**Role and Key Responsibilities**

**Member 1- Naveena (IT24102231)**

**Data Loading & Missing Value Handling**

* Initial data inspection
* Missing value analysis
* Data imputation
* Foundation for subsequent steps

**Member 2- Minel (IT24102219)**

**Outlier Detection & Removal**

* Identifying outliers using IQR method
* Analyzing outlier impact
* Visualizing distributions before/after treatment

**Member 3- Disen(IT24102214)**

**Categorical Encoding**

* Encoding categorical variables
* Onehot encoding for nominal features
* Binary encoding for Yes/No features

**Member 4- MInula(IT24102269)**

**Feature Engineering**

* Creating new features (TempDiff, HumidityAvg, etc.)
* Temporal feature extraction
* Analyzing new feature correlations

**Member 5- Hasaranga(IT24102315)**

**Feature Scaling**

* Standardizing numerical features
* Comparing distributions pre/post scaling
* Ensuring ML algorithm compatibility

**Member 6- Kavishka(IT24102299)**

**Dataset Balancing**

* Addressing class imbalance with SMOTE
* Creating balanced training set
* Preserving test set for evaluation