**Prediction Of Hospital Admission Using Machine Learning**

**Software requirements**

**• Programming Language : Python, Colab**

**• Packages : Numpy,Matplotlib, SKLearn, Pandas,**

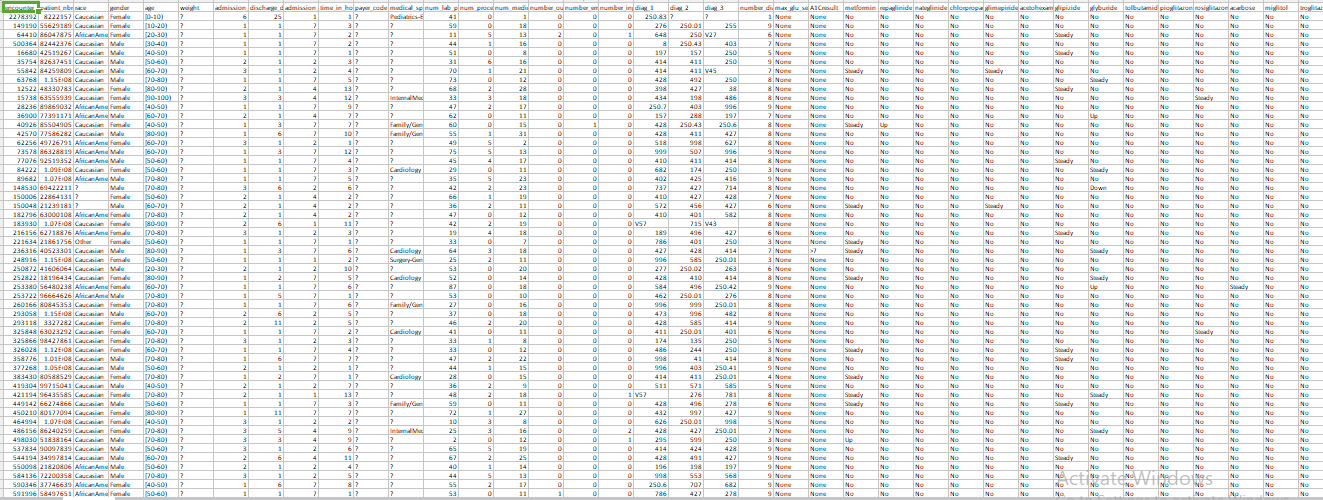
**• Tool : Python 3.7**

**Data set description:**

For hospital admission prediction we take patients data. This data consists fifty columns and 101766 records.

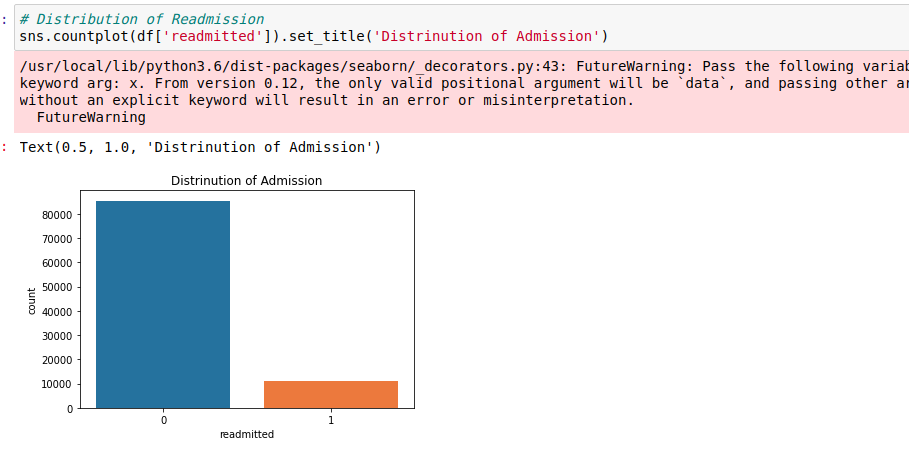
**encounter\_id, patient\_nbr, race,gender, age, weight, admission\_type\_id, discharge\_diposition\_id, admission\_source\_id, time\_in\_hospital, payer\_code, m, edical\_specialty, num\_lab\_procedures, num\_procedures, num\_medications, number\_outpatient, number\_emergency, number\_inpatient, diag\_1, diag\_2, diag\_3, number\_diagnoses, max\_glu\_serum, A1Cresult, metformin, repaglinide, nateglinide, chlorpropamide, glimepiride, acetohexamide, glipizide, glyburide, tolbutamide, pioglitazone, rosiglitazone, acarbose, acarbose, miglitol, troglitazone, tolazamide, examide, citoglipton, insulin, glyburide-metformin, glipizide-metformin, glimepiride-pioglitazone, metformin-rosiglitazone, metformin-pioglitazone, change, diabetesMed, readmitted**

