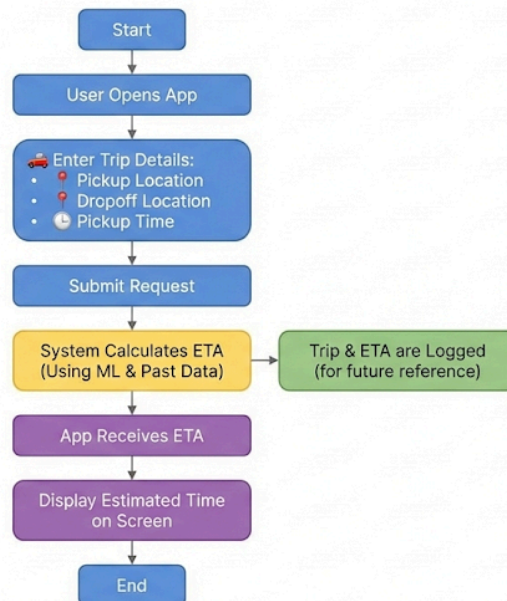


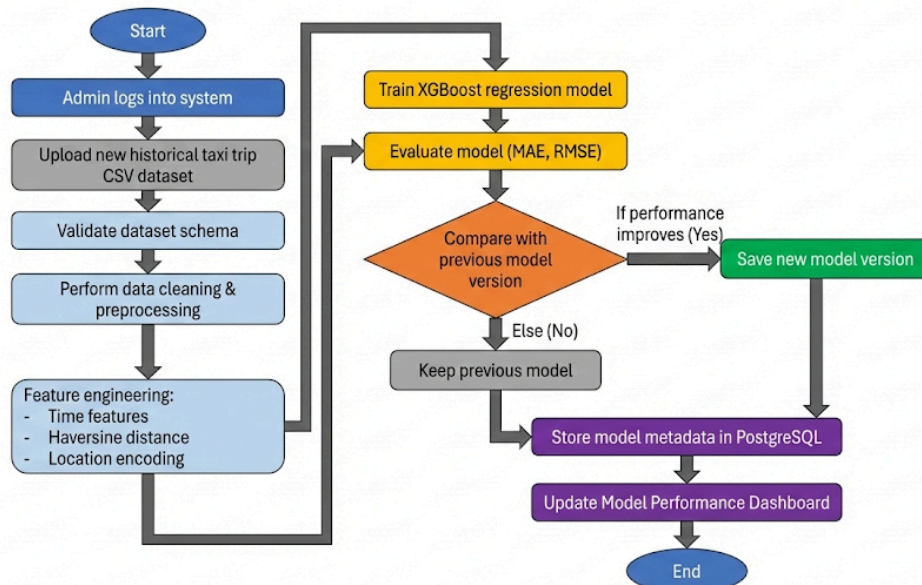
# 1.Consumer Flow Diagram (User / Dispatcher Perspective)

