Project Plan Document

Towards Kulaabhooshanam - A Child Adoption Portal

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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.

Project Lifecycle:

For the execution of the Kulaabhooshanam project, we propose following the Agile Software Development Lifecycle (SDLC).

Justification:

We have chosen the Agile model for the following reasons:

a) Flexibility: Agile allows for flexibility and adaptability, which is crucial for a project like Kulaabhooshanam, where requirements may evolve as per government regulations, user feedback, and changing adoption laws.
b) Customer Collaboration: Agile promotes regular customer collaboration and feedback, which aligns with the objective of the project, which is to create a user-friendly adoption platform that serves the needs of both adoptive parents and adoption agencies.
c) Incremental Development: In Agile, the project is broken down into small, manageable increments or iterations. This approach will help us address the project's complexity and achieve milestones efficiently.
d) Testing and Quality Assurance: Agile emphasizes continuous testing and quality assurance, which is critical for a project dealing with sensitive data and user privacy, like Kulaabhooshanam.
e) Transparency: Agile encourages transparency and regular progress reporting, ensuring that stakeholders are well-informed about the project's status.
f) Mitigating Risks: Agile's iterative approach allows for early identification and mitigation of risks, which is essential in a project involving legal regulations, data privacy, and child welfare considerations.

2. Identify the tools which u want to use it throughout the lifecycle like planning tool, design tool, version control, development tool, bug tracking, testing tool.

Tools for Each Phase:

Planning Tool: We will use Microsoft Excel for project planning, task management, and sprint planning. This will help us create and track schedules and jobs, plan sprints, and manage project timelines effectively.

Design Tool: Figma will be employed for designing the user interface and creating wireframes. It allows for collaborative design and rapid prototyping, which is essential for user-friendly interfaces.

Version Control: Git and GitHub will be used for version control to manage and track changes in the project's source code. It ensures code integrity and facilitates collaboration among developers.

Development Tool: We will use Visual Studio Code for software development. It provides a robust environment for coding, debugging, and integration with Git for version control.

Bug Tracking: We will use Jira for bug tracking and issue management. Jira's robust issue tracking system will help in identifying and resolving software defects efficiently.

Testing Tool: Selenium will be employed for automated testing of the web application. Selenium allows for comprehensive test automation, ensuring that the application functions as expected and is free from defects.

These tools will support the various phases of the project, from planning and design to development, testing, and documentation. They will enhance collaboration, productivity, and the overall quality of the Kulaabhooshanam platform while adhering to the Agile development approach.

3) Determine all the deliverables and categorise them as reuse/build components and justify the same.

Deliverables:

Robust method for child adoption by the prospective parents.

1. **Reusable Components:**

    a) UI templates and elements – Certain parts of the application like the navbar, the forms and buttons and other such items can be used without any major changes in future projects and thus help to maintain consistency.

    b) User Authentication: This system can be used for future projects that will require user to create their account

