Software Project Management Group Assignment

Online Product Ordering System For Restaurant

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1. Project Initiation - (17001112 - STS Muthumala)

This project is an online food ordering system for a restaurant. In this application, we can handle all the ordering and money transactions and deliverables and customer feedback.

Business Case

Nowadays, People are busy. Therefore they stuck to work. They have no time to spend on the restaurant, order food, and have them. Therefore we have a solution for that. We are building software to order and deliver the food to the client's hand anywhere who orders our product. If we think about the corona pandemic situation people are afraid to go out of the home. This is a good opportunity for the online ordering system.

Feasibility Study

We have to consider Technical, Operational, Economic, Schedule feasibilities of the project. As a technical aspect of the ordering system, We are going to build a web application and mobile application, and host on the internet (AWS or GCP). And the database should be in real-time. Therefore we are going to firebase the application. Assume the user wants to track the location on the delivery man. So, the database should be in real-time. Under operational feasibility, we have to think about the development team and software testing team. The development team should be skilled in these technologies.

Project Team and project office

This application has a mobile and web application, Therefore, the development team should be skilled with mobile and web development and database handling and a project manager and dev-ops for web hosting. The team is working together, and discussing the matters that they are facing while their development. And need a testing team.

Review

We are planning to end the main functionalities and test by testers and take reviews from the client continuously. Take feedback from the client. What are the suggestions, Are we going in the right way. The review is an essential feature of a product. We hope to get a review from the team, product manager, product owner weekly, and get the client by finishing main functionalities.

2. Project Evaluation - (17001552 - K.K.A.Sandaruwan)

The heart of the entire ordering system is the Database. Currently, the system is only available for small scale restaurants. For Large restaurants, performance considerations should be taken into account in terms of Hardware/Software capacity/Page load time, etc. Also, security vulnerabilities should be evaluated for large scale systems.

1.Strategic Assessment

It is being increasingly recognized that individual projects need to be seen as components of a program and should be evaluated and managed as such. A program, in this context, is a collection of projects that all contribute to the same overall organizational goals. Effective program management requires that there is a well-defined program goal and that all the organization's projects are selected and tuned to contribute to this goal. A project must be evaluated according to how it contributes to this program goal and its viability, timing, resourcing, and final worth can be affected by the program as a whole. It is to be expected that the value of any project is increased by the fact that it is part of a program - the whole, as they say, being greater than the sum of the parts.

2.Technical Assessment

There have been different approaches in time and the public and private sectors regarding technology assessment. However, there is a common concern about the current and future developments of technology and to improve the alignment between technological and societal developments, which includes the activities of corporations.

3.Economic Assessment

It is important to emphasize that many assumptions and policies, some implicit and some explicit, are introduced in economic evaluation by the decision-maker. The decision-making process will be influenced by the subjective judgment of the management as much as by the result of systematic analysis.

3. Project Planning - (17001714 - K.M.N.Srimal)

We are planning to develop an online product ordering system for a restaurant. We have decided to use the following technological resources to carry out our project. We hope to use server/client application, node express combination for Server, MongoDB for database, and react-native for the mobile client, angular for the web client. GitHub and git for version control

Actors and Activities

Customer - Login, Registration, Find Items, Order Product, Make The Payment and Rating

Supplier - View Customer Details, Add Products, View Products, Delete Products and View Rating

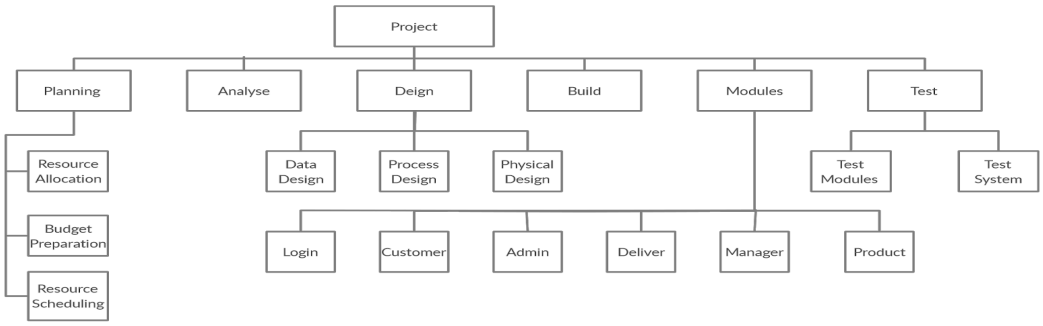
Store Manager - View Menu, Add Menu, And Delete Menu