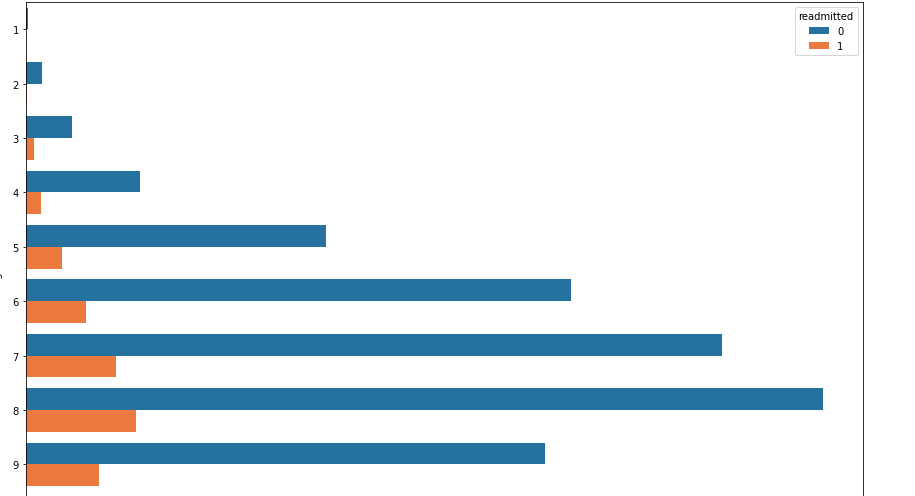
above all names are dataset column names.



