In [1]:
```
import pandas as pd
data = pd.read_csv("AUTOMOBILE_DISTANCE_FILE.csv")
data.columns
```

Out[1]:
```
Index(['dual front air bags', 'ABS', 'RARE DEFOGGER', 'rear parking sensor',
       'IRVM', 'ELECTRICAL ORVM', 'CENTRAL LOCKING', 'ALL FOR POWER WINDOWS',
       'AUDIO SYSTEM', 'COMFORTABLE SEATS', 'ELECTRICAL ADJUSTABLE SEAT',
       'KEYLESS ENTRY', 'AC', 'Triple Turn Indicatoe', 'Fog lamps',
       'Rear View cam', 'Power_Charge', 'Lights', 'Tool kit', 'Touch Screen',
       'Warranty'],
      dtype='object')
```

In [2]:
```
data.head( )
```

Out[2]:

	dual front air bags	ABS	RARE DEFOGGER	rear parking sensor	IRVM	ELECTRICAL ORVM	CENTRAL LOCKING	ALL FOR POWER WINDOWS	AUDIO SYSTEM	COMFO
0	4	4	0	4	5	4	2	2	3	
1	3	5	0	4	5	4	4	4	3	
2	4	3	3	3	3	5	3	4	3	
3	4	4	4	5	3	4	5	5	3	

4 rows × 21 columns

In [3]:
```
from sklearn.metrics.pairwise import euclidean_distances
ans1= euclidean_distances(data)
ans1
```

Out[3]:
```
array([[ 0.        ,  6.08276253, 10.63014581, 10.24695077],
       [ 6.08276253,  0.        ,  9.2736185 ,  7.87400787],
       [10.63014581,  9.2736185 ,  0.        ,  6.63324958],
       [10.24695077,  7.87400787,  6.63324958,  0.        ]])
```

In [4]:
```
from sklearn.metrics.pairwise import manhattan_distances
ans2= manhattan_distances(data)
ans2
```

Out[4]:
```
array([[ 0., 13., 37., 33.],
       [13.,  0., 32., 24.],
       [37., 32.,  0., 20.],
       [33., 24., 20.,  0.]])
```

In [5]:
```
from sklearn.metrics.pairwise import cosine_distances
cosine_distances(data)
```

Out[5]:
```
array([[0.        , 0.06303101, 0.20274155, 0.17515306],
       [0.06303101, 0.        , 0.15419114, 0.10349841],
       [0.20274155, 0.15419114, 0.        , 0.07493224],
       [0.17515306, 0.10349841, 0.07493224, 0.        ]])
```

In [6]:
```
from sklearn.metrics.pairwise import cosine_similarity
cosine_similarity(data)
```

Out[6]:
```
array([[1.        , 0.93696899, 0.79725845, 0.82484694],
       [0.93696899, 1.        , 0.84580886, 0.89650159],
       [0.79725845, 0.84580886, 1.        , 0.92506776],
       [0.82484694, 0.89650159, 0.92506776, 1.        ]])
```