

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

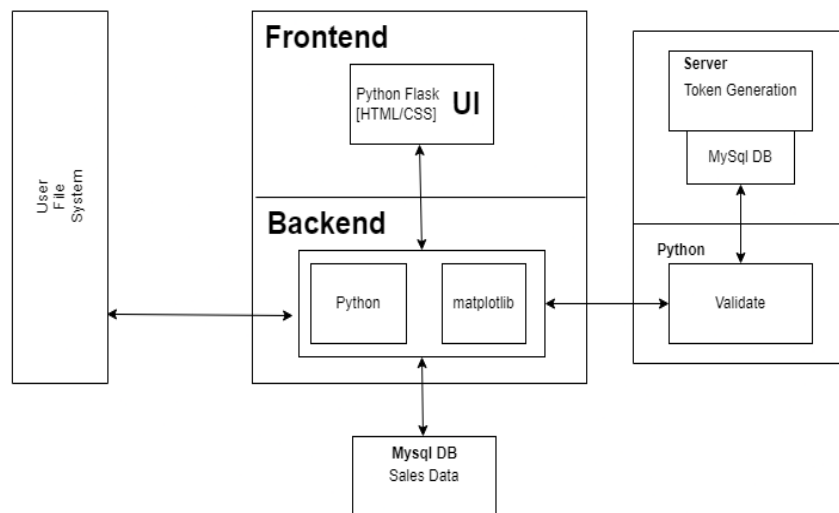
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|---------------|---------------------------------------|
| Date | 12 October 2022 |
| Team ID | PNT2022TMID37308 |
| Project Name | Project - Global Sales Data Analytics |
| Maximum Marks | 4 Marks |

Technical Architecture:

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

Example: Order processing during pandemics for offline mode

Reference: <https://developer.ibm.com/patterns/ai-powered-backend-system-for-order-processing-during-pandemics/>



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1: Components & Technologies:

| S.No | Component | Description | Technology |
|------|------------------------|---|-------------------|
| 1. | User Interface | Python flask [HTML / CSS] is used for developing the User Interface for the Analysis. | Python flask |
| 2. | Application Logic-1 | Get the user input from user, and clean data | Python |
| 3. | Application Logic-2 | Validate the cleaned data for its correctness | Python |
| 4. | Application Logic-3 | Prepare the data in correct format for analysis | Python |
| 5. | Database | Store token generated for activation Store manual insights from users | MySQL |
| 6. | Dependency | Generate graphs using matplotlib to visualize the output | Matplotlib |
| 7. | File Storage | Store necessary files on the client's pc. | Local file System |
| 8. | Activation of software | Generate Tokens using UUID and validate the activation of the software | UUID |

Table-2: Application Characteristics:

| S.No | Characteristics | Description | Technology |
|------|--------------------------|---|---|
| 1. | Open-Source Frameworks | Python flask for building user interface. Matplotlib is used to generate visualization. MySQL is used has primary database. | Python flask ,Matplotlib, MySQL Community edition. |
| 2. | Security Implementations | UUID – one time activation | UUID |
| 3. | Scalable Architecture | The Solution Depends on client devices so it is by default scalable. | nil |
| 4. | Availability | This Service is available as long as the activated device functions. The service doesn't extend to multiple devices. | nil |
| 5. | Performance | Efficient code with better use of DSA. | nil |