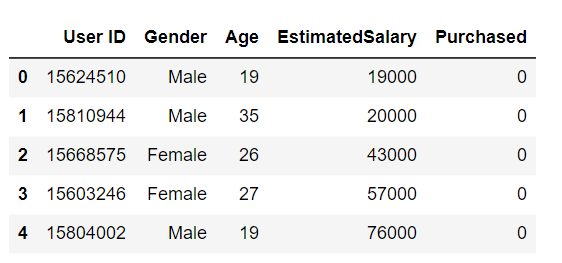
import pandas as pd

import matplotlib.pyplot as plt

data = pd.read\_csv("Social\_Network\_Ads.csv")

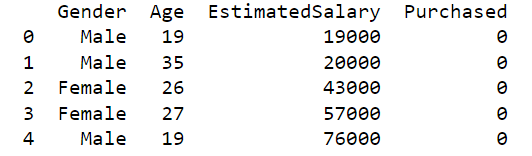
data.head()

output:

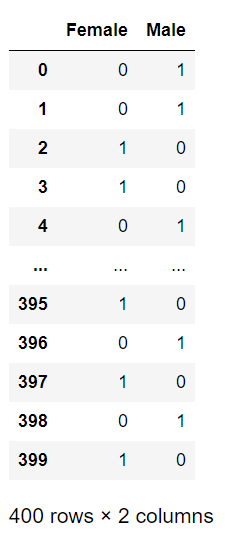


data = data[['Gender','Age','EstimatedSalary','Purchased']]

print(data.head())

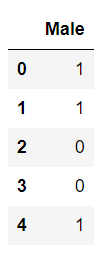


pd.get\_dummies(data['Gender'])



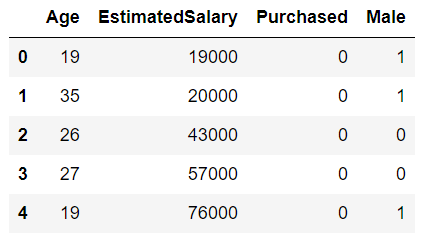
sex = pd.get\_dummies(data['Gender'],drop\_first=True)

sex.head()



data\_p = pd.concat([data,sex],axis=1)

data\_p.head()



X = data\_p[['Age','EstimatedSalary','Male']].values

y = data\_p['Purchased'].values

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

X\_train,X\_test,y\_train,y\_test = train\_test\_split(X,y,random\_state=0,test\_size=0.3)

from sklearn.preprocessing import StandardScaler

s = StandardScaler()

X\_train = s.fit\_transform(X\_train)

X\_test = s.fit\_transform(X\_test)

from sklearn.linear\_model import LogisticRegression

log = LogisticRegression()

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

predict = log.predict(X\_test)

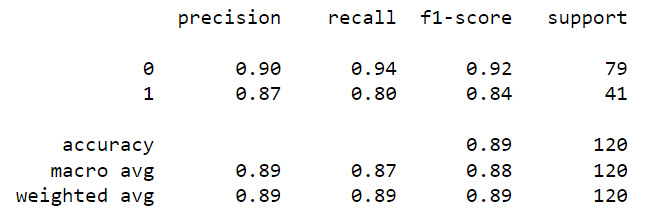
from sklearn.metrics import classification\_report,confusion\_matrix

print(confusion\_matrix(y\_test,predict))

out: [[74 5]

[ 8 33]]

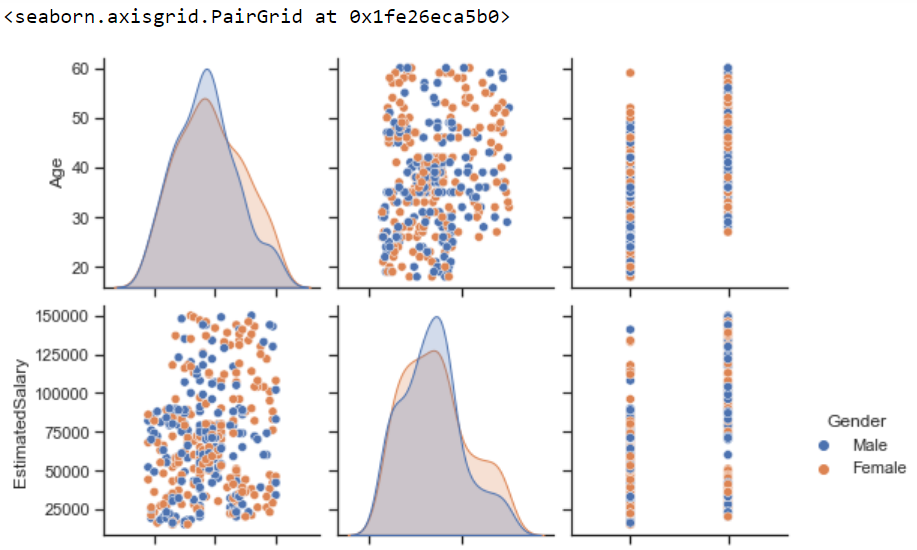
print(classification\_report(y\_test,predict))

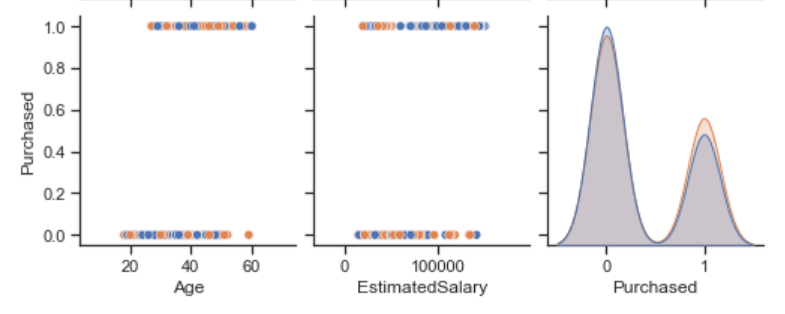


import seaborn as sns

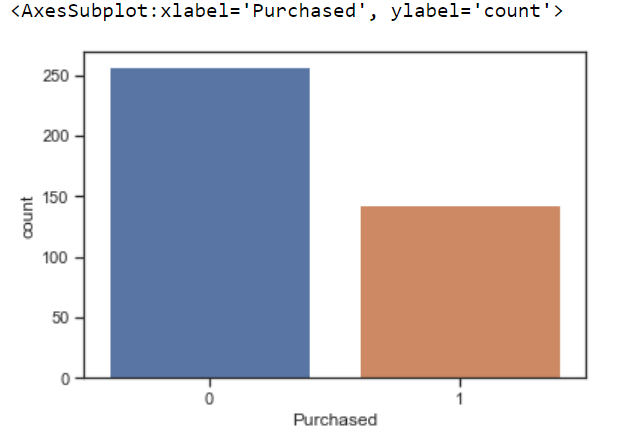
sns.set(style="ticks")

sns.pairplot(data, hue="Gender")





sns.countplot(x="Purchased",data=data)



sns.countplot(x="Purchased",hue="Gender",data=data)

