Assignment No. 3

k-NN Classification

41323_Gayatri

In [8]:

```
#import the packages
import pandas as pd
import numpy as np
```

In [9]:

```
#Read dataset
dataset=pd.read_csv("A3dataset.csv")
dataset
```

Out[9]:

	x	y	class
0	2	4	negative
1	4	6	negative
2	4	4	positive
3	4	2	negative
4	6	4	negative
5	6	2	positive

In [10]:

```
X=dataset.iloc[:,:-1].values
y=dataset.iloc[:,2].values
```

In [ ]:

```

```

In [11]:

```
#import KNeighborshood Classifier and create object of it
from sklearn.neighbors import KNeighborsClassifier
classifier=KNeighborsClassifier(n_neighbors=3)
classifier.fit(X,y)
```

Out[11]:

```
KNeighborsClassifier(n_neighbors=2)
```

In [12]:

```
#predict the class for the point(6,6)
X_test=np.array([6,6])
y_pred=classifier.predict([X_test])
print('General KNN',y_pred)
```

```
General KNN ['negative']
```

In [13]:

```
classifier=KNeighborsClassifier(n_neighbors=3,weights='distance')
classifier.fit(X,y)
```

Out[13]:

```
KNeighborsClassifier(n_neighbors=3, weights='distance')
```

In [14]:

```
#predict the class for the point(6,6)
X_test=np.array([6,6])
y_pred=classifier.predict([X_test])
print('Distance Weighted KNN',y_pred)
```

```
Distance Weighted KNN ['negative']
```

In [ ]:

```

```