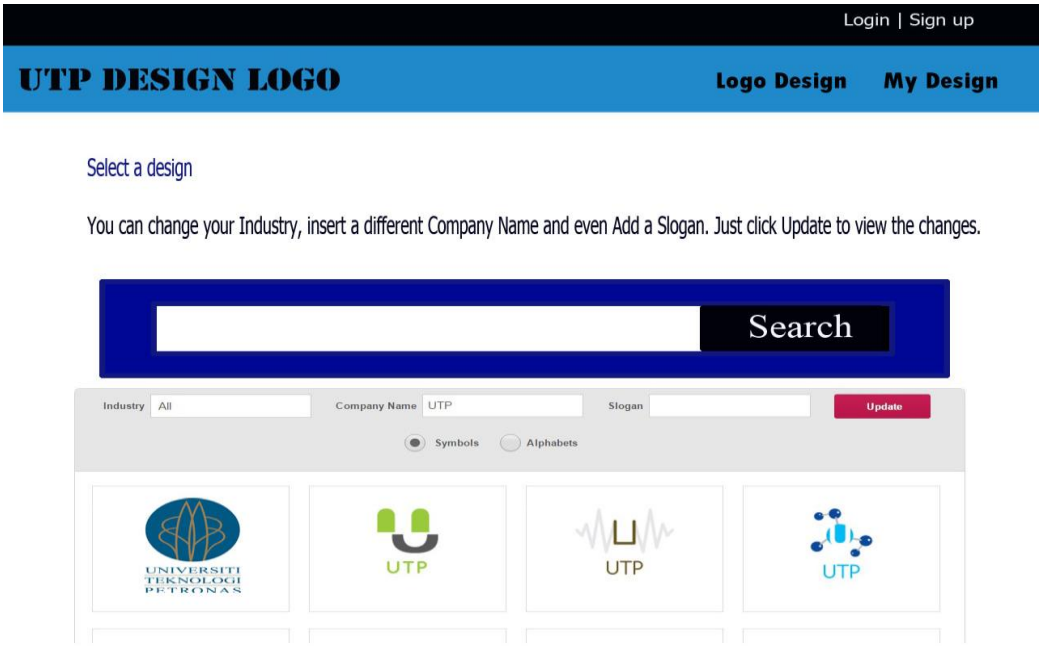


Figure 2 - Search

