PROJECT PLAN

Conference Room Booking System

Members :
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1: Identify the lifecycle to be followed for the execution of your project and justify why you have chosen the model.(Use Degree of certainty)**(Shreyas Sai Raman - PES2UG20CS461)**

We use the software development lifecycle(SDLC). We follow the agile model to be the best model for SDLC. .
Reasons to follow agile model:
1) Superior quality product
2) Customer Satisfaction is ensured by keeping the customer in the loop and making changes according to the feedback,you deliver value to the customer and ensure that the the final product is truly according to the requirements.
3) Agile works in small sprints that focus on continuous delivery and hence reduced risks are ensured.
4) This methodology works in iterations which means that each sprint will be better than the last one and previous mistakes will not be repeated. Hence there is continuous improvement.
5) When agile is truly implemented is implemented in a project team, it empowers with unparalleled flexibility. Teams work in smaller bursts and are supplemented by constant feedback and involvement of the product owner.

Fig. Agile Model

1. **Requirements gathering:** In this phase, you must define the requirements. You should explain business opportunities and plan the time and effort needed to build the project.
2. **Design the requirements:** When you have identified the project, work with stakeholders to define requirements. You can use the user flow diagram or the high-level UML diagram to show the work of new features and show how it will apply to your existing system.
3. **Construction/ iteration:** Designers and developers start working on their project, which aims to deploy a working product. The product will undergo various stages of improvement, so it includes simple, minimal functionality.
4. **Testing:** In this phase, the Quality Assurance team examines the product's performance and looks for the bug.
5. **Deployment:** In this phase, the team issues a product for the user's work environment.
6. **Feedback:** After releasing the product, the last step is feedback. In this, the team receives feedback about the product and works through the feedback.

2: Identify the tools which you want to use throughout the lifecycle like planning tool, design tool, version control, development tool, bug tracking, testing tool.**(Shreyas Sai Raman - PES2UG20CS461)**

Planning tool,Bug tracking tool: Jira software , This is a work management, planning,bug tracking
tool for all kind of use cases.
Design tool: Draw.io
Version control:Github
Development Tools: Mysql(Backend),HTML,CSS,JAVASCRIPT

3: Determine all the deliverables and categorise them as reuse/build components and justify the same. **(Sehag A - PES2UG20CS457)**

a. Login Module(Users are managers and admins) :
It is made up of -

- Front-end Login page(re-use component,a template is being reused)
- Backend process to validate username and password(re-use component)
- Username and password to be stored in database(Build component)

b. View venues Module(Users are managers and admins):

- It consists of details about each venue.It is a build component as it is specific for this application.

c. Booking module(Users are managers):

- Front-end form to fill the details about the booking(re-use component)
- Database to store the details about the bookings(build component)

d. Check schedule(Users are managers and admins):

- Display page(build component)
- Functionality to update the schedule page from the bookings stored in database(build component)

e. Registration Module(Users are admins):

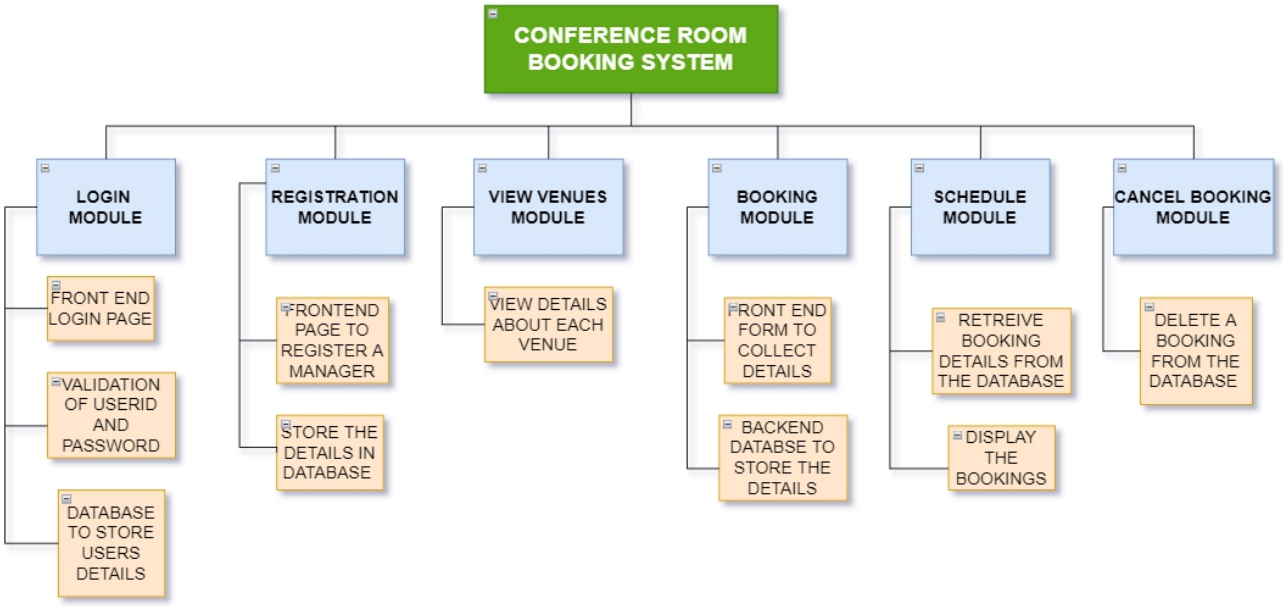
- Front-end page to register a user and store the newly created user's details in the backend database(build component)

f. Cancel Booking Module(Users are admins):

- Functionality to remove a booking on the schedule page and delete a booking from the database(Build component)

Most of the frontend pages are reusable components as the templates are easy available hence time can be saved by reusing them rather than building it.Whereas most of the functionalities are built from scratch as they are specific to this application.

