



slington college
(इस्लिंग्टन कलेज)

Final Year Project

CS6PO5

**Proposal (Web Application - Appointment Booking and Queueing System)
2019-20 Autumn**

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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 in order 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.

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1. Introduction

A mobile application, commonly referred as an app, is a type of application software which is designed to run on a mobile device, particularly smartphone (techopedia, 2015). The popularity and usage of mobile technology continues to grow rapidly. People are seeking guidance from smartphones than from other persons.

Health and fitness apps are abundant in the current market. While the global obesity epidemic continues, with the record of about two billion people worldwide are overweight or obese which is about 30% of the world's population (Sifferlin, 2017). Mobile phones play a vital role in mitigating this problem since it has become a part of our life. Along with their enormous capabilities, are proficient with providing help, encouragement and motivation to those who seek a healthy lifestyle. Hence mobile phones can be used to make workout experience more appealing while offering valuable information to the user.

A quick search in the iPhone operating system(iOS) and Android, there are more than 165000 health-related apps. User interfaces are very essential for a mobile application. It is of high importance to take into consideration user interface principles when producing applications. People are often frustrated because of bad designs due to which usability issue arise. The main purpose of this project is to indicate poor designs that should be avoided and develop a highly usable fitness mobile app based on UI principles.

2. Aims and Objectives

The project is aimed to develop a fitness application which will provide a clear, usable and efficient user interface which will promote a healthy life style for the people of all ages. This android app will be able to track time, distance, calories burn, pace during a running session, and will be able to record information within its internal files.

- Get information about what the users need and what functionally is going to be useful.
- Collect various information through similar systems
- Evaluate several user interfaces through other systems based on user interface principles.
- To develop the complete system within time.
- To develop the android application.

3. Expected Outcomes and Deliverables

After the completion of the project, a user-friendly mobile app will be developed which will make the consumers easy to exercise wherever they want at any time. This mobile app will be very helpful and can be used easily and efficiently. This mobile app would primarily allow them to know the important and necessary information about the types of exercises, meal plans, their progress, etc. The features of the mobile app are listed below:

- Suggest the fitness routine according to gender
- Different types of exercises according to muscles
- Instructions for exercises according to the muscles
- Different workout programs according to need and body type
- Compare performance and progress and generate BMI (Body Mass Index)
- Planning personalized exercise routine
- Diet plan according to need and body type
- Consumer can add and upload another exercise
- Consumer can record the exercises performed each day
- Contains reminders and alarm
- Track steps, distance, time, speed and calculate calories burned
- Timer

4. Project risks, threats and contingency plans

The risks and threats of the project are:

- The app might not cover all the exercises, workout plans,
- The app may not be compatible for some of the users.
- Since this is the first time I am working on an android project, it can be difficult to implement all the features,
- The application would be better if it would be available in IOS devices,
- The resources on the internet might not be sufficient to complete the project,
- The major threat of an ecommerce site is privacy threat,
- It is a very important to manage data for management of the system. The website may crash due to heavy load of data.

The contingency plans are:

- Researching about many exercises and adding them in the database,
- Trying to complete the project as soon as possible in time,
- Researching about flutter and its different widgets, plugins and shortcuts to ensure the app has all the feature mentioned in the proposal,
- Asking the supervisors for help in case resources are unavailable in the internet,
- Convincing many gyms to use the app,
- Encryption of password and suggesting user to use strong password.
- Regularly maintain backup of data.

5. Methodology

Agile Methodology

Agile is a procedure which allows the companies design and then build the right product as per demand of the client. This methodology benefits the company to analyze and also improve the product during its development.

The agile process scrum is mostly used while managing the complex software and the product development, incremental practices and using iterative. This process allows the companies to adapt smoothly to the changing requirements. This process provides improved estimation taking less time creating them and it also let us be in a lot of control of the project schedule.

Agile process agrees for the face to face interactions of the customers, product owner, software development team which makes it a lot simple for the ideas to be circulated.