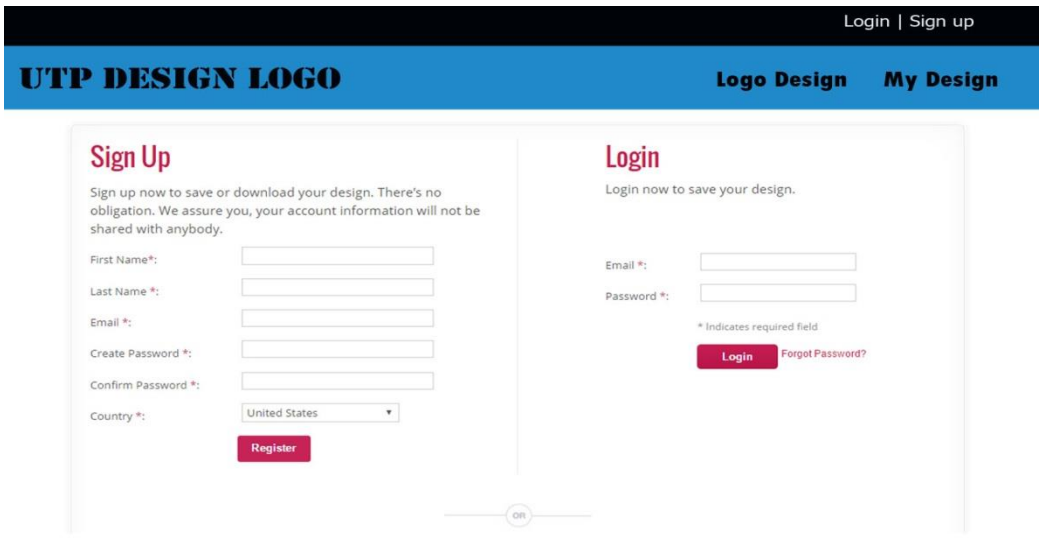
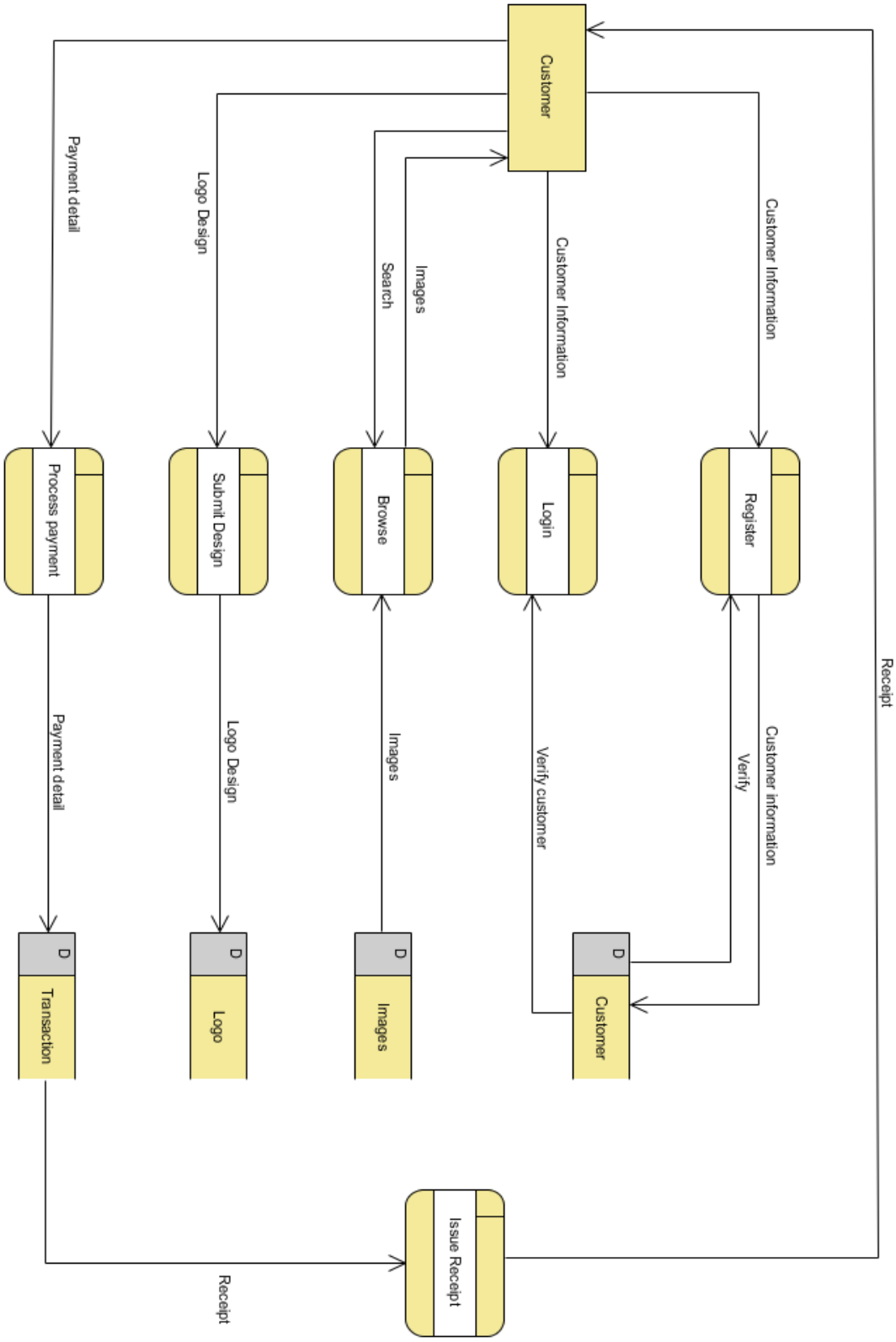


