

Brute force place recognition using Brute Force matcher

```

-----
No. of nodes = 30
No. of query images = 1
No. of putatives = 5
Max no. of features = 100
Debug mode = on
Trial image set path - Panoramas/
Query image set path - Test_Prince_Philip_actual/
Debug image set path - debug_images/
-----

```

Debug image directly created successfully!

Node 1 -> query image 1

101 features detected!

Checking for matches...

```

node 1 checked!...30 matches found!
node 2 checked!...34 matches found!
node 3 checked!...37 matches found!
node 4 checked!...37 matches found!
node 5 checked!...37 matches found!
node 6 checked!...32 matches found!
node 7 checked!...36 matches found!
node 8 checked!...33 matches found!
node 9 checked!...29 matches found!
node 10 checked!...32 matches found!
node 11 checked!...35 matches found!
node 12 checked!...33 matches found!
node 13 checked!...36 matches found!
node 14 checked!...35 matches found!
node 15 checked!...34 matches found!
node 16 checked!...35 matches found!
node 17 checked!...36 matches found!
node 18 checked!...32 matches found!
node 19 checked!...36 matches found!
node 20 checked!...33 matches found!
node 21 checked!...37 matches found!
node 22 checked!...36 matches found!
node 23 checked!...34 matches found!
node 24 checked!...42 matches found!
node 25 checked!...34 matches found!
node 26 checked!...36 matches found!
node 27 checked!...31 matches found!
node 28 checked!...39 matches found!
node 29 checked!...36 matches found!
node 30 checked!...33 matches found!

```

Voting array

```

-----
[30 34 37 37 37 32 36 33 29 32 35 33 36 35 34 35 36 32 36 33 37 36 34 42 34
 36 31 39 36 33]

```

Putative nodes

[21 3 28 24 4]

Best matching node from voting array

24

Presence of query node in putative nodes

Absent

Node 1 testing completed!

Node 2 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 2 testing completed!

Node 3 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 3 testing completed!

Node 4 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!

```
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 4 testing completed!

Node 5 -> query image 1

62 features detected!

Checking for matches...

```
node 1 checked!...23 matches found!
node 2 checked!...25 matches found!
node 3 checked!...29 matches found!
node 4 checked!...26 matches found!
node 5 checked!...29 matches found!
node 6 checked!...24 matches found!
node 7 checked!...26 matches found!
node 8 checked!...24 matches found!
node 9 checked!...22 matches found!
node 10 checked!...27 matches found!
node 11 checked!...24 matches found!
node 12 checked!...25 matches found!
node 13 checked!...24 matches found!
node 14 checked!...26 matches found!
node 15 checked!...25 matches found!
node 16 checked!...24 matches found!
node 17 checked!...30 matches found!
node 18 checked!...24 matches found!
node 19 checked!...25 matches found!
node 20 checked!...23 matches found!
node 21 checked!...28 matches found!
node 22 checked!...28 matches found!
node 23 checked!...28 matches found!
```

```
node 24 checked!...26 matches found!
node 25 checked!...23 matches found!
node 26 checked!...28 matches found!
node 27 checked!...21 matches found!
node 28 checked!...25 matches found!
node 29 checked!...23 matches found!
node 30 checked!...24 matches found!
```

Voting array

```
-----
[23 25 29 26 29 24 26 24 22 27 24 25 24 26 25 24 30 24 25 23 28 28 28 26 23
 28 21 25 23 24]
```

Putative nodes

```
-----
[23 17 5 3 21]
```

Best matching node from voting array

```
-----
17
```

Presence of query node in putative nodes

```
-----
Present
```

Node 5 testing completed!

Node 6 -> query image 1

```
-----
97 features detected!
```

Checking for matches...

