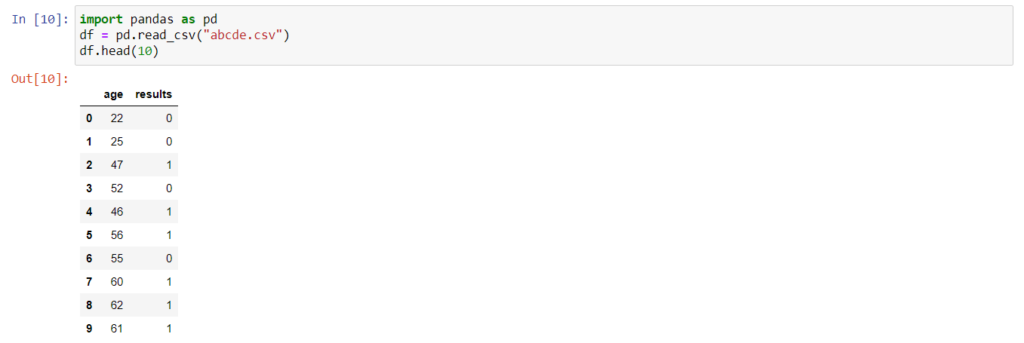
Logistic Regression

Logistic regression is used when we have a categorical data (‘yes’,’no’,’true’,’false’,’0′,’1′,’positive’,’negative’), as in our below mentioned example where different ages people played a particular game and results are mentioned as ‘0’ for lose and ‘1’ for win.

import pandas as pd

df = pd.read\_csv("abcde.csv")

df.head(10)



Now we need to split the data into training and testing data and for that we import train\_test\_split from sklearn.model\_selection with a train size specified as 0.8 i.e. 80% of training data and remaining 20% would be testing data.

from sklearn.model\_selection import train\_test\_split

X\_train, X\_test, y\_train, y\_test = train\_test\_split(df[['age']],df.results,train\_size=0.8,random\_state=10)

Then we import LogisticRegression from sklearn.linear\_model and use *fit()* to train the model.

from sklearn.linear\_model import LogisticRegression

model = LogisticRegression()

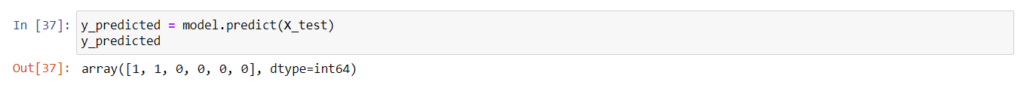
model.fit(X\_train, y\_train)



After the model is trained we try to predict by providing X\_test values to model and model generates predictions as mentioned below.

y\_predicted = model.predict(X\_test)

y\_predicted



model.score(X\_test,y\_test)

