Part1 : Output

```
Clustering results using dot product kernel:
     4
     4
     4
     1
     3
     2
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     4
     1
     1
     1
     1
```

```
Clustering results using polynomial kernel (degree 2):
     4
     1
     4
     1
     3
     2
     1
     4
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     4
     1
     1
     1
     1
```

** Analysis of Diagonal Sub-Matrices (assuming class labels in file names) **
  - Class 1:
     Mean similarity: 788266
     Standard deviation of similarity: 0
     Jaccard similarity matrix (upper triangle):
    0

  - Class 2:
     Mean similarity: 13413901.4082
     Standard deviation of similarity: 89544382.1049
     Jaccard similarity matrix (upper triangle):
    0
    1
    1
    1
    1
    1
    1
    0
    1
    1
    1
    1
    1
    0
    1
    1
    1
    1
    0
    1
    1
    1
    0
    1
    1
    0
    1
    0

  - Class 3:
     Mean similarity: 626.16
     Standard deviation of similarity: 2104.5498
     Jaccard similarity matrix (upper triangle):
    0
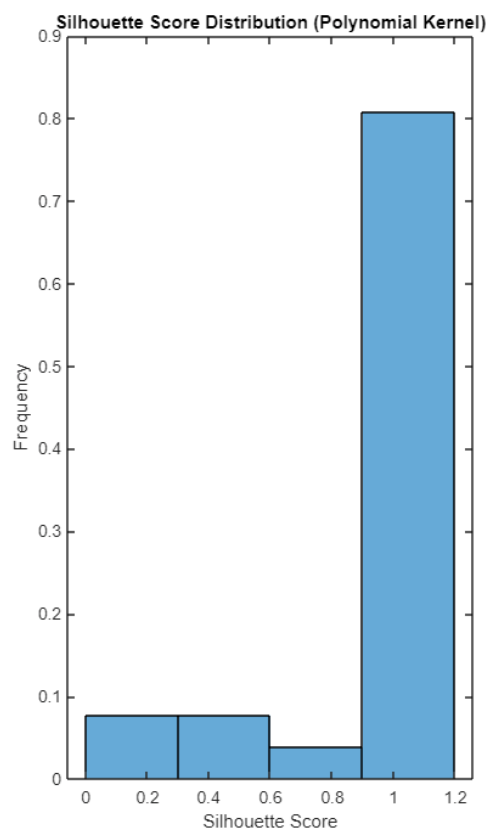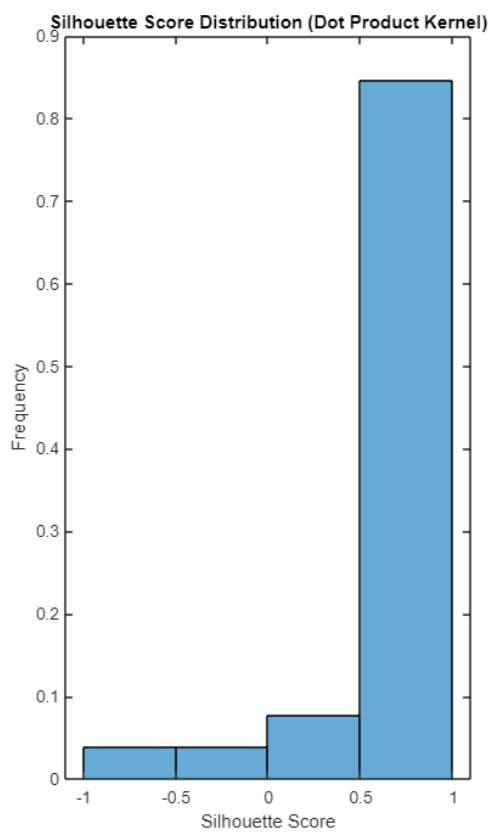   1
    1
    1
    1
    1
    1
    1
    1
    1
    0
    1
    1
    1

```
1
1
1
1
1
0
1
1
1
1
1
1
1
0
1
1
1
1
1
1
0
1
1
1
1
1
0
1
1
1
1
0
1
1
1
0
1
1
0
1
0
```

- Class 4:
    Mean similarity: NaN
    Standard deviation of similarity: NaN
    Jaccard similarity matrix (upper triangle):
- Class 5:
    Mean similarity: NaN
    Standard deviation of similarity: NaN
    Jaccard similarity matrix (upper triangle):

Silhouette Score Distribution (Dot Product Kernel)

Silhouette Score Distribution (Polynomial Kernel)

Part2 : Output

```
Clustering results using dot product kernel:
     4
     1
     4
     1
     3
     2
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
     1
```

```
      1
      1
      1
```

Clustering results using polynomial kernel (degree 2):
```
      4
      1
      4
      1
      3
      2
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
      1
```

Average Silhouette Score using dot product kernel clustering:
    0.9468

Average Silhouette Score using polynomial kernel clustering:
    0.9796

** Analysis of Diagonal Sub-Matrices (assuming class labels in file names) **
  - Class 1:
    Mean similarity: 1628396237
    Standard deviation of similarity: 0
    Jaccard similarity matrix (upper triangle):
    0

  - Class 2:
    Mean similarity: 3554904633.9184
    Standard deviation of similarity: 13264137683.8259
    Jaccard similarity matrix (upper triangle):
    0
    1
    1
    1
    1
    1
    1
    0
    1

1
1
1
1
0
1
1
1
1
0
1
1
1
0
1
1
0
1
0

- Class 3:
   Mean similarity: 16998816.5
   Standard deviation of similarity: 19601707.4591
   Jaccard similarity matrix (upper triangle):
0
1
1
1
1
1
1
1
1
1
0
1
1
1
1
1
1
1
1
0
1
1
1
1
1
1
1
0
1
1
1
1
1
1

```
0
1
1
1
1
1
0
1
1
1
1
0
1
1
1
0
1
1
0
1
0
```

- Class 4:
    Mean similarity: NaN
    Standard deviation of similarity: NaN
    Jaccard similarity matrix (upper triangle):
- Class 5:
    Mean similarity: NaN
    Standard deviation of similarity: NaN
    Jaccard similarity matrix (upper triangle):

Silhouette Score Distribution (Dot Product Kernel)

Silhouette Score Distribution (Polynomial Kernel)