LONDON METROPOLITAN UNIVERSITY

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(इस्लिङ्टन कलेज)

CS6P05 - Final Year Project Proposal

Mobile Application (Food ordering App)

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I confirm that I understand my coursework needs to be submitted online via Google Classroom under the relevant module page before the deadline for my assignment to be accepted and marked. I am fully aware that late submissions will be treated as non-submission and a mark of zero will be awarded

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1. Introduction

The food supply market is € 83 billion worldwide, or 1% of the total food industry and 4% of food sold by restaurants and fast food chains. In most countries, it has already matured, with an expected average annual growth rate of just 3.5 percent over the next five years. (McKinsey & Company, 2019)

In today's age of fast food and take-out, many restaurants have the customers who order food from home rather visiting the restaurant, but the problem was the order was placed over the phone which has many disadvantages like manual listing the order over phone may result to slow response in a customer service. Secondly, due to the oral communication over phone there may be misunderstanding which may lead to confusion and incorrect orders, and there is a lack of visual confirmation that the order was placed correctly.

Food ordering app is a mobile based application that stimulates the customers to place order through the mobile app by finding their favorite or nearest restaurant. For both customer and the restaurant, food ordering app greatly simplifies the ordering process. The app offers a user-friendly, interactive, and up-to-date menu with all the options available for the customers. People can find all the restaurants within one mile radius so that even if they want to visit nearby restaurants they can get all the information about the restaurant and the reviews given by other users for that restaurant. Customers will also be provided with the list of most popular food in their area.

Time is very essential in this busy world sometimes we don't even have time to cook nor to go out and eat. So, to minimize this problem, and to help those busy people who want food whenever and wherever they want. Some people don't want to go through all the headache to finding a nice restaurant, so through this app people can find the restaurant they want with all their information.

2. Aims and Objectives

The main aim of this project is simplify and to increase the efficiency of ordering process for both customer and restaurant, reduce the human error, and provide high quality service to the customers. Customers can also view the product they are ordering which helps customers in visually conforming the order they have placed. The aim of this project are as following:

- Reduce the time-consuming phone orders.
- No more busy phones while other customer is over phone ordering.
- Reduce incorrect order placement.
- Greater customer satisfaction.
- No more long queues while ordering.
- Management of remaining food of the day by offering it in minimum price.

The objective of this project is to develop a mobile application and accomplish the following objectives:

- Make food ordering easy and fast.
- Provide information about nearby restaurants.
- Online payment.
- Food waste management.
- Track the ordered item.
- Recommend customer about the trending food in their area.

3. Expected Outcomes and Deliverables

After the completion of this project an android app will be available as a final product. The mobile application will allow people to place their order through our app and get the food delivered anywhere they want or they can simply get all the information on the restaurants they want. Customers will be able to pay through online payment or direct pay while the food is delivered. The customer can also track their food through our app. The customer will also be provided with offers from time to time. There is a way to manage the remaining food of the day by giving it in minimum price for limited time like 7pm to 9pm.

4. Project risks, threats and contingency plans

The risk and threats of this project are listed as follows:

- Tracking ordered food.
- Legal Issues in tracking system: Privacy Issues (Thomson Reuters, 2019)
- In case the restaurant is running out of food and it is not updated the customer may get disappointed
- In food waste management there may be delay live data about the available list.

To overcome the risk and threats of this project the following steps can be taken:

- If tracking system is not successfully developed the status of food will be provided.
- Follow all the law carefully keeping the data safe
- Once the fully working system is build work more accurate real time data.
- Work on providing the live data more accurately.

5. Methodology

I have selected prototyping model as a methodology to complete this project. In prototyping model a prototype is built, tested and then reworked as necessary until an acceptable outcome is achieved from which the complete product can be developed. This model works best in situations where not all requirements of the project are known in detail ahead of time. It is an iterative process of trial-and-error between developers and users. (TechTarget, 2019) So, prototype module will help in check if the features would be functional or not. And in case it is not functional I can change it or re-build the function.

- Requirements gathering and analysis
- Quick design
- Build a Prototype
- Refining prototype
- Implement Product and Maintain (Guru99, 2019)

6. Resource Requirements

To successfully complete this project there are some hardware and software requirement. Laptop and android phone are required for hardware and as for software Flutter, Dart, Python, firebase, and Database are required. For frontend Flutter, Dart will be used, for the backend Python will be used and for storing the data a database will be used.

7. Work breakdown structure

Activities	Duration (In Days)	Description
1. Planning and Research	15	After the approval of the project idea, research on the topic is done and planning for the project is initiated.
2. Analysis	5	The next step after planning and research is analysis of the requirements.
3. Design	15	Diagrams such as wireframe, use case and ERD are prepared for the project.
4. Build a prototype	30	The ideas for the project are implemented and prototype for system is created. It is a small working model of the required system
5. Evaluation	5	After building a prototype, the system is presented for evaluation and feedbacks are collected.
6. Refining Prototype	35	After evaluation, the prototype is refined, and final system is designed.
7. Testing	20	The system is finally tested. Various tests are conducted. (e.g. Unit tests)
8. Documentation	80	With the development of the project, important notes are documented.
9. Submission	5	The project is finally submitted after the successful completion of the project.

