Architecture

Thyroid Disease Detection System

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Contents

Document Version control 2

1 Architecture 4

2 Architecture Description 5

2.1 Data Description

52.2 Export Data from DB to CSV for training---------- 5

2.3 Data Splitting 5

2.4 Data Preprocessing

52.5 Model Training---------- 5

2.6 Model Evaluation 5

2.7 Model saving 5

2.8 Cloud setup 6

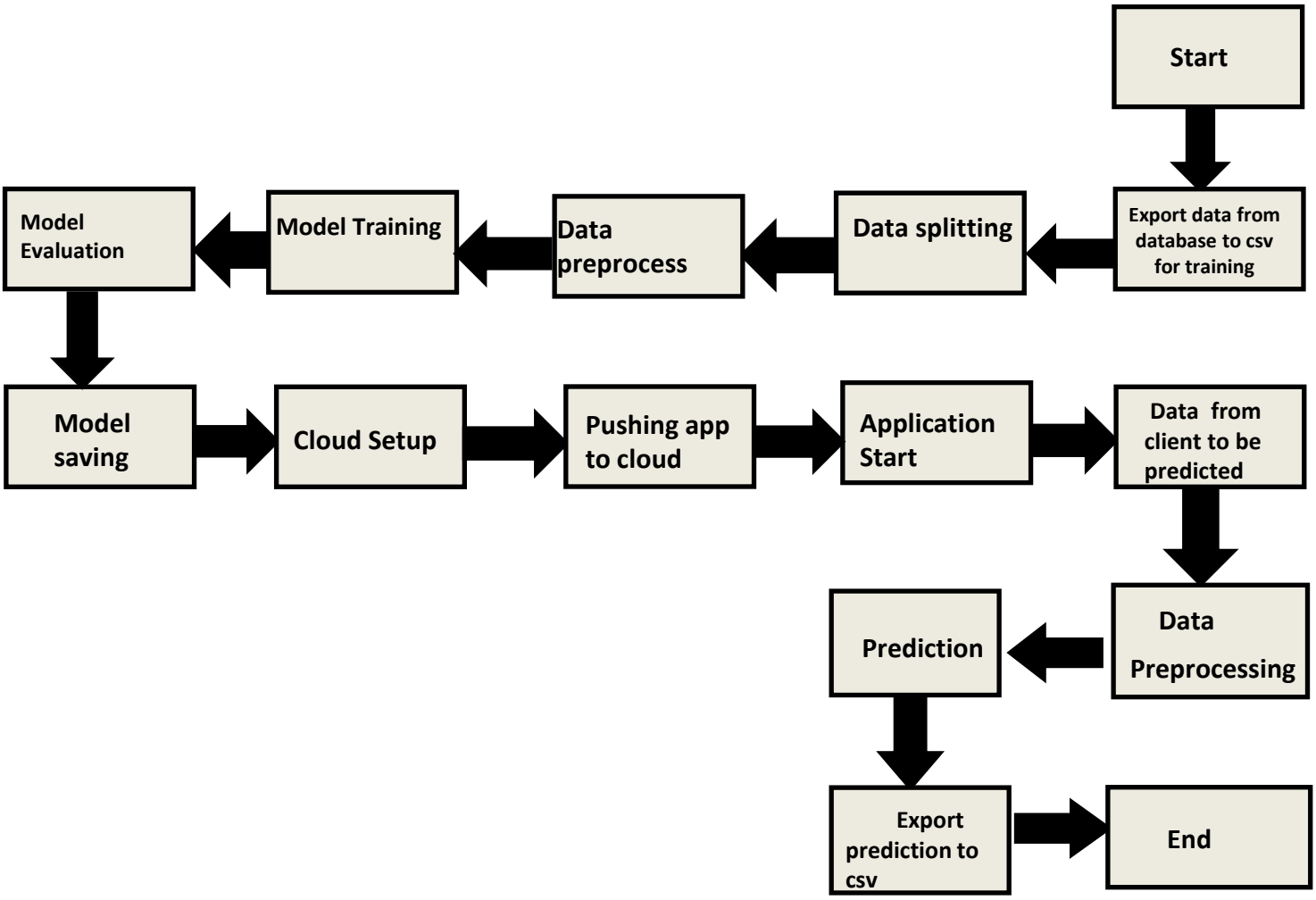
2.9 Push App to cloud

62.10 Data from client side for prediction---------- 6

2.11 Data processing and Prediction----------6

2.12 Export prediction to CSV 6

2. Architecture



2. Architecture Description

2.1 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 3772 instances present in different batches of data.

2.2 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.

2.3 Data Splitting

We filter the columns for splitting the data for train and test for further uses

2.4 Data Preprocessing

We will be exploring our data set here and do EDA if required 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, 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.

2.5 Data Training

We trained a RandomForestClassifier model in our notebook and was good on it. We trained with our processed data.

2.6 Model Evaluation

Model evaluation done by classification and report was saved to .pkl file

2.7 Model Saving

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

2.8 Cloud Setup

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

2.9 Push app to cloud

After doing cloud setup and checking app locally, we will push our app to cloud to start the application.

2.10 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.

2.11 Data processing and Prediction

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

2.12 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.