Figure 3 - Sign Up

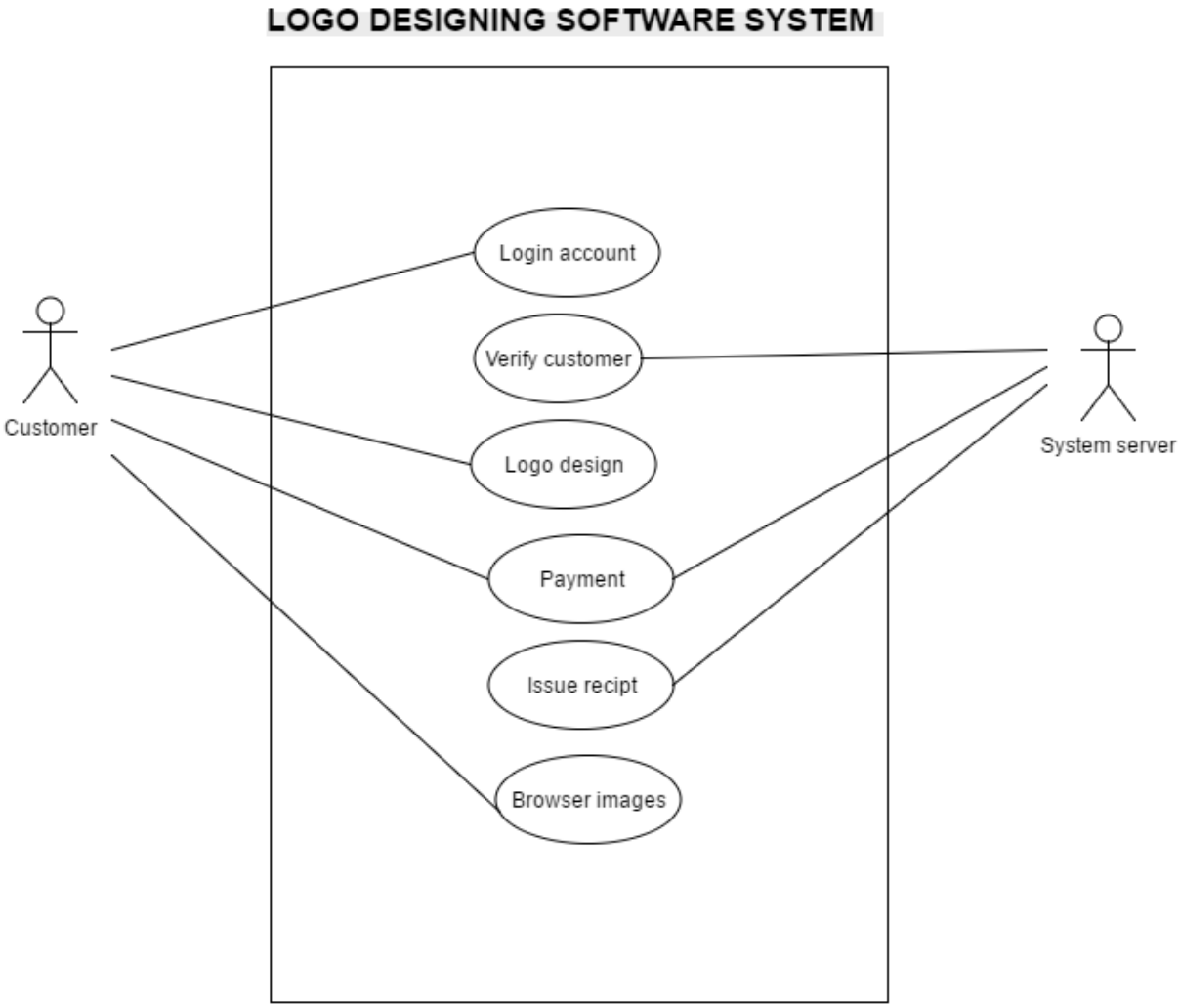
TRADE-D

Software Design Specification

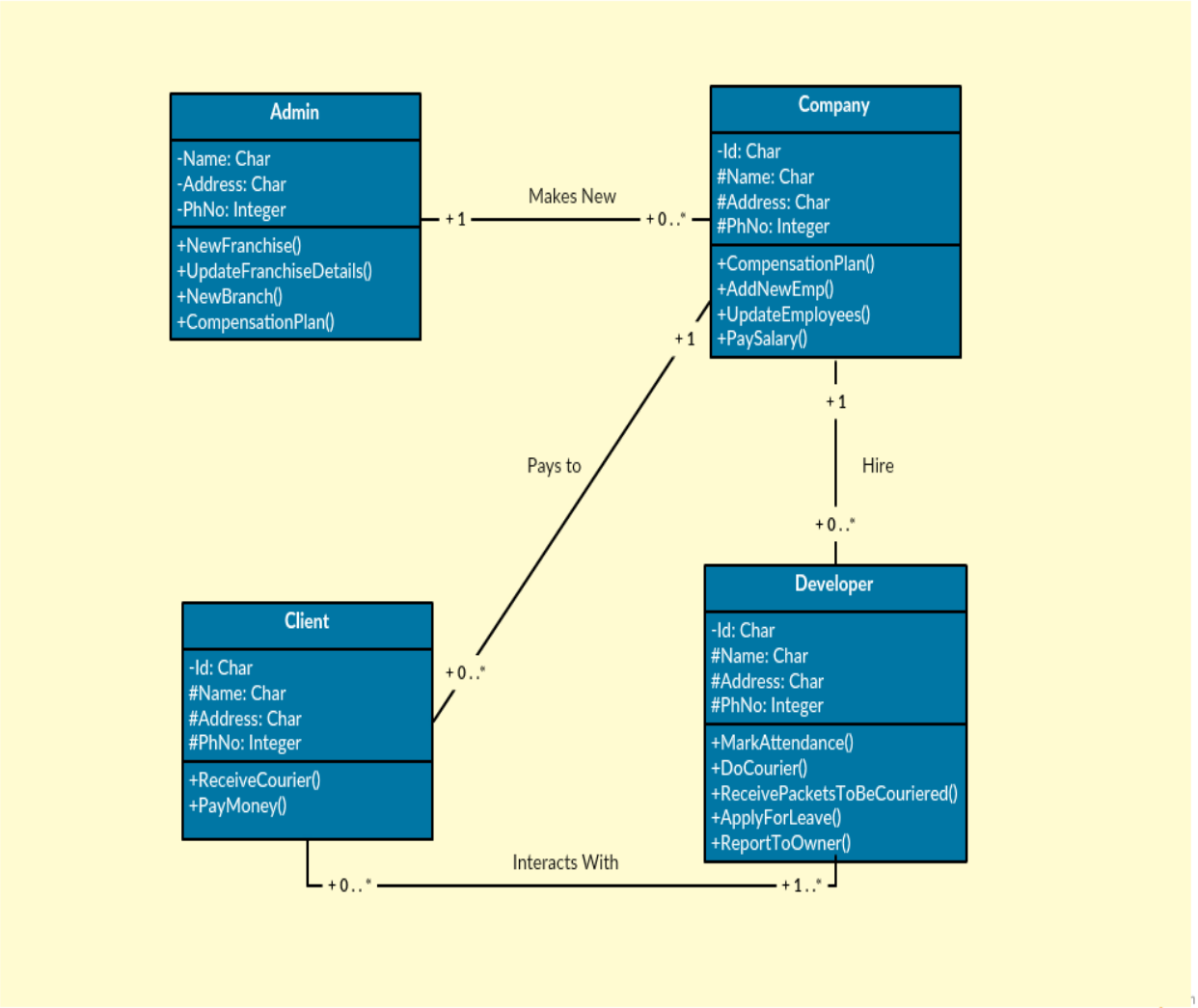
Data Flow Diagram



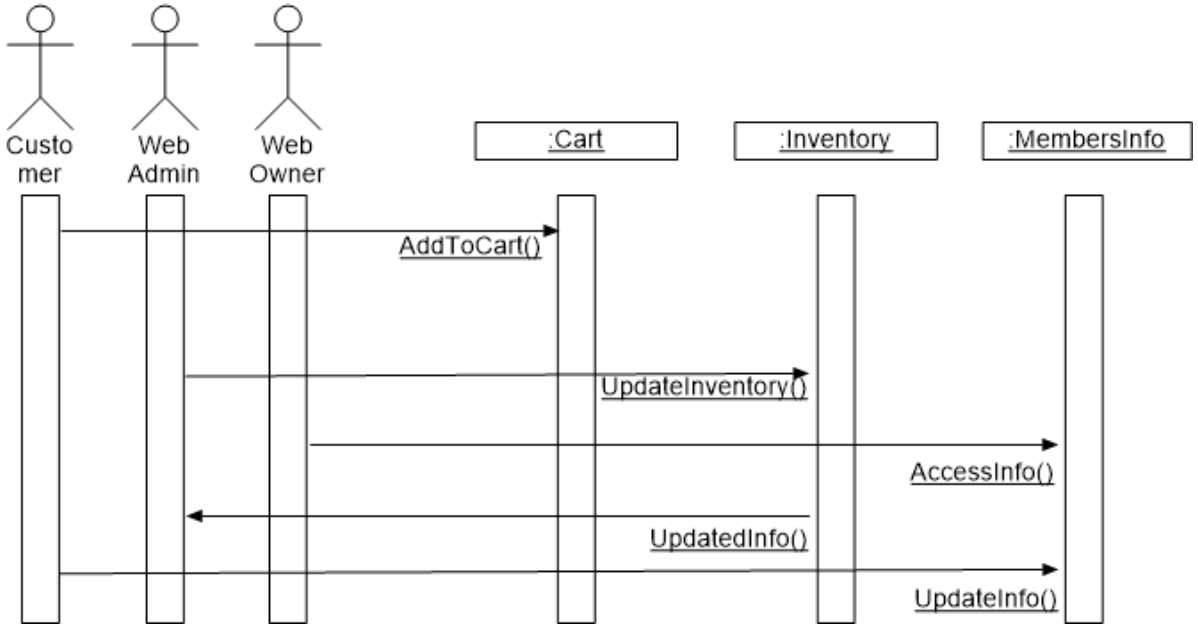
Use Case Diagram



Class Diagram



Sequence Diagram



Testing

To get an improved and error minimal website, the website has undergone many different testing process. The types of testing methods that the website have undergo are:

- Functionality Testing

In this testing we have checked all the functions of the website. Function like database connection, navigation tools, etc. For example, when a user submitted a form in the website, the submit flow must be correctly executed. Functionality testing also includes cookies testing, validating HTML or CSS and database testing. Cookies testing here include what the user has inserted in the login section.

- Usability Testing

In the usability testing, we make sure that the instructions are using simple English and minimal use of slang. The words are generally suitable and does not involve much understanding. The main menu should be on the top of the page same as other websites, so the user would navigate easily. Dark colours will be avoided as the colour is not suitable for the viewing pleasure. The contents inside the website is mostly about direct and understandable. It is safe to say that the content is acceptable.