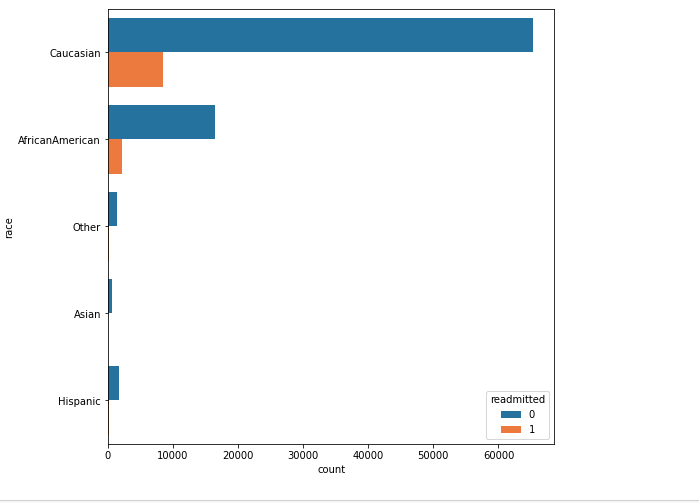
****

**Data Visualization**

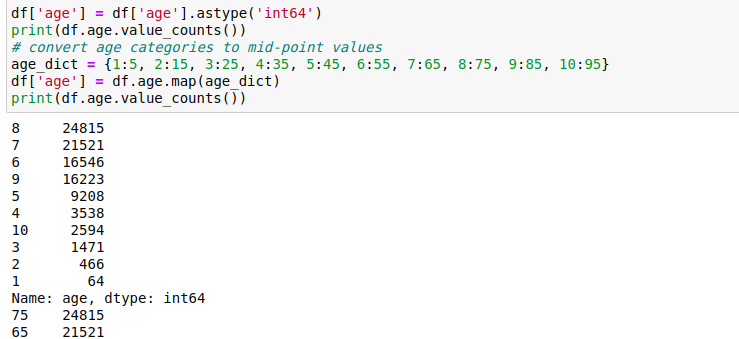
****

****

**Based on age and admission**

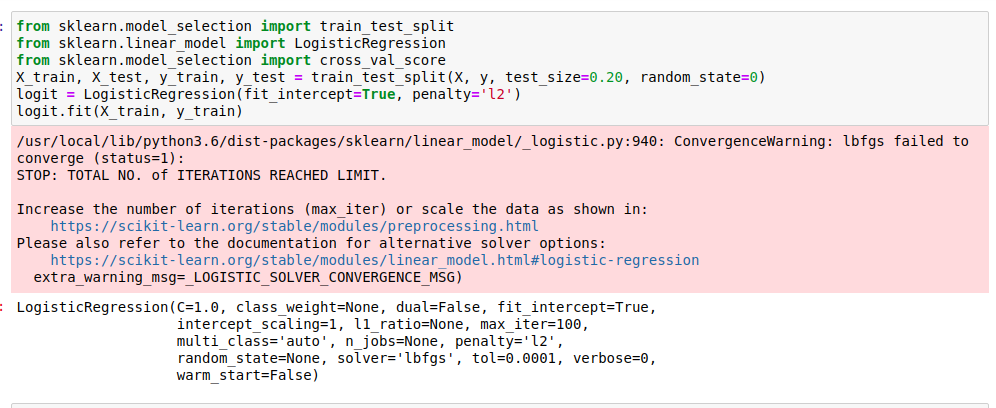
****

**Based on race and admission**

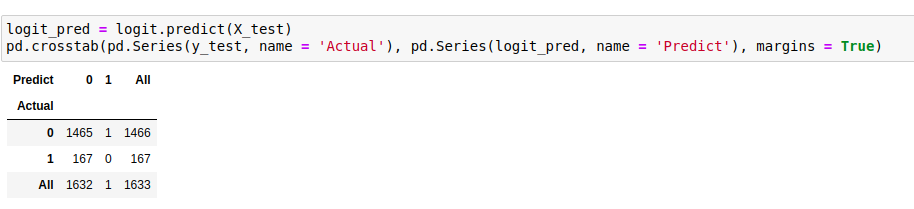
****

**Modelling and Data preprocessing**

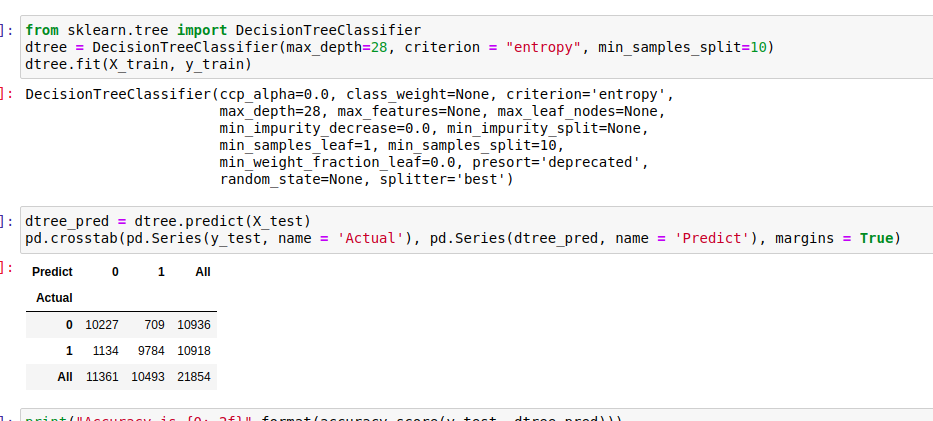
