PROJECT PLAN DOCUMENT

(Due: 31st January 2024)

Project number	42
Project Title	Intelligent Wardrobe Management System
Document	Project Plan
Creation date	24th January 2024 (Last Updated: 20th April 2024)
Created By	Vansh Motwani was primarily responsible for this document. Shaunak Biswas and Jayesh Sutar also worked on this document as well.
Client	Organisation: Itnurtureden; Mentor: Dr Neeta Gulati

Brief problem statement

The project aims to enable efficient wardrobe organization through implementing an Intelligent Wardrobe Management System. Utilizing deep learning, artificial intelligence, and machine learning, the system aims to transform how users engage with their wardrobes. The main objective is to develop a website and a mobile app that efficiently categorizes clothing items and offers personalized outfit suggestions from the clothes in their wardrobe. Considering user preferences, real-time weather data, and contemporary fashion trends, the system strives to enhance the wardrobe management experience.

Team Members

Shaunak Biswas: Developer, UI/UX Designer, ML Engineer

Vansh Motwani: Developer, Technical Writer

Harpreet Singh: Developer, UI/UX Design, ML Engineer

Jayesh Sutar: Developer, Database Administrator

Raveesh Vyas: Developer, Technical Writer, ML Engineer

We will not delineate developer roles into distinct front-end and back-end divisions as most tasks will be executed collaboratively. Tasks like requirements engineering and prototyping will also be contributed to by the complete team.

Team Communication

- The team will meet every three days or as necessary for pivotal decision-making sessions, combining in-person meetings with communication via messaging applications for continuous coordination.
- Client meetings are currently scheduled twice a week, on Wednesdays and Saturdays, to provide comprehensive project updates. However, the frequency of these meetings may be adjusted in the future to avoid redundant reporting.
- Communication with interns working on the project will be facilitated through meetings and messaging apps like WhatsApp to discuss progress and integrate the modules they are working on.

Development Environment

Development Environment:

- **Code Editor:** Visual Studio Code
- **Version Control:** Git (GitHub for collaboration)
- **Database:** MongoDB
- **Back-end Framework:** Node.js with Express.js
- **Front-end Framework:** React for the website. For the mobile app, React Native, along with Expo for development and deployment.

Programming Language:

- **JavaScript:** Used for both backend (Node.js with Express.js) and front-end (React, React Native) development.
- **Python:** Python scripts for integrating machine learning models into the Node.js backend (using node module `child_process`

Collaboration Tools:

- **Communication:** Offline and through WhatsApp
- **Version Control Integration:** GitHub for code repository and version control
- **Documentation:** Markdown for project documentation
- **HackMD Document:** A centralized document containing important links, resources, and materials for the project. This includes:
    - Project-related URLs
    - Relevant documents and files
    - External resources
    - Important references

  Link: https://hackmd.io/WAmXTPrwQfqDkk6W2ntPLg

UI Design:

- **Design Tool:** Figma for creating the representative UI and design prototypes.

Link: https://www.figma.com/files/project/205612426/Team-project?fuid=1319744743522932374

Testing:

- **Back-end Testing:** Using tools like Postman for API testing and Jest for unit testing in Node.js (tentative).
- **Front-end Testing:** Jest and React Testing Library for unit testing React components, and Cypress for end-to-end testing (tentative).
- **Mobile App Testing:** Jest and React Native Testing Library for unit testing React Native components, and Appium for end-to-end testing (tentative).

Milestone Schedule

Milestone	**Due Date**	**Release**	**Deliverable?**
Create draft requirements	5th February	R1	No
Finalize requirements	10th February	R1	Yes
Decide on UI structure	14th February	R1	Yes
Create representative UI (using Figma)	20th February	R1	Yes
Create Basic Backend Shell	1st March	R1	Yes
Adapt UI Structure for Mobile	5th March	R1	Yes
Individual integration of ML models into the backend codebase	7th March	R1	Yes
Testing the code with 3 integrated models	13th March	R1	No
Implement UI in React Native	11th March	R1	Yes
Adjust Backend Code for Mobile Compatibility	15th March	R1	Yes
Test App on Local Devices	20th March	R1	No
Test App on Various Mobile Devices	25th March	R2	No
Create the described UI using MERN stack	28th March	R2	Yes
Create Authorization/Login System	28th March	R2	Yes
Testing the website on local machines	1st April	R2	No

Hosting the website	11th April	R2	Yes
Testing website stability on different machines	15th April	R2	No