Uniform Search

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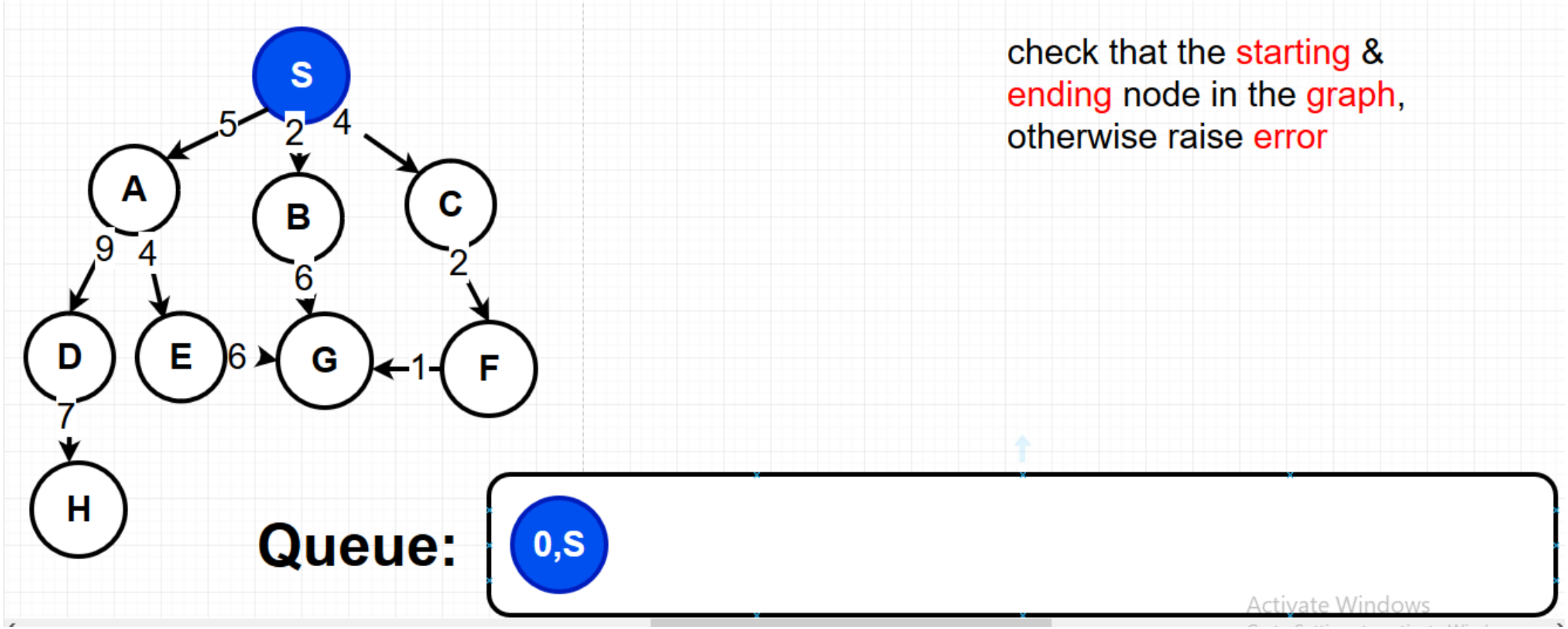
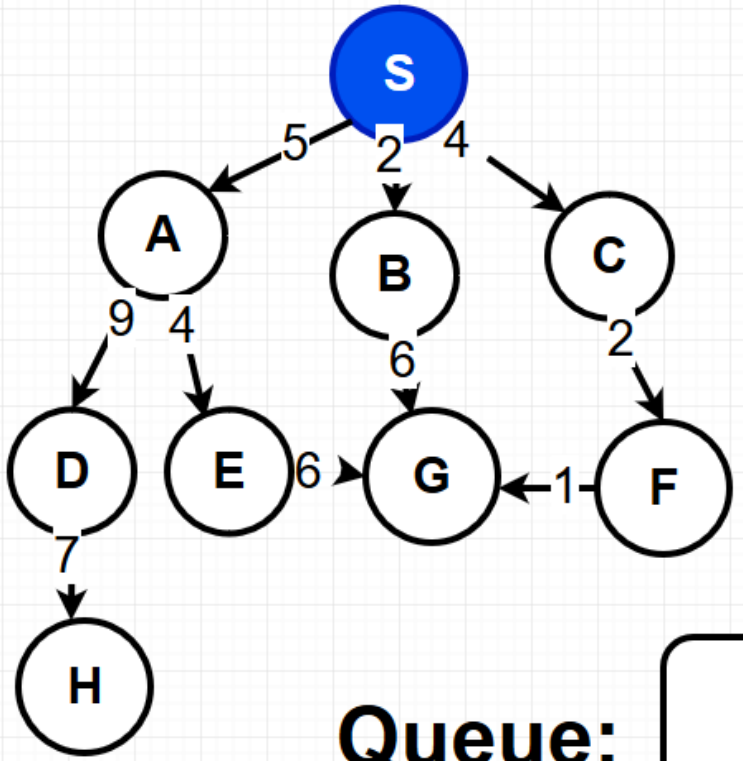
Uniform Search



