

Project Proposal: Memosac - Digital Heirloom Vault

1. Project Statement:

Memosac aims to create a secure and user-friendly platform for storing, organizing, and sharing digital heirlooms such as photos, letters, videos, recipes, and other memorabilia. The goal is to ensure these precious memories are preserved and accessible for future generations.

It is dedicated to developing a digital platform where users can securely store, organize, and share valuable digital heirlooms. In today's digital age, preserving personal and family memories has become a complex and time-consuming process. Memosac addresses this challenge by offering a robust solution for storing various memories in the form of photos, videos, letters, recipes, and other cherished documents.

2. Approximate duration (in hours) to complete the project:

360-480 Hours [15-20 Days]

This timeline translates to approximately 45–60 days, assuming an average of 8 hours of work per day. The time allocation will be adjusted as needed based on team progress and development phases.

3. Proposed Project In charge:

Supervised By: Dr. Damandeep (Mentor)

Supervised By: Mr. Pratiyush

4. Team Members along with roll no's:

- a. Pearl, 2210990648, 9467765227 (Team Leader)
- b. Prachi Anand, 2210990660, 94991 82263
- c. Prachi Malik, 2210990661, 98784 81675

d. Guransh Singh, 2210990335, 62841 89095

5. Check Points:

a. Does the project statement result in a product? If yes, what type of product?

Yes, The Project Statement can come up as Product. Memosac is a digital platform designed to store, organize, and share digital heirlooms, making it an perfect solution to deliver as a product.

b. If it is a product, can a prototype be made, if not, what is it, which we can produce that our teachers can evaluate.

Yes, a prototype can be made for Memosac. We can create a functional prototype that demonstrates the core features of the product.

c. Does the project statement use multiple concepts to achieve the outcome? (yes/no)

Yes, the project statement uses multiple concepts to achieve the outcome.

d. Does it have enough for our team members to do sufficient amount of work? (yes / no)

Yes, the project has enough for your team members to do a sufficient amount of work.

6. Technical Nodes:

Subject / Area / Topic	Technical Nodes
Frontend Development	React.js, HTML5, CSS3, JavaScript, Responsive Design, State Management, Redux

Subject / Area / Topic	Technical Nodes
Backend Development	Node.js, Express.js, RESTful APIs, JWT Authentication, Mongoose, MongoDB
Database	MongoDB, Schema Design, Data Modeling, Indexing
Security	User Authentication (JWT, bcrypt.js), SSL/TLS
Multimedia Handling	File Upload APIs, Image/Video Compression, Streaming, File Format Support (JPEG, MP4)
Collaboration Features	Notification Systems, Sharing Permissions
Version Control	Git, GitHub, Branch Management, Pull Requests
UI/UX Design	Wireframing, Prototyping, User-Centered Design Principles
Search and Filtering	Search Algorithms, Filtering Techniques, Tagging System

7. Prerequisites:

As our Project is offers various functionality like storing, organizing and sharing digital Heirlooms in a secure manner. The Certain prerequisites required are:

Frontend:

- Proficiency in HTML, CSS & JavaScript.
- Basics of React Framework
- Understanding of Responsive and State Management

Backend:

- Basics of Node & Express JS
- Understanding of RESTful APIs Creation and Implementation

Database:

- Experience of MongoDB Database
- Familiar with Database Modeling and Schema Design
- Basics of CRUD Operations

User Authentication:

- Knowledge of User Authentication (JWT, bcrypt)
- Basics of encryption (AES, RSA) and secure data transmission (SSL/TLS)

Multimedia Handling:

- Experience with handling file uploads, media storage, and compression techniques.
- Knowledge of media formats and streaming technologies.

Version Control:

- Proficiency in Git and GitHub for version control.
- Understanding of branch management, pull requests.

8. Material that may be required to make the project and where it might be available**IDEs:**

Visual Studio Code: <https://code.visualstudio.com/>

Frontend:

Reactjs: <https://react.dev/>

Backend:

NodeJS & NPM: <https://nodejs.org/en>

Postman API: <https://www.postman.com/>

All other Essential Backend Modules: <https://www.npmjs.com/>

Database:

MongoDB Atlas: <https://www.mongodb.com/products/platform/atlas-database>

MongoDB Compass: <https://www.mongodb.com/products/tools/compass>

9. What could the total cost of the project?

Estimated Cost of the Project: ₹50,000 - 60,000

10. Resources available to us:

Human Resource: A development team proficient in frontend and backend development.

Tools: GitHub, Git, MongoDB, NodeJS, VS Code, React Libraries, NPM Packages

Education Materials: Online resources for further learning and development