**Project Design Phase-II Data Flow Diagram & User Stories**

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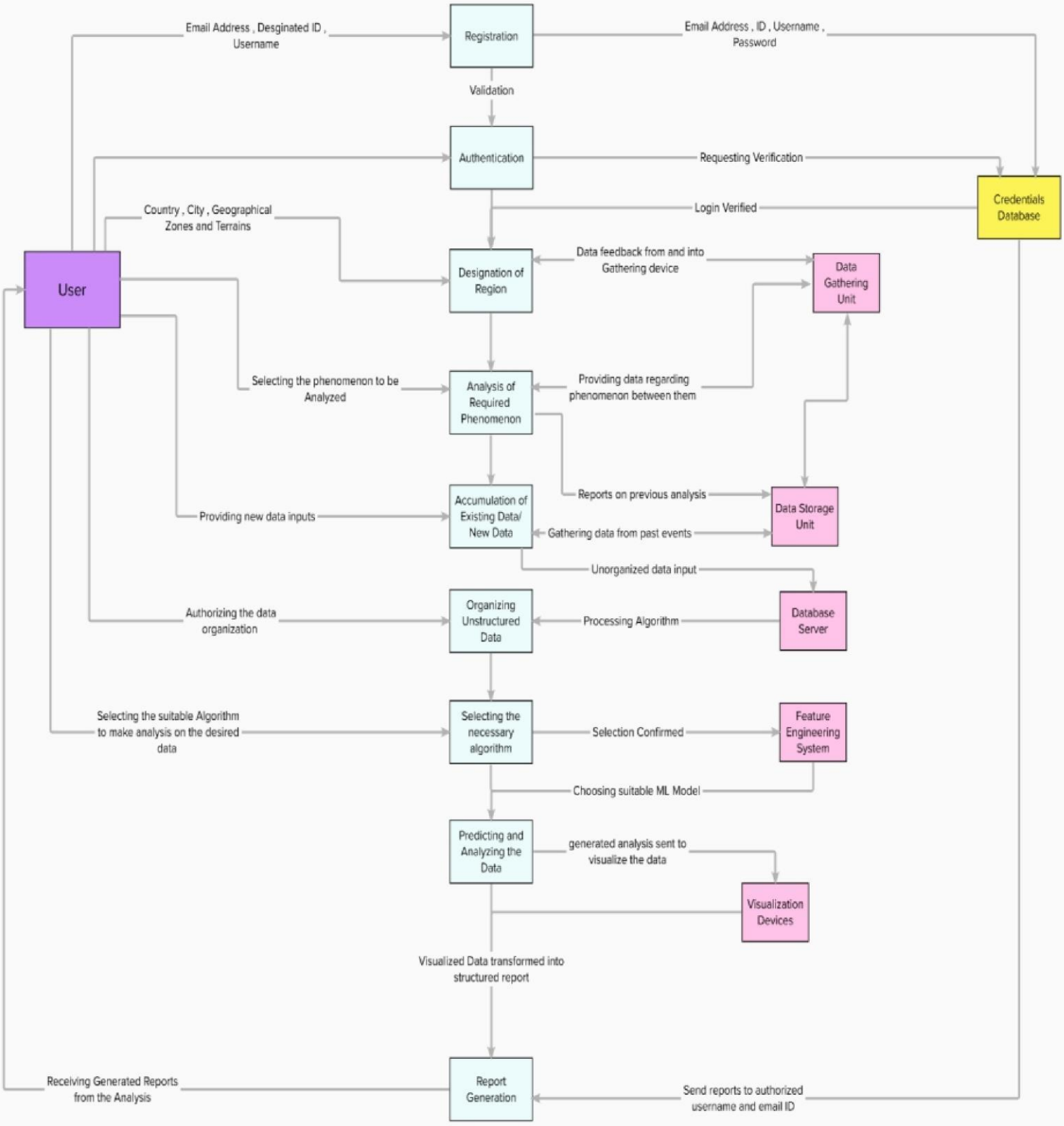
| **Date** | **14 October 2022** |
| **Team ID** | **PNT2022TMID36292** |
| **Project Name** | **Natural Disaster Intensity Analysis and Classification Using Artificial Intelligence** |
| **Maximum Marks** | **4 Marks** |

**Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.


Email Address , Desginated ID , Username
Registration
Email Address , ID , Username , Password
Validation
Authentication
Requesting Verification
Credentials Database
Login Verified
Country , City , Geographical Zones and Terrains
User
Designation of Region
Data feedback from and into Gathering device
Data Gathering Unit
Selecting the phenomenon to be Analyzed
Analysis of Required Phenomenon
Providing data regarding phenomenon between them
Reports on previous analysis
Data Storage Unit
Providing new data inputs
Accumulation of Existing Data/ New Data
Gathering data from past events
Unorganized data input
Authorizing the data organization
Organizing Unstructured Data
Processing Algorithm
Database Server
Selecting the suitable Algorithm to make analysis on the desired data
Selecting the necessary algorithm
Selection Confirmed
Feature Engineering System
Choosing suitable ML Model
Predicting and Analyzing the Data
generated analysis sent to visualize the data
Visualization Devices
Visualized Data transformed into structured report
Receiving Generated Reports from the Analysis
Report Generation
Send reports to authorized username and email ID

**User Stories :**

| User Type | Functional Requirement (Epic) | User Story Number (USN) | User Story / Task | Acceptance criteria | Priority | Release |
|---|---|---|---|---|---|---|
| End user (Customer) | Registration | USN - 1 | As a user, I am able to register with the product using my valid email address | I should be able to register with my account credentials | High | Sprint - 1 |
| End User (Customer) | Authentication | USN - 2 | As a user, I am able to login into the system with my credentials | It should ensure smooth login capabilities without delay | High | Sprint - 1 |
| End User (Customer) | Designation of Region | USN - 3 | I can select the region of interest to be monitored and analyzed | I must be able to choose certain specific places without error | High | Sprint - 1 |
| End User (Customer) | Analysis of Required Phenomenon | USN - 4 | I am able to monitor certain factors that influence the actions of the phenomenon | It should consider and monitor most of the factors involved in the action | High | Sprint - 2 |
| End User (Customer) | Accumulation of required Data | USN - 5 | I am able to gather data regarding past events and a detailed report on past analysis | It should allow the storage of data of past events for certain extent | Medium | Sprint - 2 |
| End User (Customer) | Organizing Unstructured data | USN - 6 | I am able to organize and restructure the raw data into refined data | It should ensure easy and efficient processing methods | Low | Sprint - 3 |

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| End User (Customer) | Algorithm selection | USN - 7 | I am able to choose the required algorithm for a specific analysis | It must provide various options for the algorithm to be used | High | Sprint - 2 |
| End User (Customer) | Prediction and analysis of data | USN - 8 | I am able to easily predict and visualize the data | It should allow easy to use prediction and visualization techniques | High | Sprint - 3 |
| End User (Customer) | Report generation | USN - 9 | I am able to generate a clear and detailed report on the analysis | Report generation must be fast and efficient and should not be complex | Medium | Sprint - 4 |