**Project Design Phase-II**

**Technology Stack (Architecture & Stack)**

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| Date | 25 October 2022 |
| Team ID | PNT2022TMID34104 |
| Project Name | Project - Classifications of Arrhythmia by usind deep learning with 2-D ECG spectral image representation. |
| Maximum Marks | 4 Marks |



**Table-1 : Components & Technologies:**

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| --- | --- | --- | --- |
|  | **Component** | **Description** | **Technology** |
|  | User Interface | How user interacts with application. | Mobile ui and web. |
|  | Modal analysis | It uploads the image. | data gov,UCI. |
|  | Data collection. | collecting and creating the data set. | phython |
|  | Data preprocessing 1 | Import the IDG library. | Phython. |
|  | Data preprocessing 2 | configure IDG classes. | MySQL, NoSQL, etc. |
|  | File storage. | File storage requirements like memory and storage devices. | IBM Block Storage or Other Storage Service or Local Filesystem |
|  | Model building 1 | Import the model building library. | Phython. |
|  | Model building 2 | Add CNN layers | Phython. |
|  | Application building | Easier to user. | HTML. |
|  | Machine Learning Model | Purpose of Machine Learning Model is used in different conditions. | CSS,HTML. |
|  | Train the model | CNN developement using phython. | IBM ,Phython. |

**Table-2: Application Characteristics:**

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| --- | --- | --- | --- |
|  | **Characteristics** | **Description** | **Technology** |
|  | Open-Source Frameworks | A software for which the original source code is made freely available and may be redistributed and modified according to the requirement of the user. | Phython. |
|  | Security Implementations | By placing a firewall to protect from attackers.management,operational,physical controls are the security implimentations. | Encryptionsand decryptions, IAM Controls, OWASP |
|  | Scalable Architecture | Scalability of architecture depends on customers. It the maximum customer avilable also it will function well. | 3- tier and micro system service. |
|  | Availability | Availability of the system is based on the diagnostic centre and the servers function with networks. | Load and unbalanced load server. |
|  | Performance | Increasing the performance reduces time and more effective output results. The main performance is good at memory devices. | Chache memory. |