Project Design Phase-II Technology Architecture

| Date | 19 October2022 |
|---------------|--------------------------------------|
| Team ID | PNT2022TMID31273 |
| Project Name | Personal Expense Tracker Application |
| Maximum Marks | 4 Marks |

TEAM LEADER: SATHESH M

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Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2

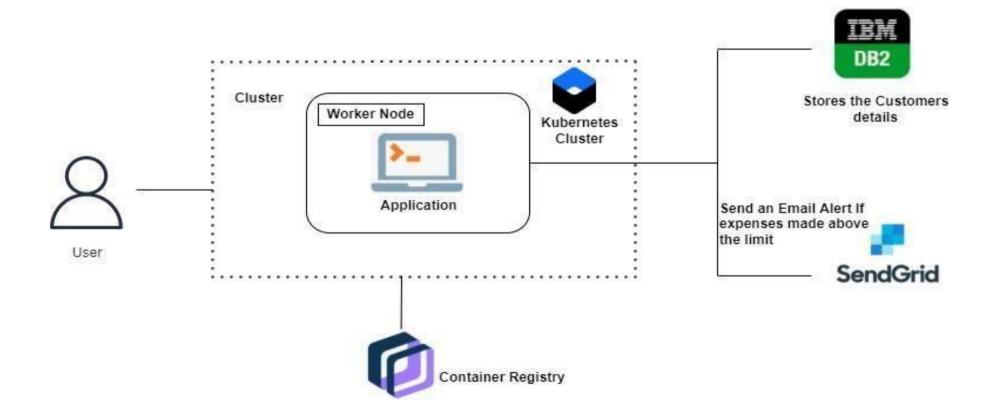


Table-1: Components & Technologies:

| S.No. | Component | Description | Technology |
|-------|---------------------|---|--|
| 1. | User Interface | The user can Interact with the application with use of Chatbot | HTML, CSS, JavaScript / Angular Js / React Js etc. |
| 2. | Application Logic-1 | The application contains the sign in/sign up where the user will login into the main dashboard | Java / Python |
| 3. | Application Logic-2 | Dashboard contains the fields like Add income, Add Expenses, Save Money | IBM Watson STT service |
| 4. | Application Logic-3 | The user will get the expense report in the graph form and also get alerts if the expense limit exceeds | IBM Watson Assistant, SendGrid |
| 5. | Database | The Income and Expense data are stored in the MySQL database | MySQL, NoSQL, etc. |
| 6. | Cloud Database | With use of Database Service on Cloud, the User data are stored in a well secured Manner | IBM DB2, IBM Cloud and etc. |
| 7. | File Storage | IBM Block Storage used to store the Financial data of the user | IBM Block Storage or Other Storage Service or Local Filesystem |

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 | This Application Provides high security to the user Financial data. It can be done by using the Container Registry in IBM cloud | Container Registry, Kubernetes Cluster |
| 3. | Scalable Architecture | Expense Tracker is a life time access supplication. It's demand will increase when the user's income are high | Container Registry, Kubernetes Cluster |
| 4. | Availability | This application will be available to the user at any part of time | Container Registry, Kubernetes Cluster |
| 5. | Performance | The performance will be high because there will be no network traffics in the application | Kubernetes Cluster |

REFERENCE:

[1] D. GRAZIANO, Gartner: Apple leads smartphone sales to new heights. BGR Media, http://bgr.com/2012/02/15/gartner-apple-leads-smartphone-sales-to-new-heights/, accessed October 2012, February 2012.

[2] M. BROWNLOW, Smartphone statistics and market share. Email-Marketing-Reports, http://www.email-marketing-reports.com/wireless-mobile/smartphone-statistics.htm, accessed October 2012, October 2012.

[3] THE WASHINGTON POST, iPhone 5 sales above 5 million, Apple says, surpassing iPhone 4S. The Washington Post, http://www.washingtonpost.com/business/technology/iphone-5-sales-above-5- million-apple-says-surpassing-iphone-4s/2012/09/24/8b23322e-0648-11e2-afffd6c7f20a83bf_story.html, accessed September 2012, September 2012.