```
node 1 checked!...31 matches found!
node 2 checked!...32 matches found!
node 3 checked!...36 matches found!
node 4 checked!...37 matches found!
node 5 checked!...37 matches found!
node 6 checked!...31 matches found!
node 7 checked!...35 matches found!
node 8 checked!...35 matches found!
node 9 checked!...29 matches found!
node 10 checked!...35 matches found!
node 11 checked!...31 matches found!
node 12 checked!...36 matches found!
node 13 checked!...42 matches found!
node 14 checked!...38 matches found!
node 15 checked!...30 matches found!
node 16 checked!...33 matches found!
node 17 checked!...37 matches found!
node 18 checked!...34 matches found!
node 19 checked!...32 matches found!
node 20 checked!...27 matches found!
node 21 checked!...39 matches found!
node 22 checked!...32 matches found!
node 23 checked!...41 matches found!
node 24 checked!...40 matches found!
node 25 checked!...32 matches found!
node 26 checked!...41 matches found!
```

node 27 checked!...35 matches found!
node 28 checked!...33 matches found!
node 29 checked!...29 matches found!
node 30 checked!...33 matches found!

Voting array

[31 32 36 37 37 31 35 35 29 35 31 36 42 38 30 33 37 34 32 27 39 32 41 40 32
41 35 33 29 33]

Putative nodes

[21 24 26 13 23]

Best matching node from voting array

13

Presence of query node in putative nodes

Absent

Node 6 testing completed!

Node 7 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!

node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 7 testing completed!

Node 8 -> query image 1

54 features detected!

Checking for matches...

node 1 checked!...25 matches found!
node 2 checked!...26 matches found!
node 3 checked!...22 matches found!
node 4 checked!...30 matches found!
node 5 checked!...27 matches found!
node 6 checked!...26 matches found!
node 7 checked!...26 matches found!
node 8 checked!...23 matches found!
node 9 checked!...26 matches found!
node 10 checked!...26 matches found!
node 11 checked!...27 matches found!
node 12 checked!...24 matches found!
node 13 checked!...25 matches found!
node 14 checked!...28 matches found!
node 15 checked!...24 matches found!
node 16 checked!...25 matches found!
node 17 checked!...29 matches found!
node 18 checked!...31 matches found!
node 19 checked!...28 matches found!
node 20 checked!...27 matches found!
node 21 checked!...28 matches found!
node 22 checked!...25 matches found!
node 23 checked!...27 matches found!
node 24 checked!...32 matches found!
node 25 checked!...25 matches found!
node 26 checked!...27 matches found!
node 27 checked!...26 matches found!
node 28 checked!...26 matches found!
node 29 checked!...29 matches found!
node 30 checked!...27 matches found!

Voting array

[25 26 22 30 27 26 26 23 26 26 27 24 25 28 24 25 29 31 28 27 28 25 27 32 25
27 26 26 29 27]

Putative nodes

[17 29 4 18 24]

Best matching node from voting array

24

Presence of query node in putative nodes

Absent

Node 8 testing completed!

Node 9 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 9 testing completed!

Node 10 -> query image 1

98 features detected!

Checking for matches...


```
node 1 checked!...31 matches found!
node 2 checked!...34 matches found!
node 3 checked!...41 matches found!
node 4 checked!...39 matches found!
node 5 checked!...40 matches found!
node 6 checked!...35 matches found!
node 7 checked!...36 matches found!
node 8 checked!...42 matches found!
node 9 checked!...30 matches found!
node 10 checked!...36 matches found!
node 11 checked!...39 matches found!
node 12 checked!...38 matches found!
node 13 checked!...41 matches found!
node 14 checked!...34 matches found!
node 15 checked!...33 matches found!
node 16 checked!...39 matches found!
node 17 checked!...37 matches found!
node 18 checked!...39 matches found!
node 19 checked!...38 matches found!
node 20 checked!...33 matches found!
node 21 checked!...39 matches found!
node 22 checked!...42 matches found!
node 23 checked!...43 matches found!
node 24 checked!...37 matches found!
node 25 checked!...38 matches found!
node 26 checked!...41 matches found!
node 27 checked!...39 matches found!
node 28 checked!...39 matches found!
node 29 checked!...38 matches found!
node 30 checked!...39 matches found!
```

Voting array

```
-----
[31 34 41 39 40 35 36 42 30 36 39 38 41 34 33 39 37 39 38 33 39 42 43 37 38
 41 39 39 38 39]
```

Putative nodes

```
-----
[26 13 22  8 23]
```

Best matching node from voting array

```
-----
23
```

Presence of query node in putative nodes

```
-----
Absent
```

Node 10 testing completed!

Node 11 -> query image 1

```
-----
```

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
```

```
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 11 testing completed!

Node 12 -> query image 1

91 features detected!

Checking for matches...

