Architecture

Thyroid Disease Detection System

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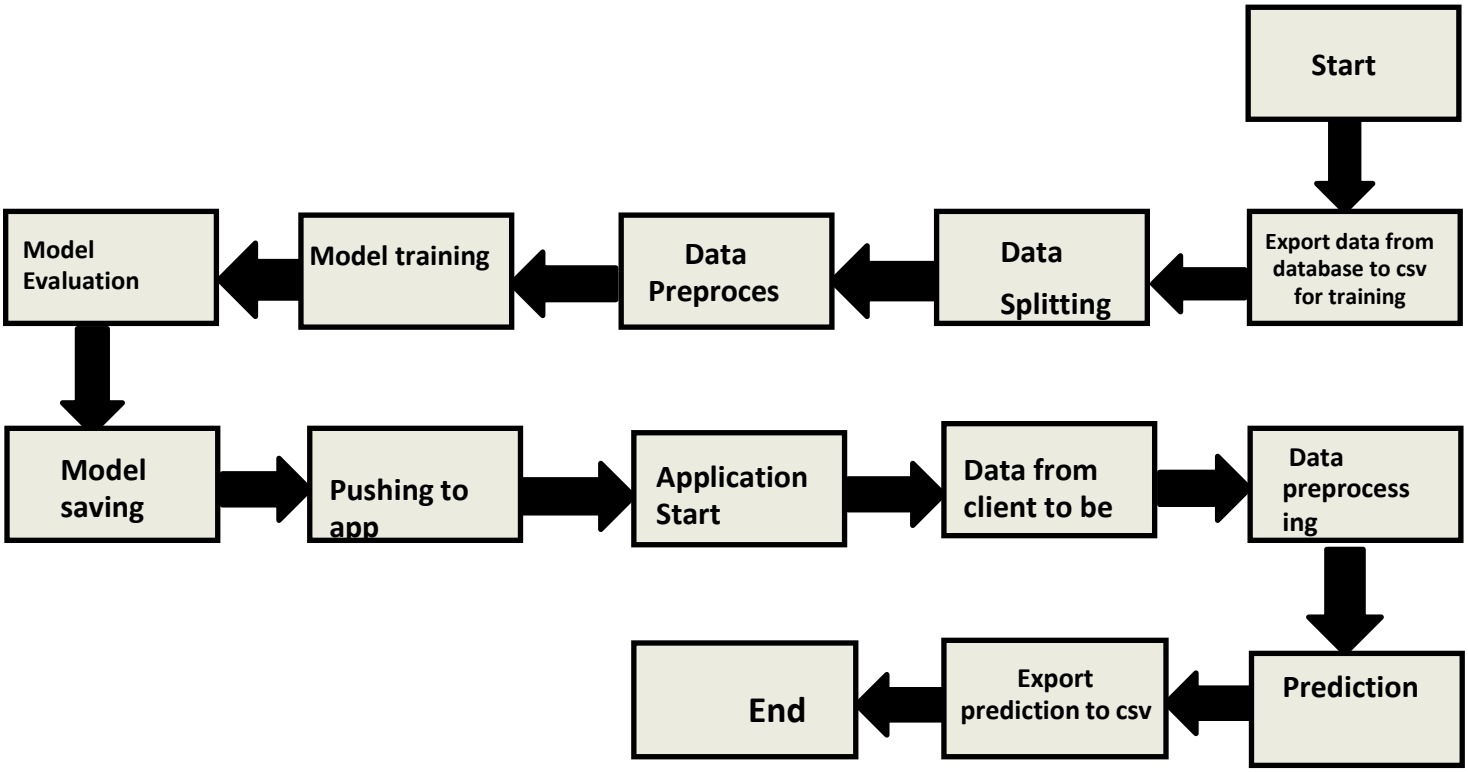
2. Architecture



3. Architecture Description

Data Description

We will be using Thyroid Disease Data Set present in UCI Machine Learning Repository. This Data set is satisfying our data requirement. Total 7200 instances present in different batches of data.

Export Data from database to CSV for Training

Here we will be exporting all batches of data from database into one csv file for training.

Data Splitting

We split the data here for our train and test data for further uses.

Data Preprocessing

We will be exploring our data set here and perform data preprocessing depending on the data set. We first explore our data set in Jupyter Notebook and decide what pre-processing and validation we have to do such as imputation of null values, dropping some column, handling imbalanced data etc and then we have to write separate modules according to our analysis, so that we can implement that for training as well as prediction data.

Model Training

We trained various model in our notebook and Random Forest Classifier was good on it. We trained with our processed data.

Model Evaluation

Model evaluation done by classification and report was saved.

Model Saving

We will save our models so that we can use them for prediction purpose.

Push to app

Here we will do cloud setup for model deployment. We also create our flask app and user interface and integrate our model with flask app and UI.

Data from client side for prediction purpose

Now our application on cloud is ready for doing prediction. The prediction data which we receive from client side.

Data processing

Client data will also go along the same process Data pre-processing and according to that we will predict those data.

Export Prediction to CSV

Finally when we get all the prediction for client data, then our final task is to export prediction to csv file and hand over it to client.