Uniform Search



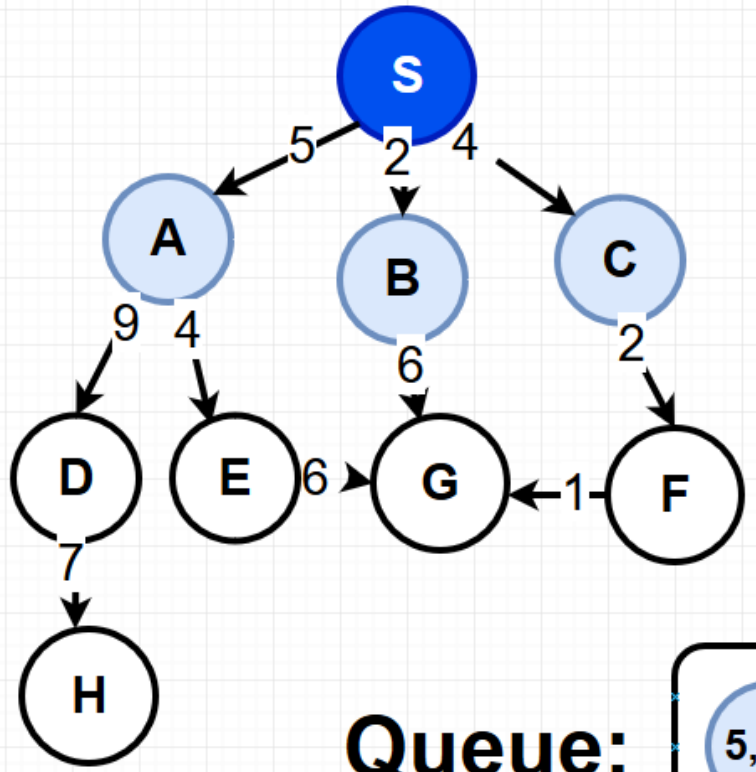
node = 0,S

current = S
cost = 0

```
if end in node[1]:
        print("Path found: ")
        break
```

Queue:

