

## Algorithm : Tarjans Algorithm to find Articulation Point

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### 1) Example 1

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> gcc Tarjans3.c
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
No. of vertices :6
No. of edges :7
Edge 1 :0 1
Edge 2 :0 3
Edge 3 :1 2
Edge 4 :3 2
Edge 5 :2 4
Edge 6 :2 5
Edge 7 :4 5
```

Articulation points are :

Vertex 2

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
```

No. of vertices :8

No. of edges :9

Edge 1 :0 1

Edge 2 :0 2

Edge 3 :1 3

Edge 4 :2 3

Edge 5 :3 4

Edge 6 :3 5

Edge 7 :4 5

Edge 8 :2 6

Edge 9 :2 7

Articulation points are :

Vertex 2

Vertex 3

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> █
```

## 2) Example 2

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> gcc Tarjans.c
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
No. of vertices :7
No. of edges :9
Edge 1 :0 1
Edge 2 :0 2
Edge 3 :1 3
Edge 4 :2 3
Edge 5 :3 4
Edge 6 :2 4
Edge 7 :4 5
Edge 8 :4 6
Edge 9 :5 6

Articulation points are :

Vertex 4
```

## 3) Example 3

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
No. of vertices :6
No. of edges :7
Edge 1 :0 1
Edge 2 :0 3
Edge 3 :1 2
Edge 4 :3 2
Edge 5 :2 4
Edge 6 :2 5
Edge 7 :4 5

Articulation points are :

Vertex 2
```

## 4) Example 4

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
No. of vertices :4
No. of edges :3
Edge 1 :0 1
Edge 2 :1 2
Edge 3 :2 3

Articulation points are :

Vertex 1
Vertex 2
```

### 5) Example 5

```
PS C:\Users\sansk\Desktop\Sanskriti\College\GraphTheory\Tarjans> ./a.exe
No. of vertices :7
No. of edges :8
Edge 1 :0 1
Edge 2 :0 2
Edge 3 :1 2
Edge 4 :1 6
Edge 5 :1 3
Edge 6 :1 4
Edge 7 :3 5
Edge 8 :4 5

Articulation points are :
Vertex 1
```