

```
#SUPPORT VECTOR CLASSIFIER
```

```
#importing libraries
```

```
import pandas as pd
```

```
import numpy as np
```

```
import matplotlib.pyplot as plt
```

```
data = pd.read_csv(r'C:\Users\GLAU\Desktop\data_cleaned.csv')
```

```
data.head()
```

	Survived	Age	Fare	Pclass_1	Pclass_2	Pclass_3	
Sex_female \							
0	0	22.0	7.2500	0	0	1	0
1	1	38.0	71.2833	1	0	0	1
2	1	26.0	7.9250	0	0	1	1
3	1	35.0	53.1000	1	0	0	1
4	0	35.0	8.0500	0	0	1	0

	Sex_male	SibSp_0	SibSp_1	...	Parch_0	Parch_1	Parch_2	Parch_3
\								
0	1	0	1	...	1	0	0	0
1	0	0	1	...	1	0	0	0
2	0	1	0	...	1	0	0	0
3	0	0	1	...	1	0	0	0
4	1	1	0	...	1	0	0	0

	Parch_4	Parch_5	Parch_6	Embarked_C	Embarked_Q	Embarked_S
0	0	0	0	0	0	1
1	0	0	0	1	0	0
2	0	0	0	0	0	1
3	0	0	0	0	0	1
4	0	0	0	0	0	1

```
[5 rows x 25 columns]
```

```
#separating independant and dependant variables
```

```
x = data.drop(['Survived'], axis=1)
```

```
y = data['Survived']
```

```
x.shape, y.shape
```

```
((891, 24), (891,))
```

```
#splitting the data into train set and test set  
#importing the train test split function  
from sklearn.model_selection import train_test_split  
train_x, test_x, train_y, test_y = train_test_split(x,y, random_state  
= 10)
```

```
#importing support vector classifier  
from sklearn.svm import SVC
```

```
#Creating the instance of SVM  
svc = SVC()
```

```
#fitting the model  
k = svc.fit(train_x, train_y)  
print('Training Score', k)
```

Training Score SVC()

```
# Predicting over the Train Set  
train_predict = svc.predict(train_x)  
k = svc.score(train_x, train_y)  
print('Training Score', k )
```

Training Score 0.6482035928143712

```
# Predicting over the Test  
test_predict = svc.predict(test_x)  
k = svc.score(test_x, test_y)  
print('Test score', k )
```

Test score 0.726457399103139