FAST FOOD APPLICATION

CST-17 SOFTWARE ENGINEERING COURSE PROJECT: AN ONLINE CANTEEN FOOD ORDERING APLICATION

Group Leader: Margaret Mwewa F17040112

Group Members: Raymond Kuree F17040120

Kelvin Asare F17040111

Lukundo Kampeshi F17040109

Group Name: LKMR

Instructor: Liu Zheng

Due Date: 2019-10-27

❖ PRODUCT DESCRIPTION

As a group we decided to make an application designed to order food in our school canteen. This application is going to be built targeting smart phones and their users. We intend on making it desirable for both students and teachers to use seeing that they are the ones that access the canteen. Our goal is to have an application that can be used to browse through the different menu options, and allow you to order your food from outside the canteen. It will also have a provision that lets you pay from your phone and show you your order number and collection window.

When you go to the canteen you'll have to first decide on what you'd want to eat; therefore, you'll have to go from one desirable window to the next looking for what you might like. Doing this takes a bit of time and not only that, you will then have to queue up to place an order and then wait for the order to be prepared. The whole process up until you get your food will take time, and this further causes another problem, a crowd.

Having a large group of people in the canteen queuing up and standing around can lead to an overpopulated canteen. Once this happens, there will be fewer sitting spots, many people standing around, noise pollution, air pollution, to mention a few etc. etc. Paying for your food in the canteen is done via student card. In the attempt to eat fast and leave room for other students and teachers to sit down teachers and students are at a risk of leaving their student cards behind as we see this happening on a daily basis.

What problems will it solve?

Making this application will solve problems like time spent in the canteen will be reduced. If time spent in the canteen is reduced, then the flow of people in and out of the canteen can be more flexible thus reducing the crowd there too. With a reduced crowd, we get a quieter, comfortable and more hygienic environment to have your meal. It will also allow people to pay for their food from their phones; currently food in the canteen is paid for using student cards, when students and or teachers are done eating they are in a hurry to get back to class, assignments, etc. In their attempt to rush back they end up leaving their student card behind. Paying online will reduce the number of student cards left behind.

Why is it worth developing?

At the moment the only alternative to this application is going to the canteen itself to get your meal, eat it, spend so much time there, and be at a risk of leaving your student card behind. This application will be there to allow students to order their food from wherever they are, this lets them browse through what they want on their phones, choose a time to either pickup an order or eat from there during working hours. As a result, we will eliminate the queues and most of the crowd. There are no competitors in our given situation, meaning we will be the first ones to do an application that can work in our canteen and give people the afore-mentioned benefits.

What are its features?

One will open our application on their phone, there they can browse through the different menu options, select food, select a pick up time during the working hours, choose whether it's a sit down or take away or even delivery. From there they you pay from their phone and get an order number and window number.

Non-functional requirements and external documentation

The web application will need to be maintainable (serviceable), reliable, scalable, recoverable, etc. in order to make sure the performance is always optimal for the end-users.

We will provide integrated help text throughout the UI and help files to help the users better understand the application.

❖ USE CASES

1. **Browse different menus:** A student may not have the patience or time to walk between different vendors in order to compare various menus. With the fast food web app, he would be able to conveniently browse through different menus at a fraction of the time.