```
node 1 checked!...30 matches found!
node 2 checked!...28 matches found!
node 3 checked!...33 matches found!
node 4 checked!...34 matches found!
node 5 checked!...33 matches found!
node 6 checked!...27 matches found!
node 7 checked!...27 matches found!
node 8 checked!...33 matches found!
node 9 checked!...24 matches found!
node 10 checked!...27 matches found!
node 11 checked!...30 matches found!
node 12 checked!...33 matches found!
node 13 checked!...34 matches found!
node 14 checked!...35 matches found!
node 15 checked!...28 matches found!
node 16 checked!...36 matches found!
node 17 checked!...36 matches found!
node 18 checked!...28 matches found!
```

```
node 19 checked!...26 matches found!
node 20 checked!...29 matches found!
node 21 checked!...32 matches found!
node 22 checked!...31 matches found!
node 23 checked!...37 matches found!
node 24 checked!...35 matches found!
node 25 checked!...31 matches found!
node 26 checked!...35 matches found!
node 27 checked!...29 matches found!
node 28 checked!...33 matches found!
node 29 checked!...27 matches found!
node 30 checked!...37 matches found!
```

Voting array

```
-----
[30 28 33 34 33 27 27 33 24 27 30 33 34 35 28 36 36 28 26 29 32 31 37 35 31
 35 29 33 27 37]
```

Putative nodes

```
-----
[26 16 17 23 30]
```

Best matching node from voting array

```
-----
23
```

Presence of query node in putative nodes

```
-----
Absent
```

Node 12 testing completed!

Node 13 -> query image 1

```
-----
```

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
```

```
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 13 testing completed!

Node 14 -> query image 1

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 14 testing completed!

Node 15 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 15 testing completed!

Node 16 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!

```
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 16 testing completed!

Node 17 -> query image 1

100 features detected!

Checking for matches...

```
node 1 checked!...36 matches found!
node 2 checked!...34 matches found!
node 3 checked!...32 matches found!
node 4 checked!...38 matches found!
node 5 checked!...36 matches found!
node 6 checked!...36 matches found!
node 7 checked!...38 matches found!
node 8 checked!...42 matches found!
node 9 checked!...34 matches found!
node 10 checked!...36 matches found!
node 11 checked!...31 matches found!
node 12 checked!...32 matches found!
node 13 checked!...35 matches found!
node 14 checked!...33 matches found!
node 15 checked!...34 matches found!
node 16 checked!...38 matches found!
node 17 checked!...38 matches found!
node 18 checked!...33 matches found!
node 19 checked!...35 matches found!
```

```
node 20 checked!...34 matches found!
node 21 checked!...37 matches found!
node 22 checked!...34 matches found!
node 23 checked!...38 matches found!
node 24 checked!...39 matches found!
node 25 checked!...32 matches found!
node 26 checked!...34 matches found!
node 27 checked!...35 matches found!
node 28 checked!...35 matches found!
node 29 checked!...31 matches found!
node 30 checked!...36 matches found!
```

Voting array

```
-----
[36 34 32 38 36 36 38 42 34 36 31 32 35 33 34 38 38 33 35 34 37 34 38 39 32
 34 35 35 31 36]
```

Putative nodes

```
-----
[ 7 23 16 24  8]
```

Best matching node from voting array

```
-----
8
```

Presence of query node in putative nodes

```
-----
Absent
```

Node 17 testing completed!

Node 18 -> query image 1

```
-----
```

100 features detected!