Taxi Trip Duration Prediction – Consumer Flow

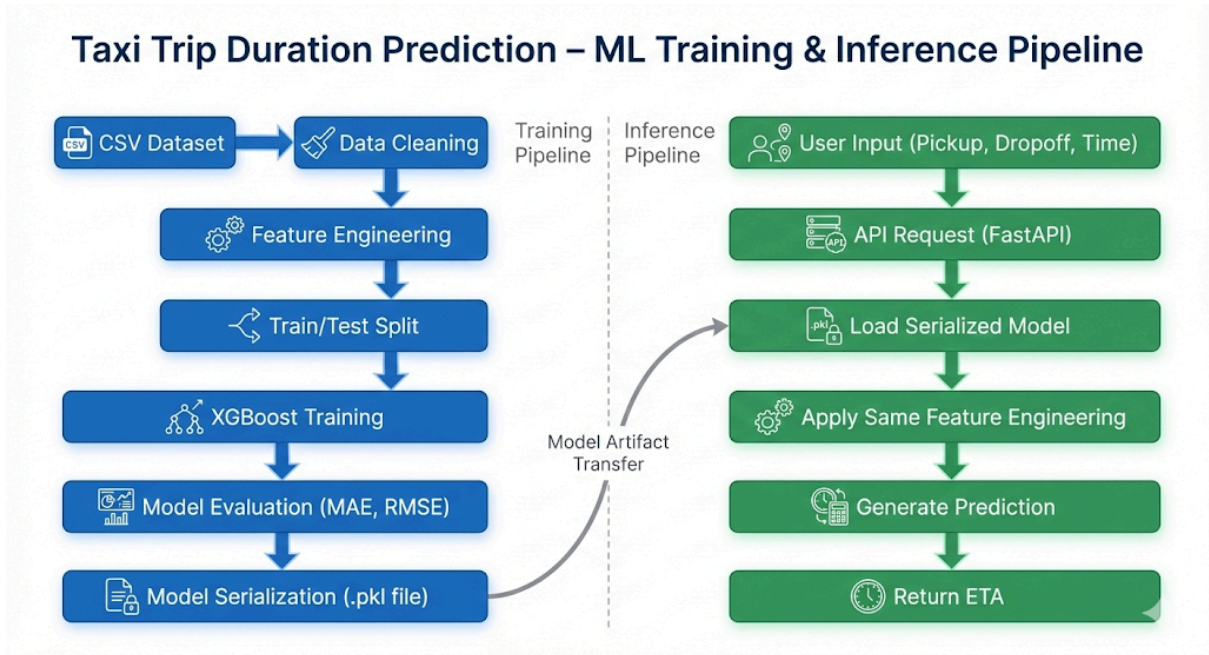


# 2.Admin / Retraining Flow Diagram

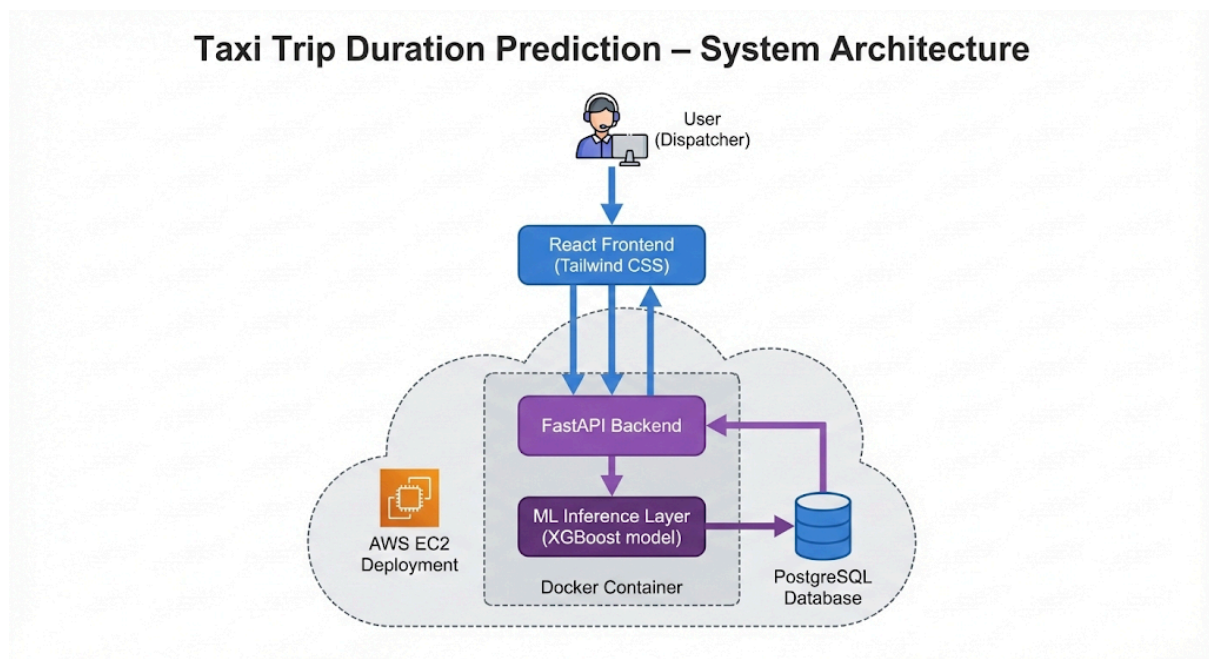
Taxi Trip Duration Prediction – Admin & Model Retraining Flow



### 3. ML Pipeline Diagram (Training vs Inference Separation)





### 4. High-Level System Architecture (HLD)



## 5.Database ER Diagram

### Taxi Trip Duration Prediction – Database Schema

trip_predictions
 <u>id</u> (PK) INT
pickup_location VARCHAR(255)
dropoff_location VARCHAR(255)
pickup_time TIMESTAMP
predicted_duration INT
created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP

model_metadata
 <u>model_version</u> (PK) VARCHAR(50)
training_date DATE
MAE FLOAT
RMSE FLOAT
model_path VARCHAR(255)