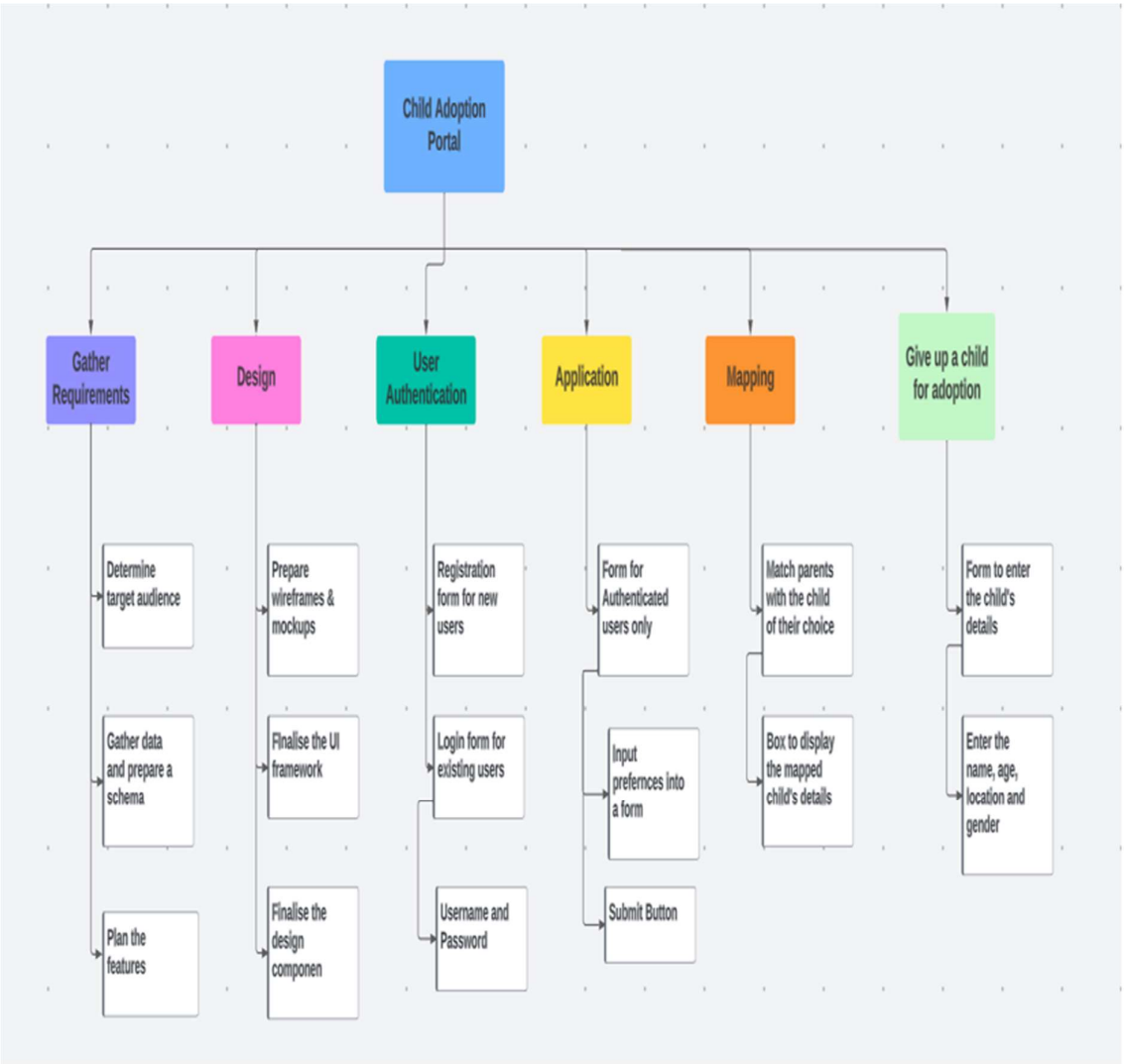
2. **Build Components:**

    a) Mapping Technique: This helps to map the prospective parents who are eligible, to the child based on their preferences.

    b) Database Schema and its Management: This helps to manage the profiles of all the children, the parents and other entities, making it very specific and tailored towards the adoption process.

    c) Chatbot: This helps solve the queries of those who access this application and caters to their needs.

4: Create a WBS for the entire functionalities in detail.



5. Do a rough estimate of effort required to accomplish each task in terms of person months.

Cost Estimation for each task in the work breakdown structure using CoCoMo - basic model adopting organic strategy.

Effort = 2.4 *(kLOC) ^ 1.05

Time = 2.5 * (Effort) ^ 0.38

a) **User Authentication - Registration**

   Lines - of - code = 200 lines = 0.2 kLOC

   Effort = 2.4 * (0.2) ^ 1.05 = 0.019 Person Months

   Time = 2.5 * (Effort) ^ 0.38 = 2.5 * (0.4428) ^ 0.38 = 1.83 Months

b) **User Authentication - Login**

   Lines - of - code = 200 = 0.2 kLOC

   Effort = 2.4 * (0.2) ^ 1.05 = 0.019 Person Months

   Time = 2.5 * (Effort) ^ 0.38 = 2.5 * (0.4428) ^ 0.38 = 1.83 Months

c) **Form for adoption**

   Lines - of - code = 500 = 0.5 kLOC

   Effort = 2.4 * (0.5) ^ 1.05 = 1.15 Person Months

   Time = 2.5 * (Effort) ^ 0.38 = 2.5 * (0.019) ^ 0.38 = 2.64 Months

d) **Give up child for adoption**

   Lines - of - code = 300 = 0.3 kLOC

   Effort = 2.4 * (0.3) ^ 1.05 = 0.677 Person Months

   Time = 2.5 * (Effort) ^ 0.38 = 2.5 * (0.019) ^ 0.38 = 2.15 Months

6. Gantt Chart to show scheduling