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

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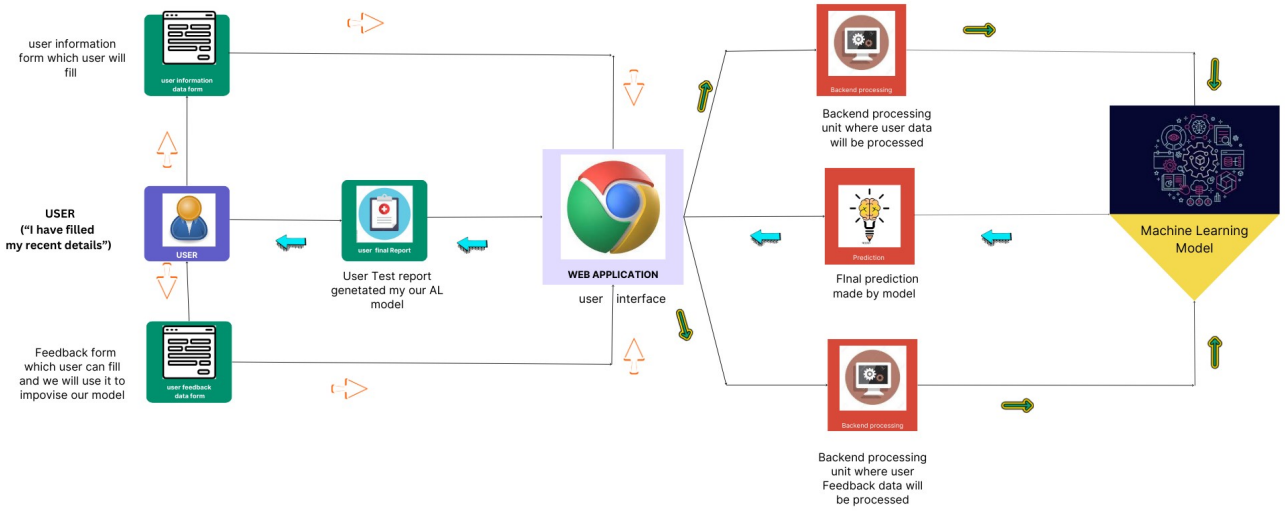
|---|---|
| Date | 27th October 2023 |
| Team ID | TEAM-591549 |
| Project Name | Project - AudiometricAI: Transforming Hearing Test Diagnosis Through Machine Learning |
| Maximum Marks | 4 Marks |

**Technical Architecture:**



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 | Web App | Flask/Streamlit |
| 2. | Application Logic-1 | The data input provided by the user is preprocessed and given to the model as input . | Python |
| 3. | Application Logic-2 | The output received from the model is processed and the test report is made and returned to the user. | Python/ChatGPT |
| 4. | External API-1 | Converting text to speech and vise-versa | Text-to-speech api |
| 5. | External API-2 | For supporting multiple languages | Translation API |
| 6. | Machine Learning Model | Hearing test result prediction. | ML models like SVM, logistic regression etc. |
| 7. | Deployment | Application hosting. | Google Cloud/localhost |

**Table-2: Application Characteristics:**

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 1. | Security Implementations | List all the security / access controls implemented, use of firewalls etc. | Inbuilt in Google Cloud |

| S.No | Characteristics | Description | Technology |
|---|---|---|---|
| 2. | Performance | Design consideration for the performance of the application. | Ability of the model to generate proper reports. |