Checking for matches...

```
node 1 checked!...29 matches found!
node 2 checked!...32 matches found!
node 3 checked!...33 matches found!
node 4 checked!...42 matches found!
node 5 checked!...36 matches found!
node 6 checked!...31 matches found!
node 7 checked!...34 matches found!
node 8 checked!...33 matches found!
node 9 checked!...31 matches found!
node 10 checked!...35 matches found!
node 11 checked!...32 matches found!
node 12 checked!...31 matches found!
node 13 checked!...35 matches found!
node 14 checked!...37 matches found!
node 15 checked!...36 matches found!
node 16 checked!...33 matches found!
node 17 checked!...29 matches found!
node 18 checked!...34 matches found!
node 19 checked!...31 matches found!
node 20 checked!...28 matches found!
node 21 checked!...31 matches found!
node 22 checked!...33 matches found!
```

```
node 23 checked!...36 matches found!
node 24 checked!...36 matches found!
node 25 checked!...28 matches found!
node 26 checked!...32 matches found!
node 27 checked!...34 matches found!
node 28 checked!...33 matches found!
node 29 checked!...33 matches found!
node 30 checked!...34 matches found!
```

Voting array

```
-----
[29 32 33 42 36 31 34 33 31 35 32 31 35 37 36 33 29 34 31 28 31 33 36 36 28
 32 34 33 33 34]
```

Putative nodes

```
-----
[23 15 24  4 14]
```

Best matching node from voting array

```
-----
4
```

Presence of query node in putative nodes

```
-----
Absent
```

Node 18 testing completed!

Node 19 -> query image 1

```
-----
```

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
```



```
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 19 testing completed!

Node 20 -> query image 1

101 features detected!

Checking for matches...

```
node 1 checked!...32 matches found!
node 2 checked!...36 matches found!
node 3 checked!...42 matches found!
node 4 checked!...39 matches found!
node 5 checked!...38 matches found!
node 6 checked!...35 matches found!
node 7 checked!...35 matches found!
node 8 checked!...40 matches found!
node 9 checked!...32 matches found!
node 10 checked!...36 matches found!
node 11 checked!...38 matches found!
node 12 checked!...37 matches found!
node 13 checked!...38 matches found!
node 14 checked!...41 matches found!
node 15 checked!...35 matches found!
node 16 checked!...38 matches found!
node 17 checked!...43 matches found!
node 18 checked!...36 matches found!
node 19 checked!...35 matches found!
node 20 checked!...38 matches found!
node 21 checked!...37 matches found!
node 22 checked!...39 matches found!
node 23 checked!...42 matches found!
node 24 checked!...45 matches found!
node 25 checked!...32 matches found!
node 26 checked!...35 matches found!
node 27 checked!...35 matches found!
node 28 checked!...38 matches found!
node 29 checked!...32 matches found!
node 30 checked!...39 matches found!
```

Voting array

```
-----
[32 36 42 39 38 35 35 40 32 36 38 37 38 41 35 38 43 36 35 38 37 39 42 45 32
 35 35 38 32 39]
```

Putative nodes

```
-----
[14 23 3 17 24]
```

Best matching node from voting array

24

Presence of query node in putative nodes

Absent

Node 20 testing completed!

Node 21 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 21 testing completed!

Node 22 -> query image 1

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 22 testing completed!

Node 23 -> query image 1

100 features detected!

Checking for matches...

```
node 1 checked!...33 matches found!
node 2 checked!...32 matches found!
node 3 checked!...36 matches found!
node 4 checked!...43 matches found!
node 5 checked!...36 matches found!
node 6 checked!...33 matches found!
node 7 checked!...29 matches found!
node 8 checked!...38 matches found!
node 9 checked!...32 matches found!
node 10 checked!...40 matches found!
node 11 checked!...32 matches found!
```

```
node 12 checked!...41 matches found!
node 13 checked!...41 matches found!
node 14 checked!...36 matches found!
node 15 checked!...34 matches found!
node 16 checked!...38 matches found!
node 17 checked!...42 matches found!
node 18 checked!...37 matches found!
node 19 checked!...39 matches found!
node 20 checked!...35 matches found!
node 21 checked!...42 matches found!
node 22 checked!...39 matches found!
node 23 checked!...35 matches found!
node 24 checked!...37 matches found!
node 25 checked!...34 matches found!
node 26 checked!...41 matches found!
node 27 checked!...36 matches found!
node 28 checked!...44 matches found!
node 29 checked!...34 matches found!
node 30 checked!...38 matches found!
```