Uniform Search



node = 0,S

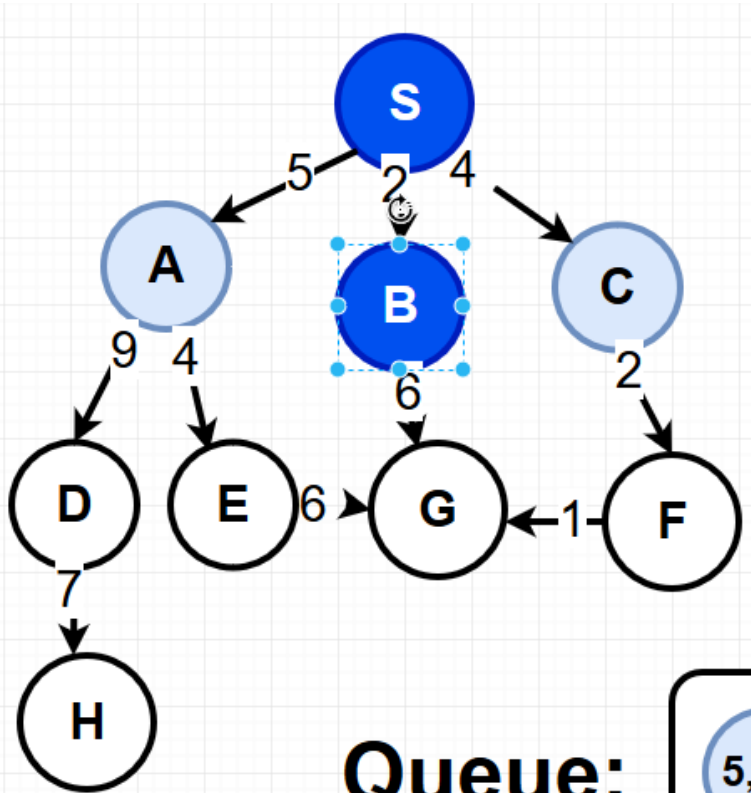
current = S
cost = 0

child A, path = ['S', 'A']
child B, path = ['S', 'B']
child C, path = ['S', 'C']
queue.put((cost + graph[current][child], path))

Queue:

5,SA 2,SB 4,SC

Uniform Search



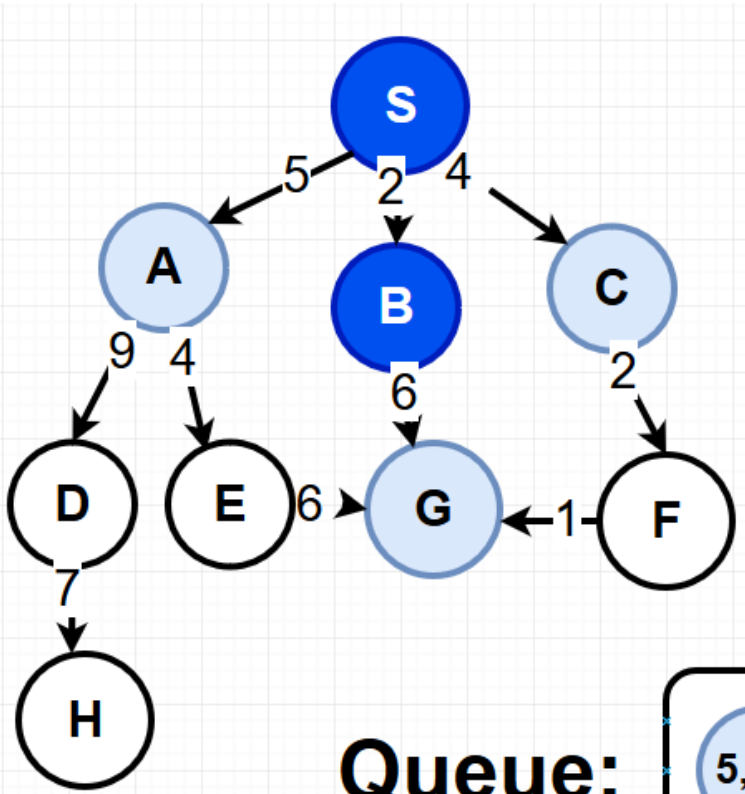
node = 2,SB

current = SB
cost = 2

```
if end in node[1]:
        print("Path found: ")
        break
```