When it comes to usability, there are a few things that need to be considered such as:

1. Effective
2. Efficient
3. Safe of use
4. Easy to learn
5. Easy to remember how to use

- Interface Testing

There are two ways of interface:

1. Web server and application server interface
2. Application server and database interface

We have checked the interactions between those two interfaces whether it can be executed properly or not. Also, we have checked if database or web server returns to error because of any request, the application server should display the error to the user.

- Compatibility Testing

We have tested the compatibility of the website in different web browsers on PCs and mobile. We have also tried to test the operating system compatibility of the website on different platforms. By doing this testing, we make sure that the website is compatible in different browser on different platforms.

- Performance Testing

Performance testing of our website will include:

1. Web loading testing: we have checked what will possibly happen when many users are accessing the same page simultaneously, whether it is going take time to load or not
2. Web stress testing: Web stress testing is generally given on input fields and login areas
3. Test application performance is done on different internet connection speed.

- Security Testing

Security testing is to ensure that the website secured from every perspective that could harm the actual website or other websites that are linked with. For example, when user pasting internal URL directly into browser address bar without login, we will test whether the internal page is open or not. If the internal page is open, that means our website still not secured to be used. We have used this kind of testing throughout our project to make sure our website is secured.

Conclusion

Using the Trade-D Logo Designs Website, https://www.trade-d.com, customers can browse and purchase logo designs for their company from any industries. Customers will be able to register or sign up on the website to create an account. They will be able to generate design using the search bar on the website. If they are interested with any of the design they can just click ‘Buy’ and the item will be added into the cart. The website will then perform the required calculations for the price of logos, and other costs such as postage costs and total cost will be displayed on the ‘Checkout page. Customer can continue to browse more logos or proceed to payment of logo. The logo will be emailed to customer in high definition output as well as other required documents.

For future development we expect to improve our website’s performance by upgrading the hardware, to ensure that we can have smooth performance and to reduce the possibilities of unscheduled downtime of the website.

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