Table 1: Work breakdown structure table

8. Milestones

- First gather / analysis the requirement and list them down Nov 28, 2019
- Complete the GUI design Dec 19, 2019
- Get restaurants details Store the collected data in the database Jan 20, 2019
- Food waste management Jan 21, 2019
- Complete the backend part Jan 31, 2019
- Finish the project with proper documentation Apr 30, 2019

9. Project Gantt chart

Task Name	Duration	Start	Finish
1. Requirements gathering and analysis	20 days	Fri 11/1/19	Thu 11/28/19
1.1. Brainstroming	5 days	Fri 11/1/19	Thu 11/7/19
1.2. Research collection	10 days	Fri 11/8/19	Thu 11/21/19
1.3. Research analysis	5 days	Fri 11/22/19	Thu 11/28/19
2. Quick Design	15 days	Fri 11/29/19	Thu 12/19/19
2.1. ERD	3 days	Fri 11/29/19	Tue 12/3/19
2.2. Wireframe	5 days	Wed 12/4/19	Tue 12/10/19
2.3. Enhancement	7 days	Wed 12/11/19	Thu 12/19/19
3. Build a Prototype	30 days	Fri 12/20/19	Thu 1/30/20
3.1. Development of user login and register	3 days	Fri 12/20/19	Tue 12/24/19
3.2. Development of home page	3 days	Thu 12/26/19	Mon 12/30/19
3.3. Development of payment gateway	6 days	Tue 12/31/19	Tue 1/7/20
3.4. Food waste management	10 days	Wed 1/8/20	Tue 1/21/20
3.5. Development of other functions and pages	8 days	Wed 1/22/20	Fri 1/31/20
4. Evaluation	5 days	Sat 2/1/20	Thu 2/6/20
5. Refining prototype	30 days	Fri 2/7/20	Thu 3/19/20
5.1. Code management	10 days	Sat 2/15/20	Thu 2/27/20
5.1. Unit testing	20 days	Fri 2/21/20	Thu 3/19/20
6. Testing	10 days	Fri 3/27/20	Thu 4/9/20
6.1. Black box testing	5 days	Fri 3/27/20	Thu 4/2/20
6.2. White box testing	5 days	Thu 4/2/20	Wed 4/8/20
7. Implement Product and Maintain	5 days	Fri 4/17/20	Thu 4/23/20
8. Deployment	5 days	Mon 4/20/20	Fri 4/24/20
9. Document	85 days	Wed 1/1/20	Tue 4/28/20
9.1. Interm report	40 days	Wed 1/1/20	Tue 2/25/20
9.2. Final Report	60 days	Wed 2/5/20	Tue 4/28/20

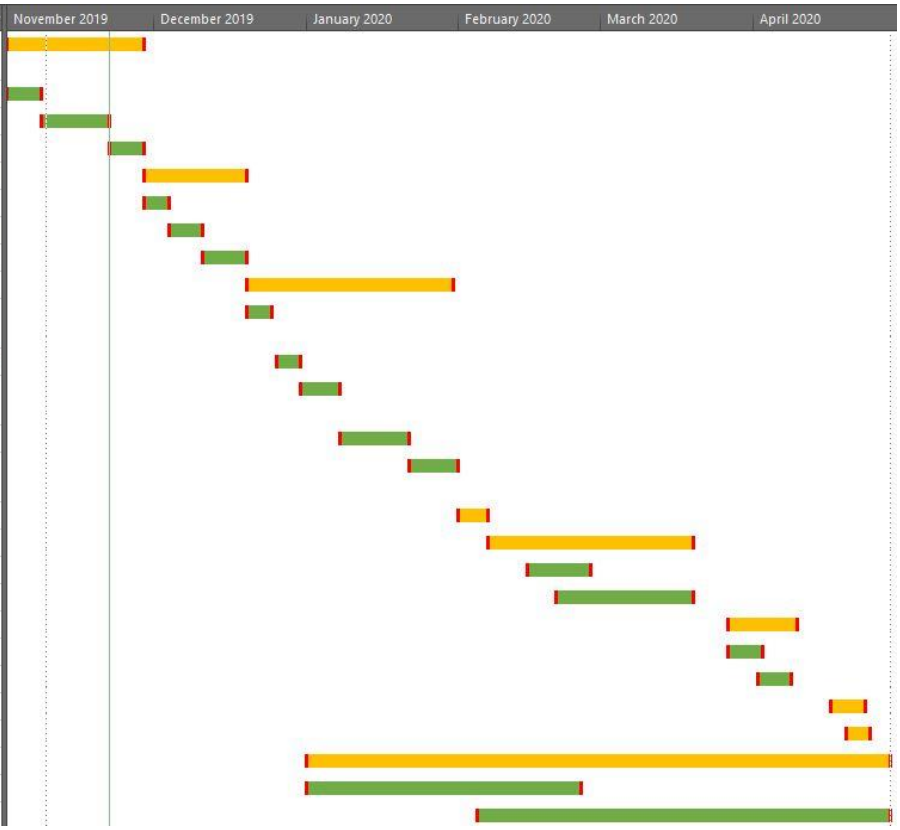

Figure 1: Gantt Chart for Food delivery application

10. Conclusion

The app will help many individual who have lack of time in their life. The people can order the food they want at any place and anywhere they want. Not only that the people can order the food, they can also see all the hotels and restaurants with in one mile radius. The User will also get the recommendation according to the trending food in their area and the offer for food waste management

Most restaurants will be to manage their peak business hours very efficiently by ordering online. People can avoid the painful experience of wasting time in a long queue thanks to online shopping. They can quickly place an order when they're stuck in traffic or on the way to pick up the kids with the option to order their meals from the mobile app. The app provide freedom to order at anytime from anywhere without pausing and calling the restaurant. The food experience has come a long way, turning it into a much more trouble-free customer experience. And if you can vouch for such an encounter, the consumers are certainly going to come along. (Restolabs, 2019)

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