Voting array

```
-----
[33 32 36 43 36 33 29 38 32 40 32 41 41 36 34 38 42 37 39 35 42 39 35 37 34
 41 36 44 34 38]
```

Putative nodes

```
-----
[26 17 28 21  4]
```

Best matching node from voting array

```
-----
28
```

Presence of query node in putative nodes

```
-----
Absent
```

Node 23 testing completed!

Node 24 -> query image 1

```
-----
```

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
```

```
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

```
Node 24 testing completed!
```

```
Node 25 -> query image 1
```

97 features detected!

Checking for matches...

```
node 1 checked!...35 matches found!
node 2 checked!...37 matches found!
node 3 checked!...36 matches found!
node 4 checked!...44 matches found!
node 5 checked!...40 matches found!
node 6 checked!...39 matches found!
node 7 checked!...36 matches found!
node 8 checked!...38 matches found!
node 9 checked!...33 matches found!
node 10 checked!...32 matches found!
node 11 checked!...35 matches found!
node 12 checked!...34 matches found!
node 13 checked!...38 matches found!
node 14 checked!...33 matches found!
node 15 checked!...32 matches found!
node 16 checked!...38 matches found!
node 17 checked!...38 matches found!
node 18 checked!...34 matches found!
node 19 checked!...32 matches found!
node 20 checked!...31 matches found!
node 21 checked!...38 matches found!
node 22 checked!...38 matches found!
node 23 checked!...44 matches found!
node 24 checked!...39 matches found!
node 25 checked!...39 matches found!
node 26 checked!...41 matches found!
node 27 checked!...36 matches found!
node 28 checked!...36 matches found!
node 29 checked!...35 matches found!
```

node 30 checked!...39 matches found!

Voting array

[35 37 36 44 40 39 36 38 33 32 35 34 38 33 32 38 38 34 32 31 38 38 44 39 39
41 36 36 35 39]

Putative nodes

[24 5 26 23 4]

Best matching node from voting array

4

Presence of query node in putative nodes

Absent

Node 25 testing completed!

Node 26 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

Unable to predict a matching node and putative nodes!

```
Node 26 testing completed!
```

```
Node 27 -> query image 1
```

98 features detected!

Checking for matches...

```
node 1 checked!...34 matches found!
node 2 checked!...39 matches found!
node 3 checked!...41 matches found!
node 4 checked!...41 matches found!
node 5 checked!...41 matches found!
node 6 checked!...36 matches found!
node 7 checked!...34 matches found!
node 8 checked!...38 matches found!
node 9 checked!...31 matches found!
node 10 checked!...35 matches found!
node 11 checked!...36 matches found!
node 12 checked!...34 matches found!
node 13 checked!...39 matches found!
node 14 checked!...41 matches found!
node 15 checked!...32 matches found!
node 16 checked!...36 matches found!
node 17 checked!...40 matches found!
node 18 checked!...37 matches found!
node 19 checked!...37 matches found!
node 20 checked!...38 matches found!
node 21 checked!...41 matches found!
node 22 checked!...37 matches found!
node 23 checked!...40 matches found!
node 24 checked!...38 matches found!
node 25 checked!...33 matches found!
node 26 checked!...34 matches found!
node 27 checked!...35 matches found!
node 28 checked!...33 matches found!
node 29 checked!...34 matches found!
node 30 checked!...39 matches found!
```

Voting array

[34 39 41 41 41 36 34 38 31 35 36 34 39 41 32 36 40 37 37 38 41 37 40 38 33
34 35 33 34 39]

Putative nodes

[3 21 4 5 14]

Best matching node from voting array

3

Presence of query node in putative nodes

Absent

Node 27 testing completed!