Queue: 5,SA 4,SC

Uniform Search



node = 2,SB

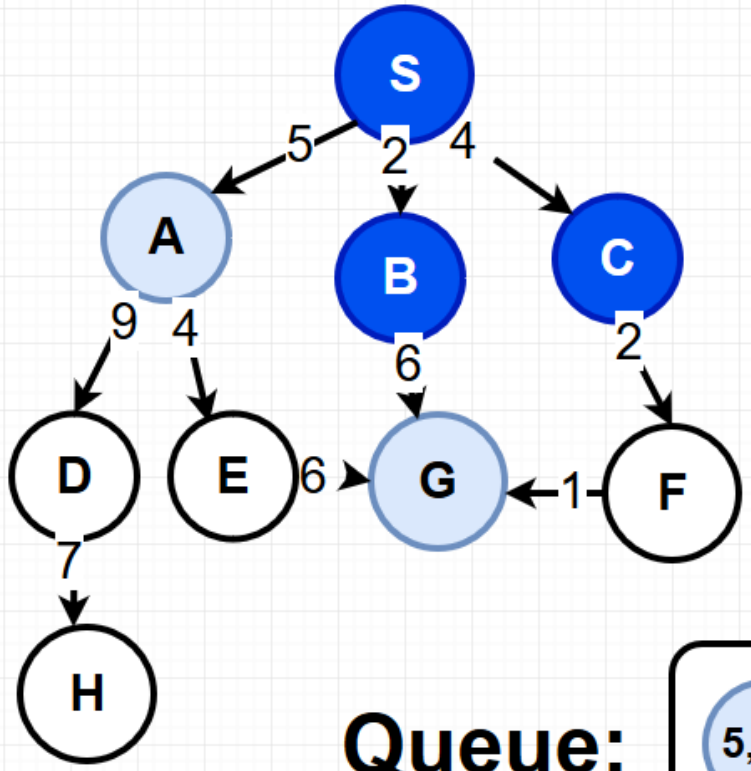
current = SB
cost = 2

child G, path = ['S', 'B', 'G']
queue.put((cost + graph[current][child], path))

Queue:

5,SA | 4,SC | 8,SBG

Uniform Search



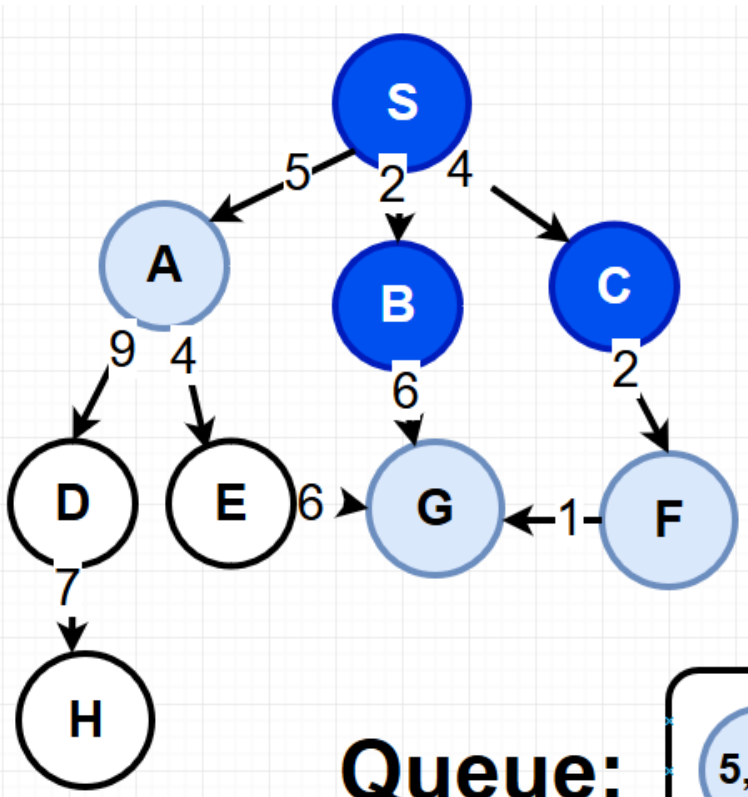
node = 4,SC

current = SC
cost = 4

```
if end in node[1]:
        print("Path found: ")
        break
```