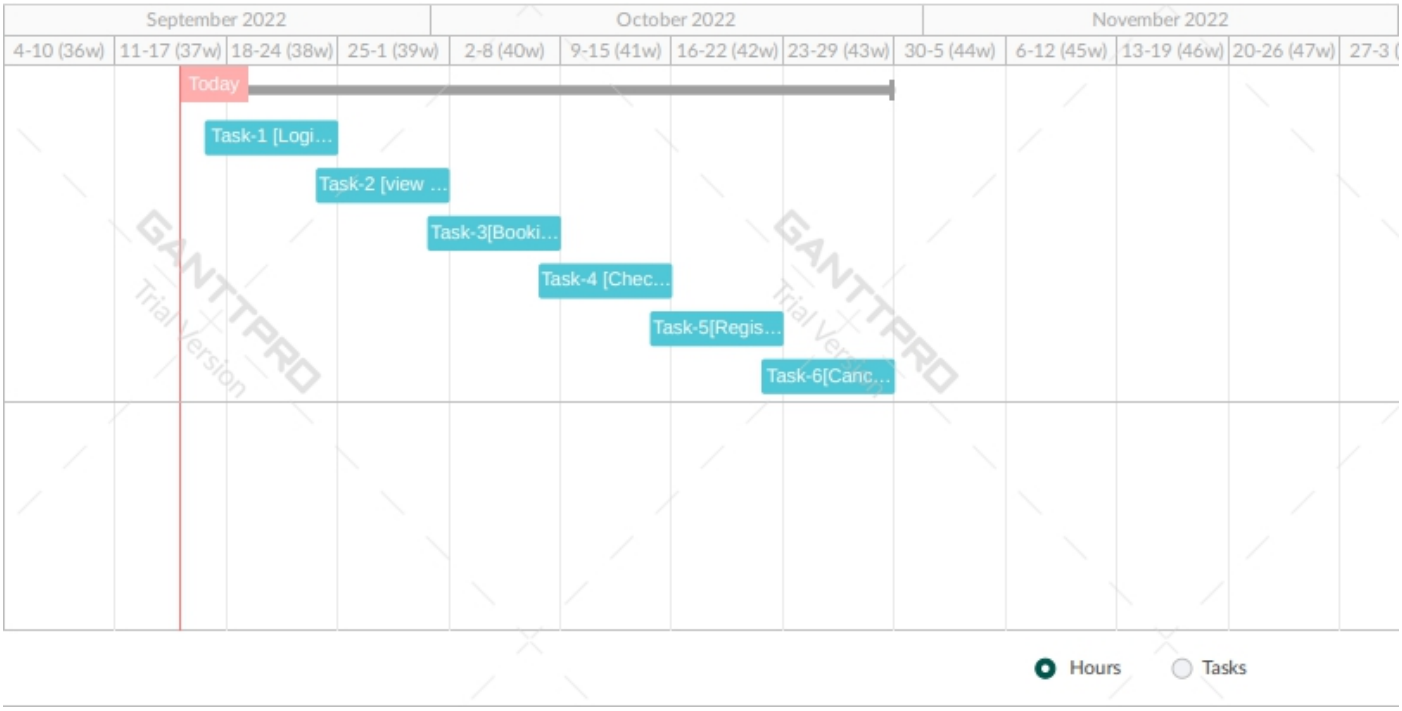
4: Create a WBS for the entire functionalities in detail**.(Abhiram - PES2UG20CS434)**



5: Do a rough estimate of effort required to accomplish each task in terms of person months.(Use BASIC COCOMO)**(Bhavik M - PES2UG20CS422)**

According to the Constructive Cost Model (COCOMO), the formula that relates Cost with Schedule is P= KLOC / E where, P=Productivity, KLOC = Kilo lines of code (the estimated size of the software product), E= Effort (the total effort required to develop the software product, expressed in person months)
Assuming the value of KLOC to be 5 i.e, there are 5 kilo lines of code. Considering this is an **Organic mode.**
Effort =E= a1 * [(KLOC) ^ a2] (PM), where a1=2.4 and a2=1.05
Effort =E= 2.4*[(5)^1.05] PM
Therefore Effort = 13.00558 PM
Productivity, P = 5 KLOC / 26.92844 PM = 0.384450 KLOC/PM = 384.450 LOC/PM
Estimation of development time,
Tdev=D==b1*[(efforts)^b2] Person Months , where b1=2.5 b2=0.38
Tdev=D=2.5*[(13.00558)]^0.38 Person Months
Tdev=D=6.626883 Person Months(PM)
Average Staff Size(SS)= E/D Persons=13.00558/6.626883=1.96254 Persons=2 persons approximately….

6: Create the Gantt Chart for scheduling using any tool.**(Bhavik M - PES2UG20CS422)**


September 2022
October 2022
November 2022
4-10 (36w)
11-17 (37w)
18-24 (38w)
25-1 (39w)
2-8 (40w)
9-15 (41w)
16-22 (42w)
23-29 (43w)
30-5 (44w)
6-12 (45w)
13-19 (46w)
20-26 (47w)
Today
Task-1 [Logi...
Task-2 [view ...
Task-3[Booki...
Task-4 [Chec...
Task-5[Regis...
Task-6[Canc...
GANTTPRO
Trial Version
Hours
Tasks