# Project Design Phase-II
# Technology Stack (Architecture & Stack)

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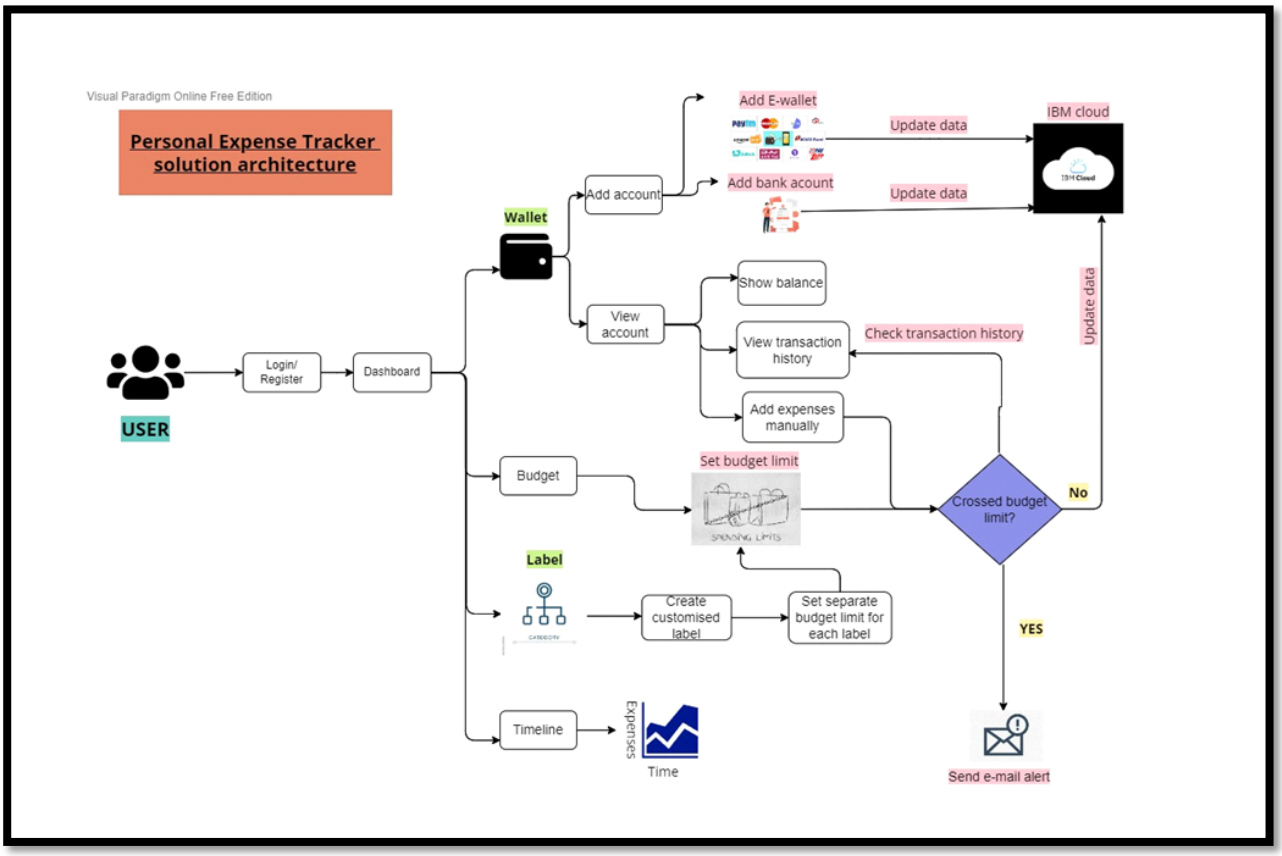
| Date | 16 October 2022 |
| Team ID | PNT2022TMID13146 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

## Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2




## Table 1 : Components & Technologies:

| S No | Component | Description | Technology |
|---|---|---|---|
| 1. | User Interface | The user can interact with the application with the use of a Chatbot. | HTML, CSS, JavaScript / React Js etc. |
| 2. | Application Logic-1 | This application has a sign-in/sign-up feature that allows users to access the main dashboard after signing up. | Python/Node JS |

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|---|---|---|---|
| 3. | Application Logic-2 | The dashboard has fields for saving money, adding expenses, and adding revenue. | IBM Watson STT service |
| 4. | Application Logic-3 | The user will receive notifications if the expense cap is exceeded and also get an expense report in form of a graph | IBM Watson Assistant |
| 5. | Database | The MySQL database contains income and expense information. | MySQL, NoSQL, etc. |
| 6. | Cloud Database | The user data are saved in a secure manner while using a cloud-based database service. | IBM DB2, etc |
| 7. | File Storage | The user's financial data is stored on IBM Block Storage. | IBM Block Storage or Other Storage Service or Local Filesystem |
| 8. | External API-1 | It makes internal resources accessible to users or apps from the outside world. | IBM Weather API, etc. |

## Table 2: Application Characteristics:

| S No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Open-Source Frameworks | Flask Framework in Python is used to implement this Application. | Python-Flask |
| 2. | Security Implementations | The user's financial information is extremely secure. IBM cloud's Container Registry can be used to accomplish this. | Container Registry, Kubernetes Cluster |
| 3. | Scalable Architecture | This application 'Expense Tracker' has lifetime access. When a user's income is high, this product will be in more demand. | Container Registry, Kubernetes Cluster |
| 4. | Availability | The user will have access to this application at any time. | container Registry, Kubernetes Cluster |
| 5. | Performance | The performance will be high because there will be no network traffics in the application. | Kubernetes Cluster |