Importing and Applying Saved Models

In [ ]:
```
# import libraries
import pandas as pd
df= pd.read_csv('mldata1.csv')
df.head()
```

Out[ ]:

	age	height	weight	gender	likeness
0	27	170.688	76.0	Male	Biryani
1	41	165.000	70.0	Male	Biryani
2	29	171.000	80.0	Male	Biryani
3	27	173.000	102.0	Male	Biryani
4	29	164.000	67.0	Male	Biryani

Prediction of age using Wieght, height, gender , and likeness

In [ ]:
```
# get dummies from gender and likeness
df['likeness']= df['likeness'].replace('Biryani',1)
df['likeness']= df['likeness'].replace('Pakora',3)
df['likeness']= df['likeness'].replace('Samosa',2)
df['gender']= df['gender'].replace('Male',1)
df['gender']= df['gender'].replace('Female',0)
```

In [ ]:
```
df.tail()
```

Out[ ]:

	age	height	weight	gender	likeness
240	31	160.0	60.0	1	3
241	26	172.0	70.0	1	1
242	40	178.0	80.0	1	1
243	25	5.7	65.0	1	1
244	33	157.0	56.0	0	2

In [ ]:
```
x = df[['weight','height', 'gender', 'likeness']]
y = df['age']
x.head()
```

Out[ ]:

	weight	height	gender	likeness
0	76.0	170.688	1	1
1	70.0	165.000	1	1
2	80.0	171.000	1	1
3	102.0	173.000	1	1
4	67.0	164.000	1	1

importing the saved model

In [ ]:
```
from sklearn.tree import DecisionTreeClassifier
model= DecisionTreeClassifier()


import joblib
model_from_joblib = joblib.load('Gender.joblib')
```

Fitting the loaded model

In [ ]:
```
model_from_joblib.fit(x,y)
```

Out[ ]:
```
DecisionTreeClassifier()
```

Prediction through fitted Model

In [ ]:
```
# prediction
model_from_joblib.predict([[80,131,1,3]])
```

Out[ ]:
```
C:\Users\Haier\AppData\Local\Programs\Python\Python310\lib\site-packages\sklearn\base.py:450: UserWarning: X does not have valid feature names, but DecisionTreeClassifier was fitted with feature names
  warnings.warn(
array([27], dtype=int64)
```

Measuring the accuracy of fitted moodel

In [ ]:
```
model_from_joblib.score(x,y)
```

Out[ ]:
```
0.9877551020408163
```