**ML deploying**

****

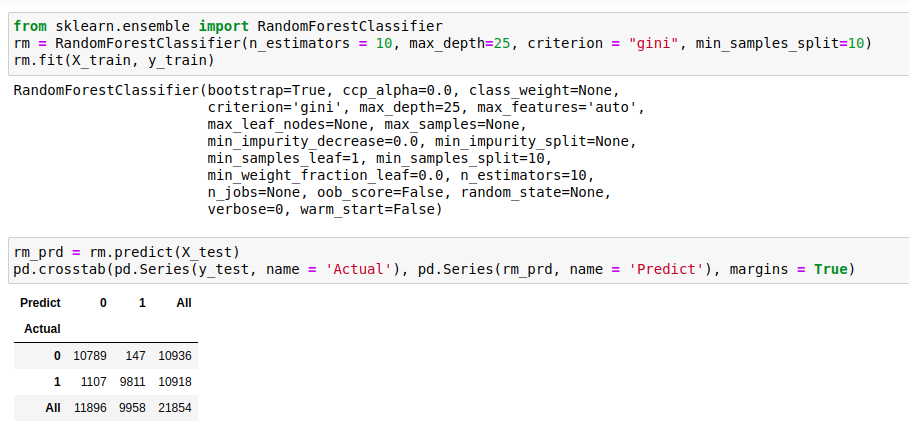
**Prediction based on LR**

****

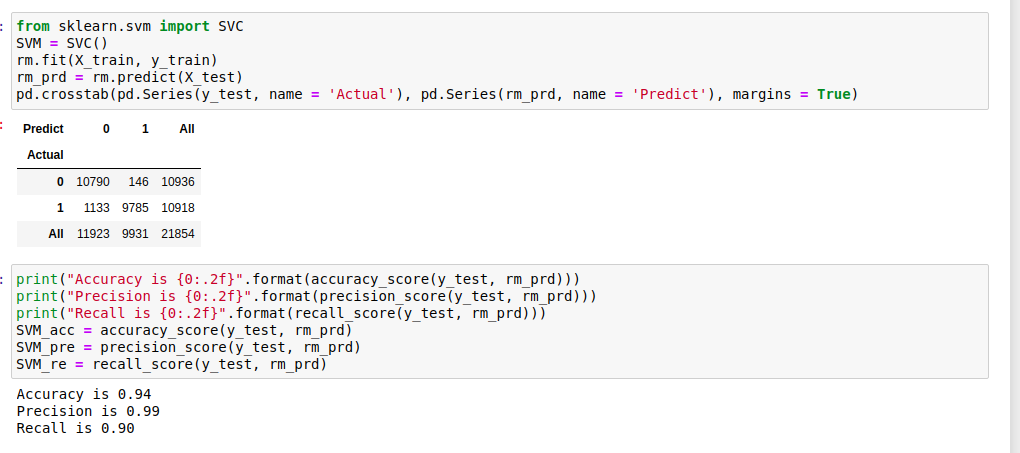
**Prediction based on DT**

****

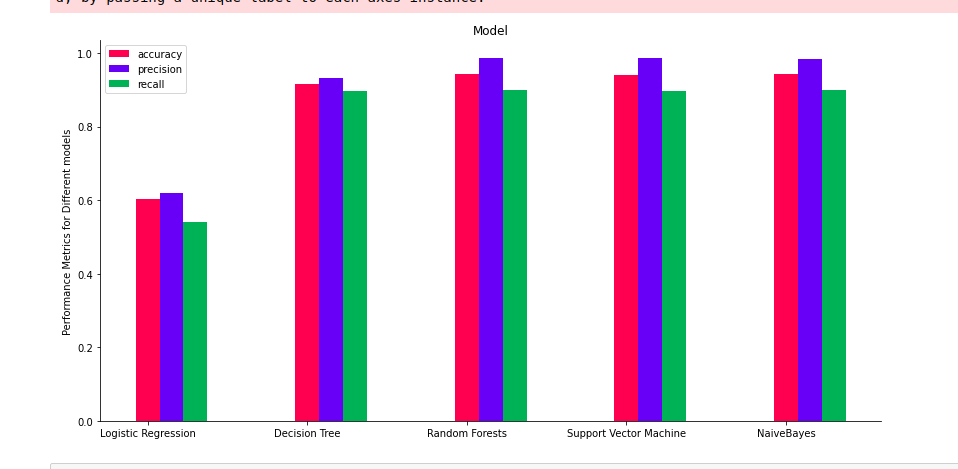
**Prediction based on RF**

****

**Prediction based on SVM**

****

**Model Comparsion**

****

**From the above the RF & SVM are giving better accuracy for prediction**