

Weilin Lu
Assign12-seed
Q1

```
For Linear
The Accuracy is 44.9%
Confusion matrix is:
TP: 0
FP: 27
FN: 0
TN: 22

For Gaussian:
The Accuracy is 55.1%
Confusion matrix is:
TP: 14
FP: 0
FN: 16
TN: 20

For Polynomial
The Accuracy is 51.02% with SVM Polynomial for degree 3
Confusion matrix is:
TP: 22
FP: 7
FN: 10
TN: 11
```

1

```
For Linear
The Accuracy is 44.9%
Confusion matrix is:
TP: 0
FP: 27
FN: 0
TN: 22
```

2

```
For Gaussian:
The Accuracy is 55.1%
Confusion matrix is:
TP: 14
FP: 0
FN: 16
TN: 20
```

3

```
For Polynomial
The Accuracy is 51.02% with SVM Polynomial for degree 3
Confusion matrix is:
TP: 22
FP: 7
FN: 10
TN: 11
```

Q2

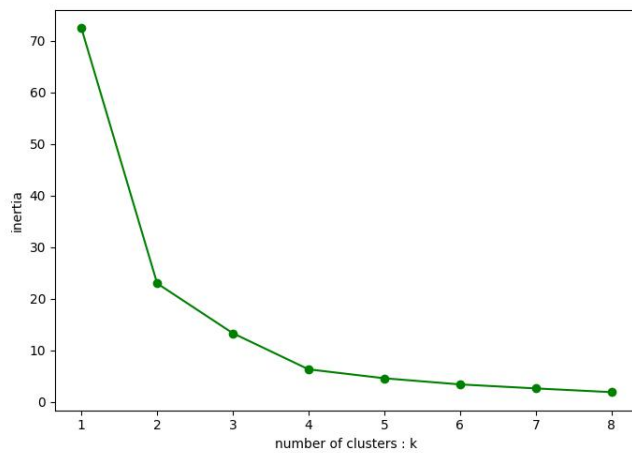
```
The Accuracy is 45% with Logistic regression

Confusion matrix is
TP: 0
FP: 27
FN: 0
TN: 22
Question 3:
```

Model	TP	FP	FN	TN	accuracy	TPR	TNR
linear SVM	0	27	22	0	44.9%	1	0
Gaussian SVM	14	0	16	20	55.1%	0.56	1
polynomial SVM	22	7	10	11	51.02%	0.52	0.76
Logistic Regression	0	27	0	22	45%	1	0

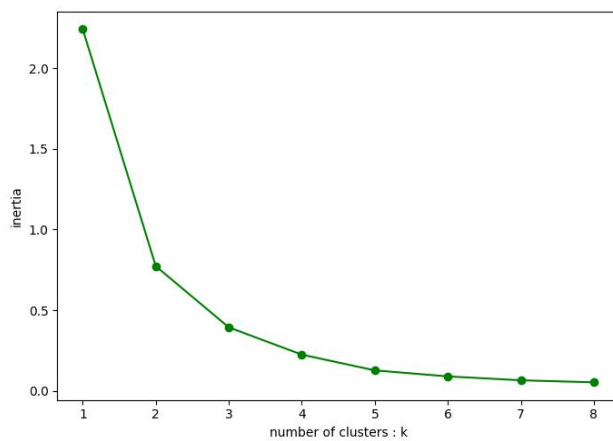
Q3

1



The best kmeans=2

2



The best kmeans=2