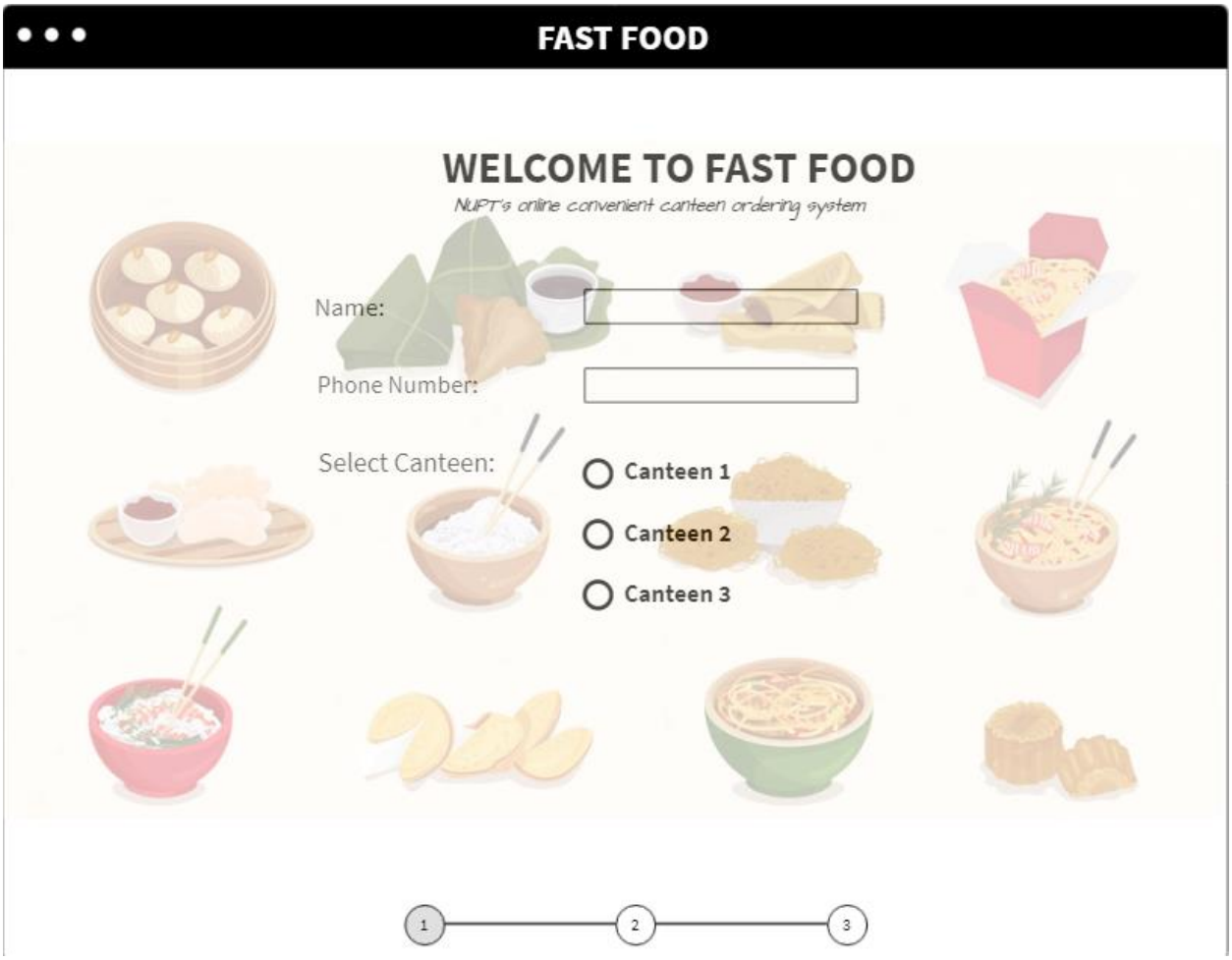
2. **Order food from your phone:** A student may have a limited time to have their meal before their next class. She would spend a lot of time queueing up in order to order her lunch. Through the use of fast food, she will be able to eliminate the queue up time and just directly collect her lunch as soon as she enters the canteen.

3. **Pay from your phone:** A teacher who rushed to the canteen after his last evening class may suddenly realize he has misplaced his campus ID. In order to order a meal, he would be forced to ask someone else to buy his dinner on his behalf. Through the use of fast food, he would be able to order his meal and make the payment through his mobile phone.

