**Project Proposal**

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| ADP Program | | | Computer Science | | | | |
| Project ID  *(for office use)* | | |  | | | | |
| Title of Project | | | **LiteVault** | | | | |
| Type of project | | | [ ] Traditional [✓ ] Industrial [ ] Continuing | | | | |
| Nature of project | | | [✓ ] **D**evelopment [ ] **R**esearch [ ] **S**urvey | | | | |
| Area of specialization/ Field | | | Web Application | | | | |
| **Project Group Members** | | | | | | | |
| Sr.# | Reg. # | Student Name | | CGPA | Email ID | Phone # | Signature |
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| (iii) |  |  | |  |  |  |  |
| (iv) |  |  | |  |  |  |  |
| (v) |  |  | |  |  |  |  |
| **Declaration:** Project group members have cleared all prerequisites courses For project as per their degree requirements.  **Supervisor Name and Signatures: Principal:**  HAFIZ MUHAMMAD USMAN PROF. IZHAR AKRAM  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | | | |

# **1. Introduction**

**LiteVault** is a streamlined, offline-first platform designed to securely manage personal or small-scale data without the need for backend infrastructure. Built on modern browser technologies like local storage, LiteVault delivers an efficient and user-friendly experience. It emphasizes simplicity, privacy, and affordability while offering advanced customization through themes, including light and dark modes. With robust manual backup reminders, LiteVault caters to developers and end-users seeking a secure, cost-effective data management solution.

# **2. Objective**

To develop an offline, user-centric platform for secure, structured data management that operates without backend dependencies. LiteVault aims to deliver an enhanced user experience with customization options, seamless backup features, and privacy-first architecture.

# **3. Project Scope**

The project focuses on developing a web-based software that emphasizes simplicity, cost-effectiveness, and user autonomy by eliminating the need for complex database integration. It features a form-based interface for managing structured data, complemented by manual import and export capabilities using encrypted JSON OR CSV files etc. To enhance usability, the platform includes customizable theming options such as light/dark modes and personalized interfaces, along with backup reminders to encourage regular exporting of encrypted data. Basic offline analytics and secure local authentication using PINs or passwords further ensure a seamless and secure user experience.

By operating entirely within the browser environment, the platform eliminates reliance on server-side databases, significantly reducing costs and complexity. While it excludes advanced data visualization and drag-and-drop functionality, the platform offers a robust offline-first solution that prioritizes user privacy and minimizes operational overhead, making it an efficient tool for individuals or small-scale use cases.

# **4. Summary**

**LiteVault** is a cutting-edge, lightweight data management solution designed to bridge the gap between developers and non-technical users. For developers, it provides a robust, pre-built foundation for rapid prototyping and small-scale applications. For end-users, it ensures privacy, simplicity, and intuitive usability. By eliminating backend dependencies, LiteVault reduces operational costs while prioritizing data sovereignty. The inclusion of theming options enhances personalization, while backup reminders ensure data security.

Poised to make a significant impact by 2026, LiteVault aims to empower individuals and developers alike, particularly in low-connectivity or resource-constrained environments. It stands as a testament to privacy-focused innovation, promoting sustainable and secure data management solutions.