

Project Design Phase-II

Technology Architecture

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID50020 |
| Project Name | Early Detection Of Chronic Kidney Disease Using Machine Learning. |
| Maximum Marks | 4 Marks |

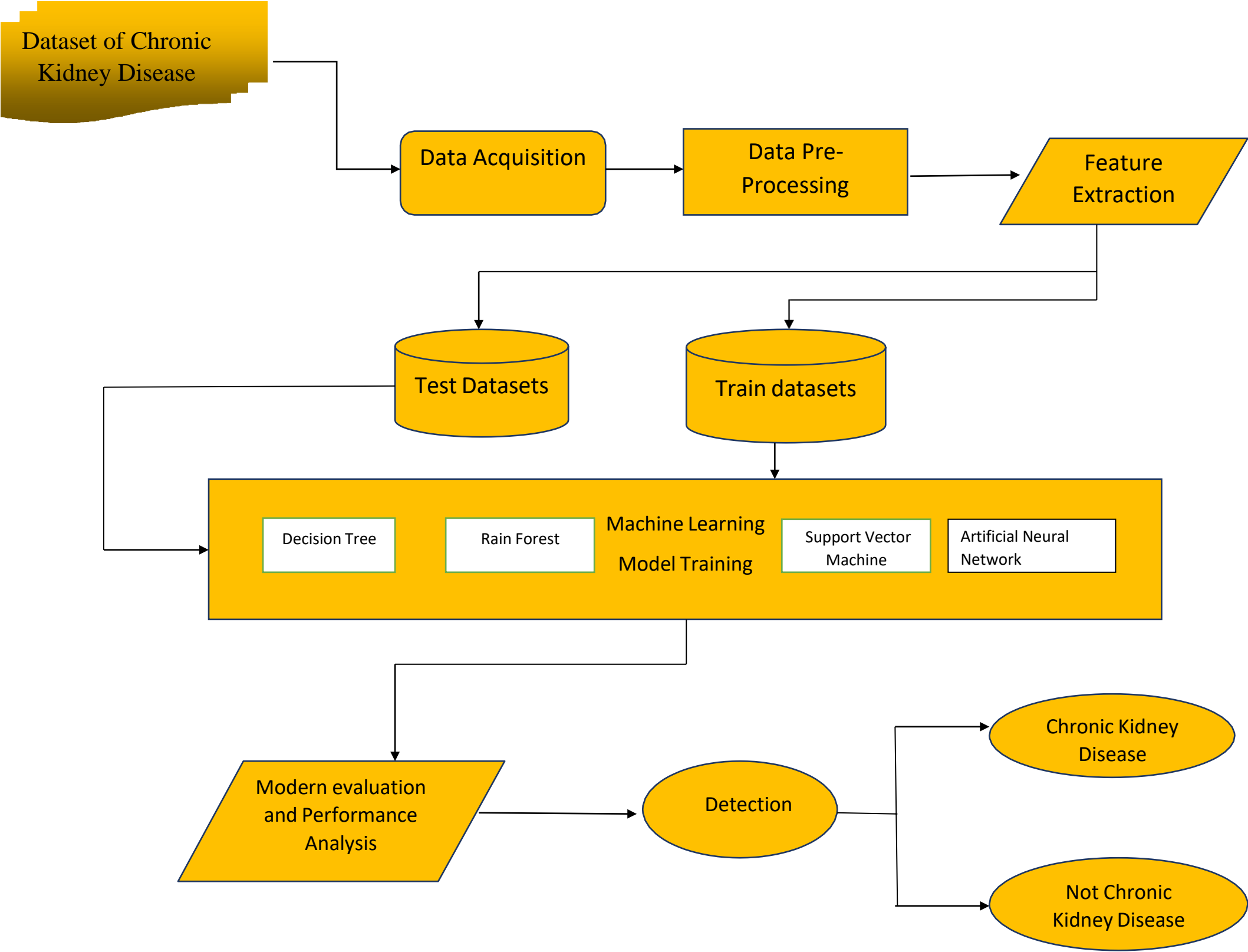


Table-1: Components & Technologies:

| Sl. NO | COMPONENTS | DESCRIPTION | TECHNOLOGY |
|--------|-----------------------------|--|---|
| 1 | User Registration | 1. Registration through Form 2. Registration through Gmail 3. Registration through LinkedIn. | HTML, CSS and Python flask. |
| 2 | User Confirmation | 1. Confirmation via Email 2. Confirmation via OTP | HTML, CSS, Python flask. |
| 3 | Data Entry | 1. Collect The data from the user 2. Fill the Form | HTML, CSS, My Sql, Python flask Backend Python. |
| 4 | Analysing the Data | 1. Analyse the data 2. Getting their results | Machine Learning Models. |
| 5 | Machine Learning Algorithms | 1. Decision Tree 2. Rainforest 3. Support Vector Machine 4. Artificial Neural Network | Based on Machine Learning Concepts. |
| 6 | Phases | 1. Testing Phase 2. Training Phase | Machine Learning and Deep learning concepts. |

Table-2: Application & Characteristics:

| SL.NO | Characteristics | Description | Technology |
|-------|-----------------|---|---|
| 1 | Usability | 1. Preventing loss of kidney disease. 2. Delaying or avoiding progression to kidney failure. | Cloud(Open Source Platform). |
| 2 | Security | 1. Encrypt your data. 2. Focus the hosting service measure 3. Avoid security misconfigurations. | Encryption and Authentication. |
| 3 | Reliability | Result should be 99.99% accurate. | Web Development. |
| 4 | Performance | Compare the data with symptoms to give results. | Machine Learning and Deep Learning Neural Networks. |

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|---|--------------|--|---------------------------|
| 5 | Availability | It access at any time. | Machine Learning. |
| 6 | Scalability | 1. Memory utilization. 2. CPU usage. 3. Network input/output. 4. Disk input/output. | Performance Optimization. |