Node 28 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 28 testing completed!

Node 29 -> query image 1

0 features detected!

Checking for matches...

node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!


```
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!
```

Voting array

```
-----
[0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0]
```

Unable to predict a matching node and putative nodes!

Node 29 testing completed!

Node 30 -> query image 1

```
-----
```

0 features detected!

Checking for matches...

```
node 1 checked!...0 matches found!
node 2 checked!...0 matches found!
node 3 checked!...0 matches found!
node 4 checked!...0 matches found!
node 5 checked!...0 matches found!
node 6 checked!...0 matches found!
node 7 checked!...0 matches found!
node 8 checked!...0 matches found!
node 9 checked!...0 matches found!
node 10 checked!...0 matches found!
node 11 checked!...0 matches found!
node 12 checked!...0 matches found!
node 13 checked!...0 matches found!
node 14 checked!...0 matches found!
node 15 checked!...0 matches found!
node 16 checked!...0 matches found!
node 17 checked!...0 matches found!
node 18 checked!...0 matches found!
```

node 19 checked!...0 matches found!
node 20 checked!...0 matches found!
node 21 checked!...0 matches found!
node 22 checked!...0 matches found!
node 23 checked!...0 matches found!
node 24 checked!...0 matches found!
node 25 checked!...0 matches found!
node 26 checked!...0 matches found!
node 27 checked!...0 matches found!
node 28 checked!...0 matches found!
node 29 checked!...0 matches found!
node 30 checked!...0 matches found!

Voting array

[0 0]

Unable to predict a matching node and putative nodes!

Node 30 testing completed!

Results

Performance criteria

Node	Presence(%)	Accuracy(%)	Precision	Recall	Specificity	F1 Score
1	0.0	96.7	nan	0.0	0.0	1.0
2	0.0	96.7	nan	0.0	0.0	1.0
3	0.0	93.3	0.0	0.0	0.0	0.966
4	0.0	90.0	0.0	0.0	0.0	0.931
5	100.0	96.7	nan	0.0	0.0	1.0
6	0.0	96.7	nan	0.0	0.0	1.0
7	0.0	96.7	nan	0.0	0.0	1.0
8	0.0	93.3	0.0	0.0	0.0	0.966
9	0.0	96.7	nan	0.0	0.0	1.0
10	0.0	96.7	nan	0.0	0.0	1.0
11	0.0	96.7	nan	0.0	0.0	1.0
12	0.0	96.7	nan	0.0	0.0	1.0
13	0.0	93.3	0.0	0.0	0.0	0.966
14	0.0	96.7	nan	0.0	0.0	1.0
15	0.0	96.7	nan	0.0	0.0	1.0
16	0.0	96.7	nan	0.0	0.0	1.0
17	0.0	93.3	0.0	0.0	0.0	0.966
18	0.0	96.7	nan	0.0	0.0	1.0
19	0.0	96.7	nan	0.0	0.0	1.0
20	0.0	96.7	nan	0.0	0.0	1.0
21	0.0	96.7	nan	0.0	0.0	1.0
22	0.0	96.7	nan	0.0	0.0	1.0
23	0.0	90.0	0.0	0.0	0.0	0.931
24	0.0	86.7	0.0	0.0	0.0	0.897
25	0.0	96.7	nan	0.0	0.0	1.0
26	0.0	96.7	nan	0.0	0.0	1.0
27	0.0	96.7	nan	0.0	0.0	1.0
28	0.0	93.3	0.0	0.0	0.0	0.966
29	0.0	96.7	nan	0.0	0.0	1.0
30	0.0	96.7	nan	0.0	0.0	1.0

Confusion Matrix

[illegible]

Presence/Absence matrix

[illegible]

```
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.
  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  1.]
[ 0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.
  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.  0.]
```

Time elapsed = 31.4 min (0.5 h)