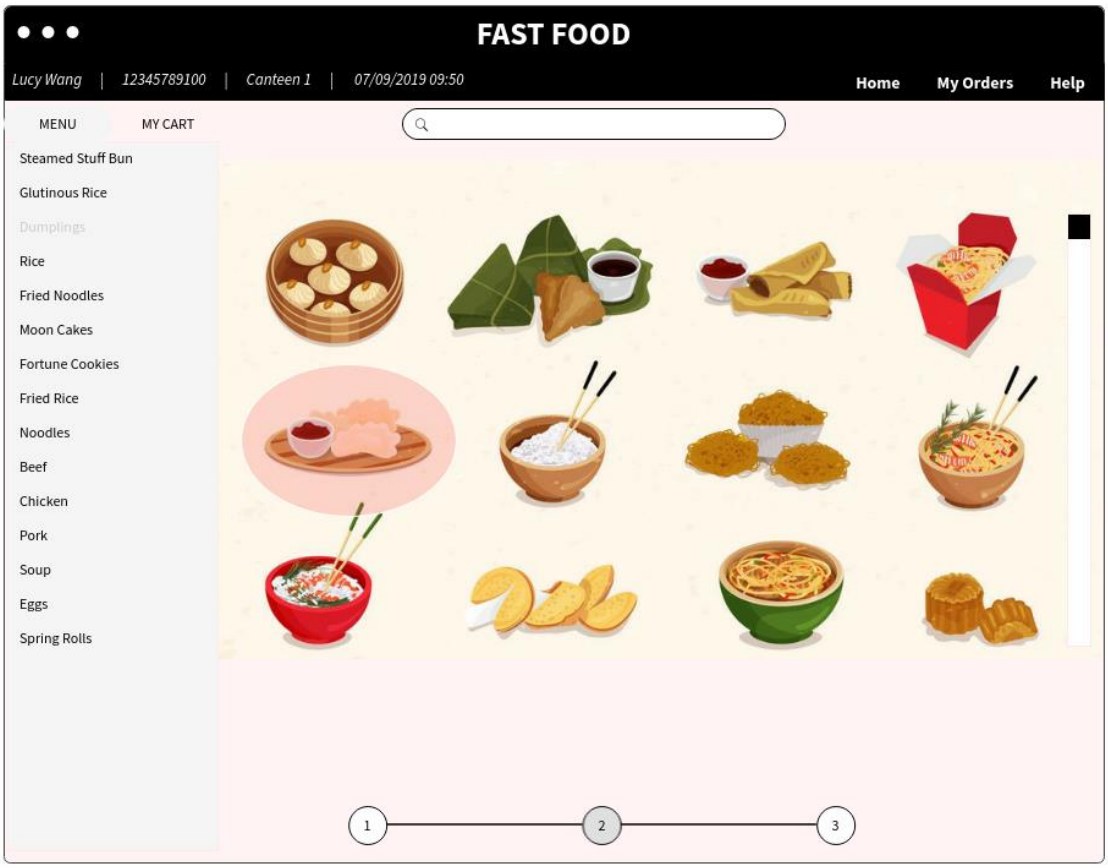
4. **Receive a collection number from your phone:** One student stands idly and looking confused as she awaits the meal she just ordered to be prepared and presented to her by the food vendor. The challenge is she does not understand Chinese and could not hear or understand her order being called out multiple times. Through fast food, she would only need to present her order number and receive her meal without the awkward language barrier.