Deliver - View Order, View Customer Details, Update Order

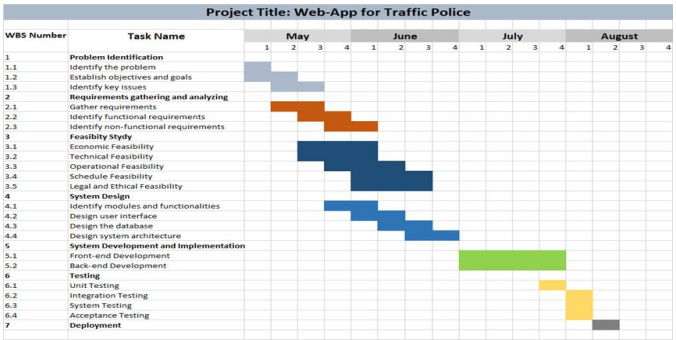
System - Send Notification and Rating

Activity Plan

After analyzing the activities then we have to create Activity-based work breakdown structure for activity planning



After creating the work breakdown structure then We have to schedule the activities using the Gantt chart



4. Risk Management - (17000122 - HGD Buddika)

1). Risk Identification

This is our project initiate checklist

NO	Checklist	YES	NO
R1	Project members are well Know the technology and best skills which project used		✔
R2	Best SDM to use that project	✔	
R3	Budget fit for this project		✔
R4	Development environments properly established		✔
R5	Activity plan fit this project	✔	
R6	Requirements are well documented		✔
R7	Special hardware required		✔
R8	Special software required	✔	

* risk which is checked no

2). Risk Estimation

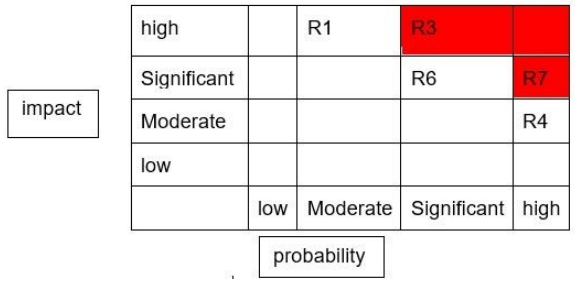
We only use qualitatively to estimate the risk.

Impact Level	Range
High	>30% time delay, cost effect
Significant	20%-30% time delay, cost effect
Moderate	10%-19% time delay, cost effect
Low	<10% time delay

Probability	Range
High	>50% chance of happening
Significant	30%-50%
Moderate	10%-29%
Low	<10%

Impact Interpretation Map:

Probability Interpretation Map:



3). Risk planning

We deal with using Risk Reduction (Treat) and risk acceptance (Tolerate) ways. We use risk acceptance (tolerate) method red blocks to represent a risk in the Impact/Probability Matrix. Others use Risk Reduction (Treat)

4). Risk monitoring

When executing the project activity, we reinitiate the risk management process. tracking identified risks, identifying and analyzing new risks, updating checklists, and evaluating risk management processes.

5. Project Monitoring & Controlling (17001897- RR Wanigasekara)

Monitoring and control processes continually track, review, adjust, and report on the project's performance. It's important to find out how a project's performing and whether it's on time, as well as implement approved changes. This ensures the project remains on track, on budget, and on time. So we should follow the project control cycle.

Then we start gathering information to compare the expected results and actual results. We gather information using the project reporting structure.UI/UX design section, a programming section, a testing section, and a quality control section as well as project managers and a steering committee. So, the steering committee makes strategic decisions is a natural assumption, and this is usually the case. Then leaders assign tasks to every team member. Team members have to do and complete their tasks and should make a report relevant to their daily work achievement at the end of the day and give it to their team leaders. After the team leader gathers all reports given by each member of his team, he should prepare his section report and hand it over to the project manager. After gathering all sections reports, the project manager should prepare another report and give it to the steering committee by including daily tasks completions. As well, we use reporting methods such as oral formal regular, oral formal and HOC, written formal regular, written formal and HOC, and oral formal and HOC. As our project is a low risk we don't hope to use daily meetings we hope to use weekly and monthly meetings. When we collect data, partial completion reporting, and visualizing progress are very important. To visualize progress we can use the Gantt chart, slip chart, and timeline chart. As it is easy to refer to charts and we can know any mismatches more quickly than with other methods.

When we monitor a project cost monitoring and Prioritizing Monitoring as well as the relevant typical change control process. When we monitor and control the project we use earned value analysis as it is the best way to measure the project progress and imagine future works in the project. After gathering the information we compare our actual work with planned work. we take remedial action to bring the project back on target when we can not satisfy ourselves. Even if we find any mismatch between our planned work and actual work we should do re-planning. After re-planning, we publish the revised plan and again we start to gather information and compare planned work with actual work and find any faults. If we have any mismatch we take remedial actions and re-plan the project. Like that we use this cycling method until we are satisfied with our project works. When we are satisfied, we complete and end the project. But that day must be before the end day of the project.