Project Design Phase-I

Solution Architecture

Date	26 September 2022
Team ID	PNT2022TMID15570
Project Name	Developing a Flight Delay Prediction Model using Machine Learning
Maximum Marks	4 Marks

Solution Architecture – Workflow

USER VIEW

1. Client enters flight subtleties in the UI

2. Entered input is shipped off the classifier model deployed through IBM Watson.

3. The model predicts the assessed takeoff time/arrival delay and sends it to the UI.

4. The predicted value is then displayed in the UI to the client.

MODEL VIEW

1. The dataset is preprocessed for taking care of missing/categorical values.

2. Spatial and different features are removed.

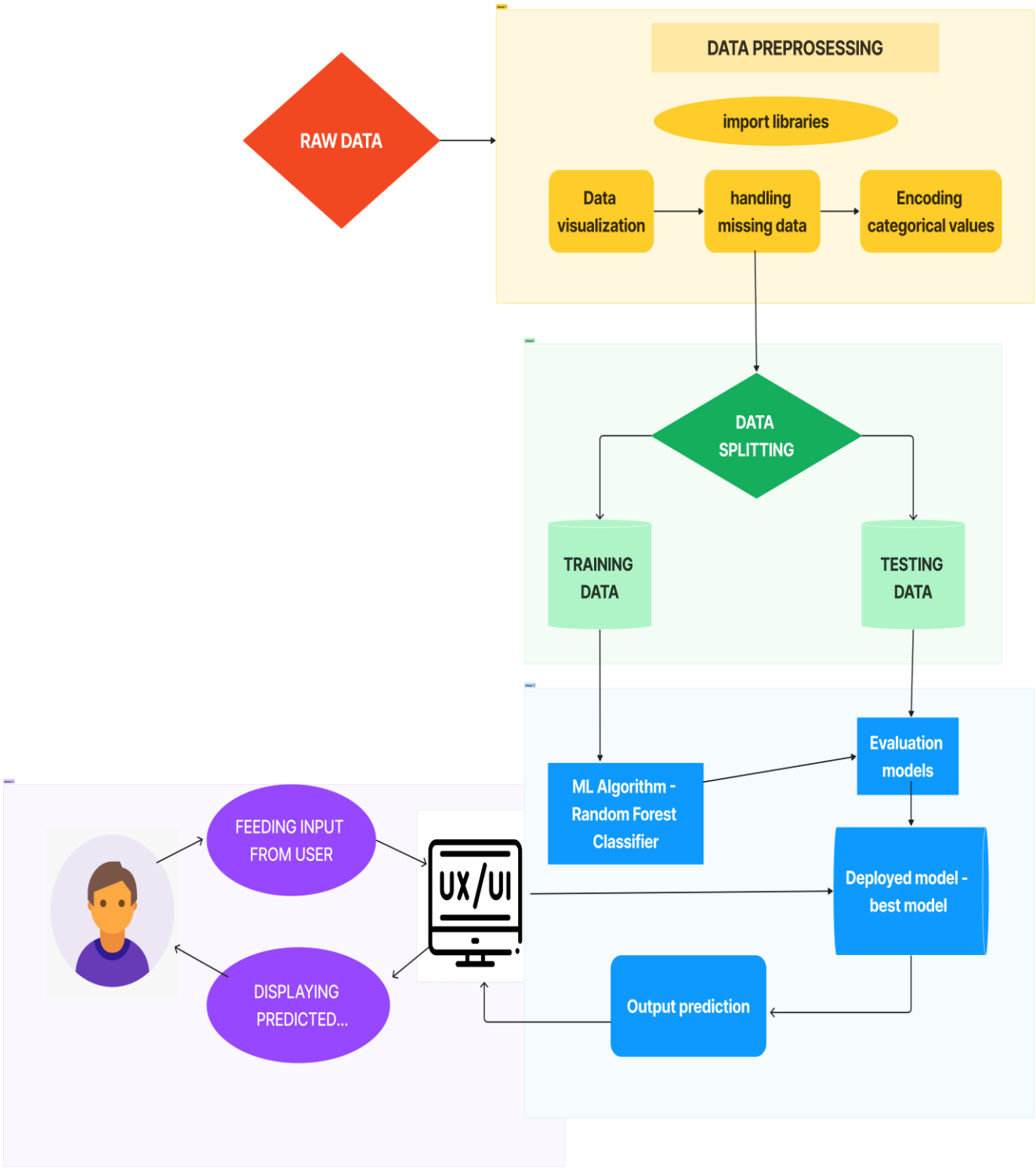
3. The features are parted into training and test set.

4. A Random Forest classifier is built and is trained with the training data.

5. The model is assessed utilizing the testing data

6. The trained model is deployed in IBM Watson.

Solution Architecture Diagram:


RAW DATA
DATA PREPROSESSING
import libraries
Data visualization
handling missing data
Encoding categorical values
DATA SPLITTING
TRAINING DATA
TESTING DATA
ML Algorithm - Random Forest Classifier
Evaluation models
Deployed model - best model
Output prediction
FEEDING INPUT FROM USER
DISPLAYING PREDICTED...
UX/UI