❖ UI DIAGRAMS

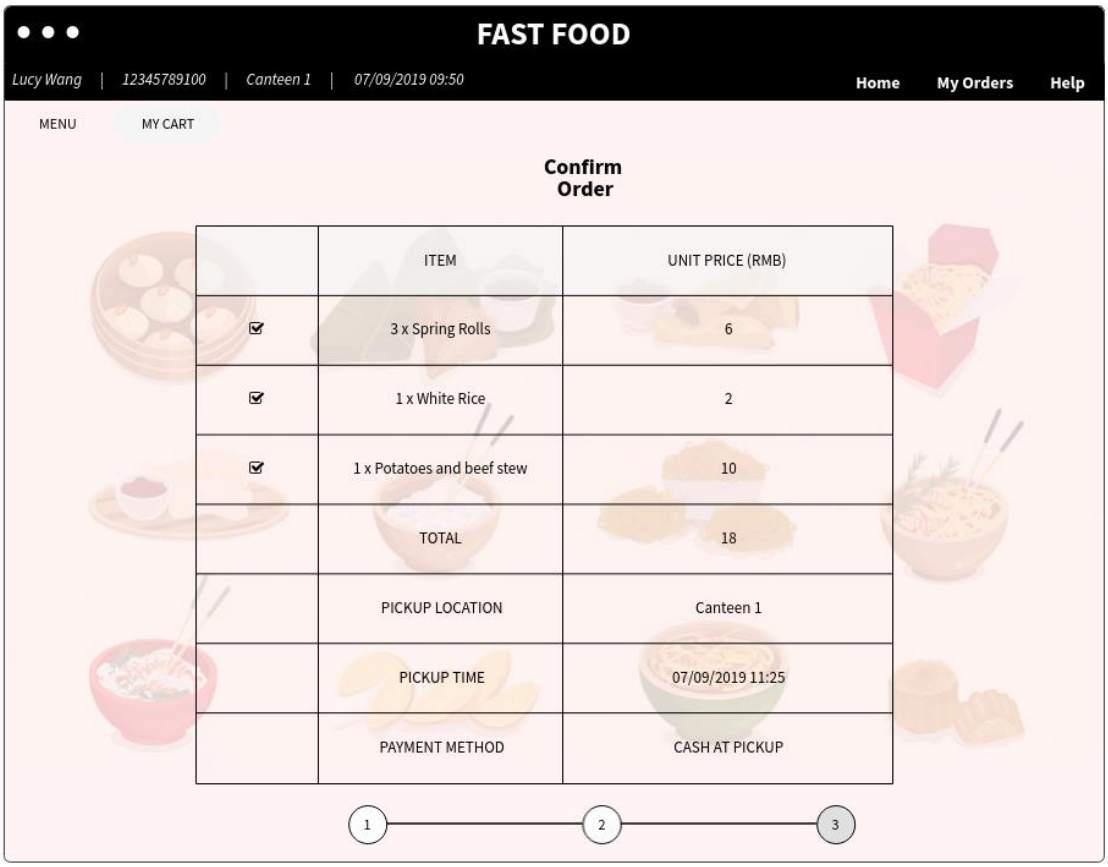
Login Page



Menu page


FAST FOOD
Lucy Wang | 12345789100 | Canteen 1 | 07/09/2019 09:50
Home
My Orders
Help
MENU
MY CART
Steamed Stuff Bun
Glutinous Rice
Dumplings
Rice
Fried Noodles
Moon Cakes
Fortune Cookies
Fried Rice
Noodles
Beef
Chicken
Pork
Soup
Eggs
Spring Rolls
1
2
3

Checkout Page



❖ PROCESS

Software Toolset

We will use Hyper Text Markup Language (HTML), Cascading Style Sheets (CSS), Java Script (JS) and Simple Query Language (SQL) as our basic/fundamental programming languages. This product will run on a mobile phone, tablet or any device accessible to the internet via a web browser, our focus is the mobile phone since it is widely used by the group of people we are targeting.

HTML, CSS and JS will be used to build the basic foundation of the Web Application. SQL will be used to create and store databases for the storage of information such as the users' contact information, different food vendors found in the canteen, etc.

The user interface will be designed with the use of wire framing from an online platform (Mockflow wireframe pro)

Group Dynamics

The group leader (Margaret) will take up at the role as the project manager. She will oversee the whole project and will be responsible for keeping the project on schedule.

The remaining three group members will not have pre-assigned roles. Roles or tasks will be divided and assigned amongst them in accordance to specific tasks that will need to be carried out according to the best of their individual strengths and weaknesses.

Schedule/Timeline

Project Proposal:

The total scheduled time for the project proposal was approximately three weeks.

Task	Member responsible	Duration
Brainstorming of project ideas	Margaret, Lukundo, Raymond, Kelvin	1 week
Project proposal (vision, software, architecture)	Margaret, Lukundo	1-2 weeks
User Interface design	Margaret	1 week

Software Requirement Specification

The total scheduled time for the software requirement specification is approximately two weeks.

Task	Member responsible	Duration
UI diagrams	Margaret	1 day
Product Description	Margaret, Lukundo	1 week
Use cases	Margaret, Lukundo	1 week
Process	Margaret, Lukundo	1 week

We plan to complete each stage of the project in 1-2 weeks and will determine division of labor for each task at hand.

Risk Summary

The single most serious challenge that we will have is writing the code for this application and getting it up and running to suit what we want it to do; this puts us at a risk of having a code with so many errors and an application that might not work at all. We have some knowledge of coding, but not in depth to a point where we can write an application and have it running with no errors. We will mitigate this challenge by broadening our coding skills on our own; checking the internet when necessary and also by consulting our senior students so that they can help where we do not understand. Doing so can give us a properly functioning application. Another risk we may face is lack of cooperation and teamwork, it is highly probable that at most 2 out of the 4 group members will end up carrying all the workload by themselves. In an attempt to tackle this issue, we will have a clear division of labor or assign roles to each group member in order to complete tasks faster and efficiently whilst each group member contributes to the development of the project.