6. Resource Requirement

The required resource are as follows:

- Android Smartphone
- Visual Studio Code
- Android Studio
- Flutter
- MySQL
- Dart

7. Work Breakdown Structure

Activities	Time	Description
1. Proposal preparation	14 days	The topic for the project is chosen and proposal for the project is written for the approval of the topic.
2. Research	19 days	After the approval of the topic, further research on the topic is done,
3. Requirement Collection and Analysis	23 days	Required resources and information are then collected and analyzed. Risk and threats of the project is also examined.
4. Design	38 days	Mockups for the user interface is designed. Various diagrams (Use case, ERD etc.) are prepared.
5. Development	102 days	After the process of approval of design coding for backend and frontend is started. The tasks are discussed in every sprint of the project.
6. Testing	6 days	Various testing is done, and errors and bugs are found.
7. Maintenance	20 days	After the discovery of bugs and errors, the code to be improvised is discussed in the sprints and fixed.
8. Documentation	73 days	Along with the implementation of project, we need to prepare documentation. Details of project are noted.
9. Submission	7 days	The project is submitted after the completion of the project.

Table 1 Work Breakdown Structure

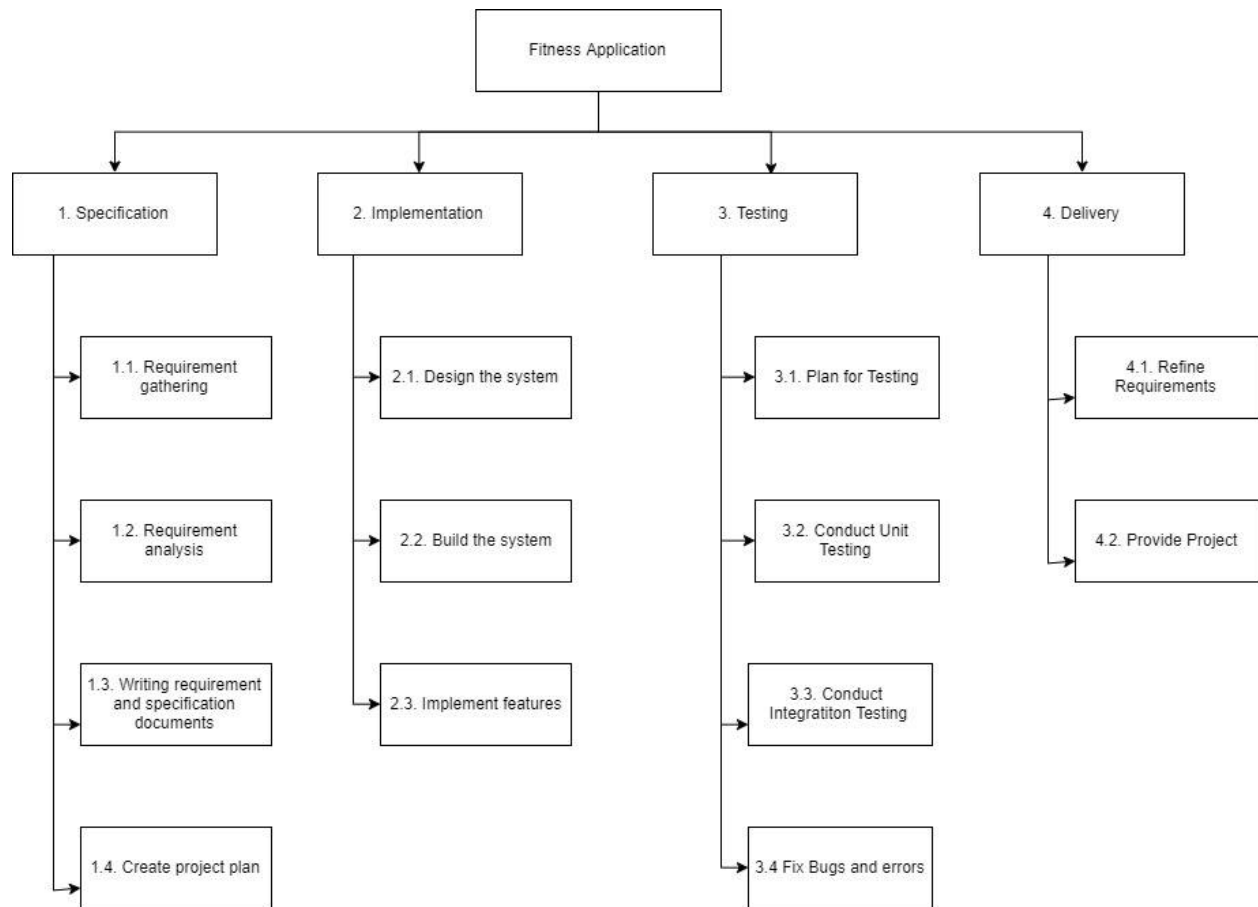


Figure 1 Figure of showing work breakdown

8. Milestones

- Prerequisite for the project will collected. (17 October, 2019)
- Develop wireframe and ERD design for the application. (23 Nov, 2019)
- Mock up for the application will be made. (5 December, 2019)
- User interface will be built. (10 December, 2019)
- Conformation Issues will be solved. (15 February, 2020)
- Data base will be integrated to the system. (5 February, 2020)
- Flutter and different API will be used at backend. (20 March, 2020)

9. Gantt Chart

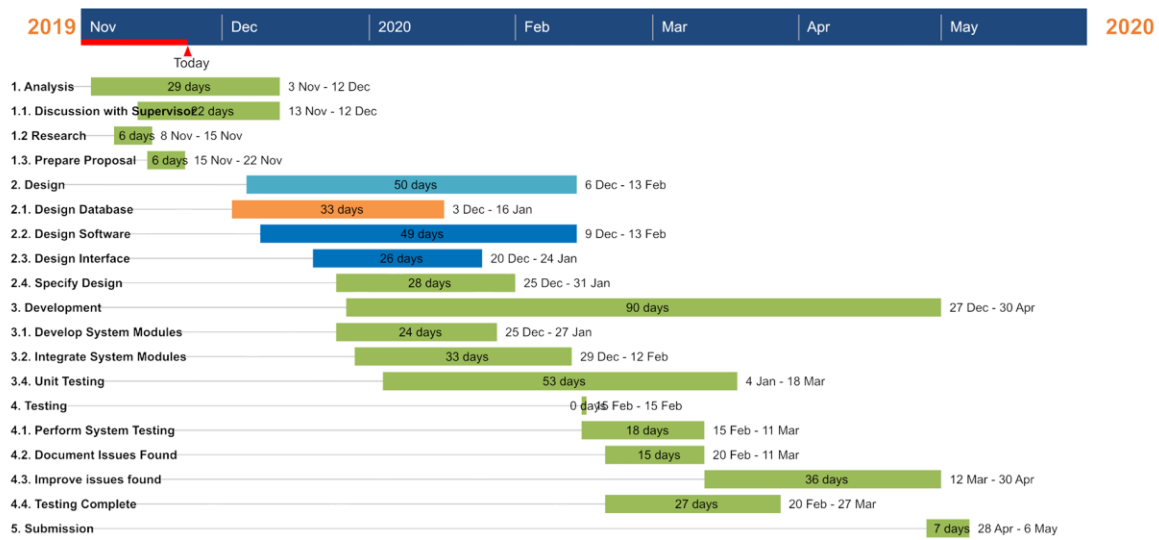


Figure 2 Gantt Chart

10. Conclusion

This project will be made on the basis of user consideration. This project will aim to develop an application for giving best fitness solution. I will base this project on UI principle. This project will help users to reduce their stress related to fitness. They will be able to get fitness steps and exercise through this mobile application.

11. Bibliography

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