MACHINE LEARNING

Multiple Linear Regression

Step-1

```
import pandas as pd
df = pd.read_csv("mldata1.csv")
df.head()
```

	age	height	weight	gender	likeness
0	27	170.688	76.0	Male	Biryani
1	41	165	70.0	Male	Biryani
2	29	171	80.0	Male	Biryani
3	27	173	102.0	Male	Biryani
4	29	164	67.0	Male	Biryani

Step-2 Making input and input and output variable

```
df["gender"] = df["gender"].replace("Male",1)
df["gender"] = df["gender"].replace("Female",0)
```

```
X = df[["weight","gender"]]
y = df["likeness"]
```

Step-3 Making Machine Learning

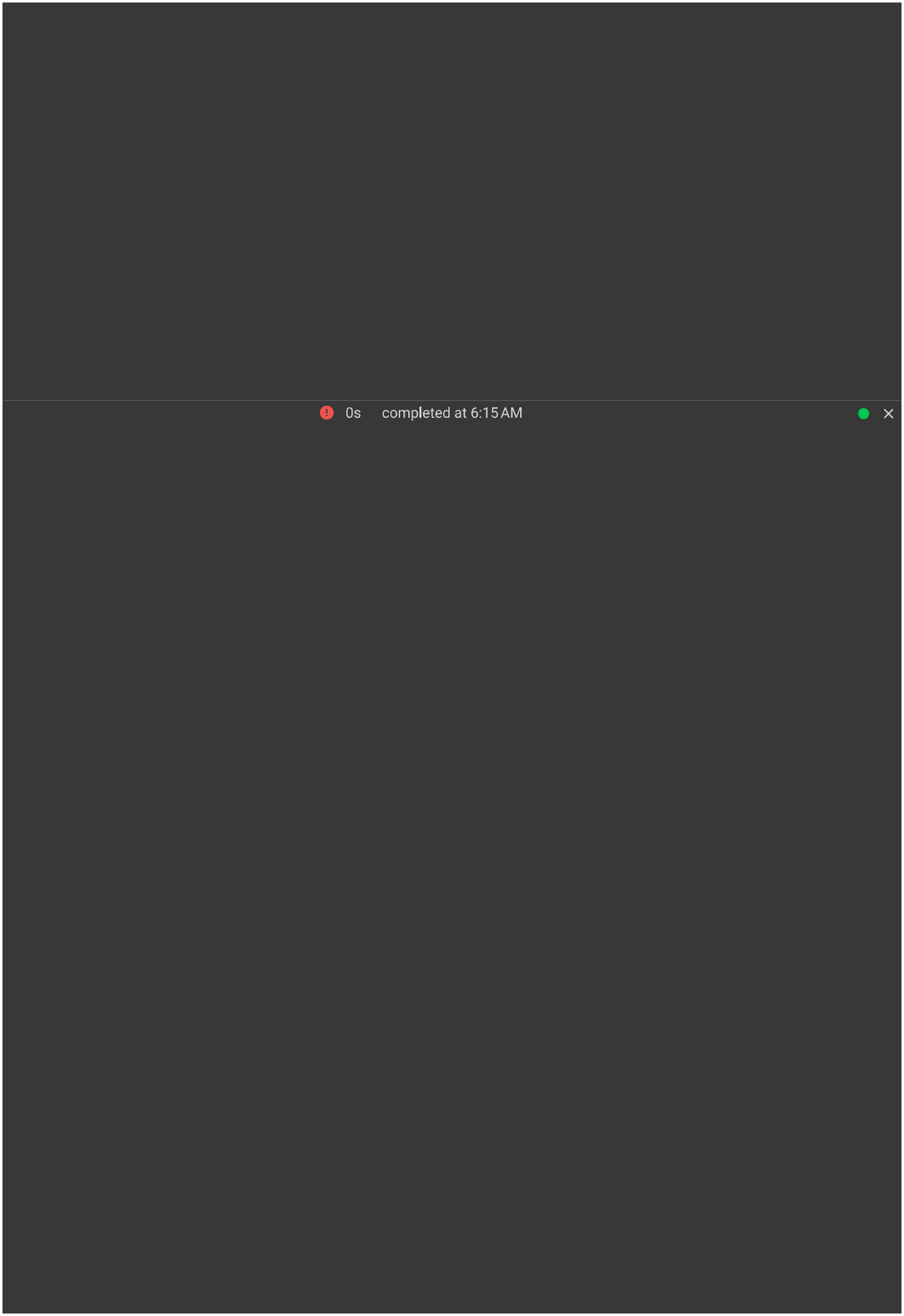
```
from sklearn.tree import DecisionTreeClassifier
model = DecisionTreeClassifier().fit(X,y)
model.predict([[25,0]])
```

```
/usr/local/lib/python3.10/dist-packages/sklearn/base.py:439: UserWarning: X does not have valid feature
  warnings.warn(
array(['Biryani'], dtype=object)
```

Step-4 Evaluating Model Fitness

```
#Model Fitness
print("Score for data =" , model.score(X,y))
```

```
Score for data = 0.763265306122449
```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