Queue: 5,SA 8,SBG

Uniform Search



node = 4,SC

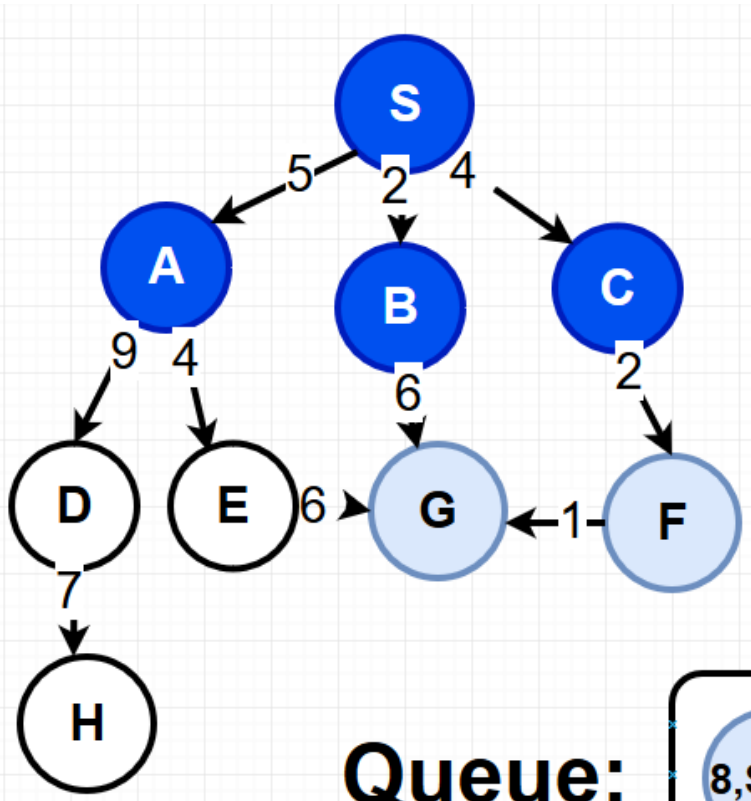
current = SC
cost = 4

child F, path = ['S', 'C', 'F']
queue.put((cost + graph[current][child], path))

Queue:

5,SA 8,SBG 6,SCF

Uniform Search



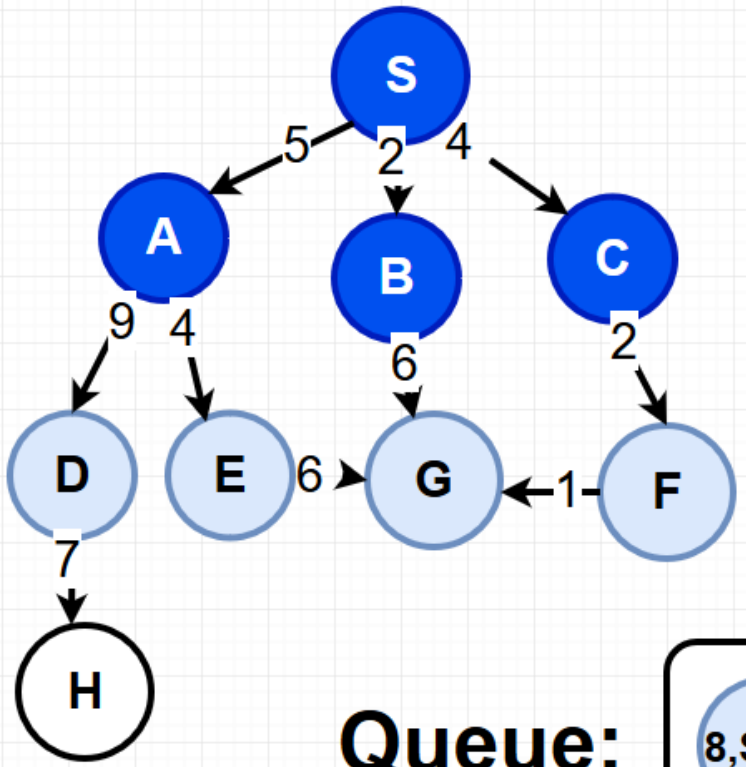
node = 5,SA

current = SA
cost = 5

```
if end in node[1]:
        print("Path found: ")
        break
```

Queue: 8,SBG 6,SCF

Uniform Search



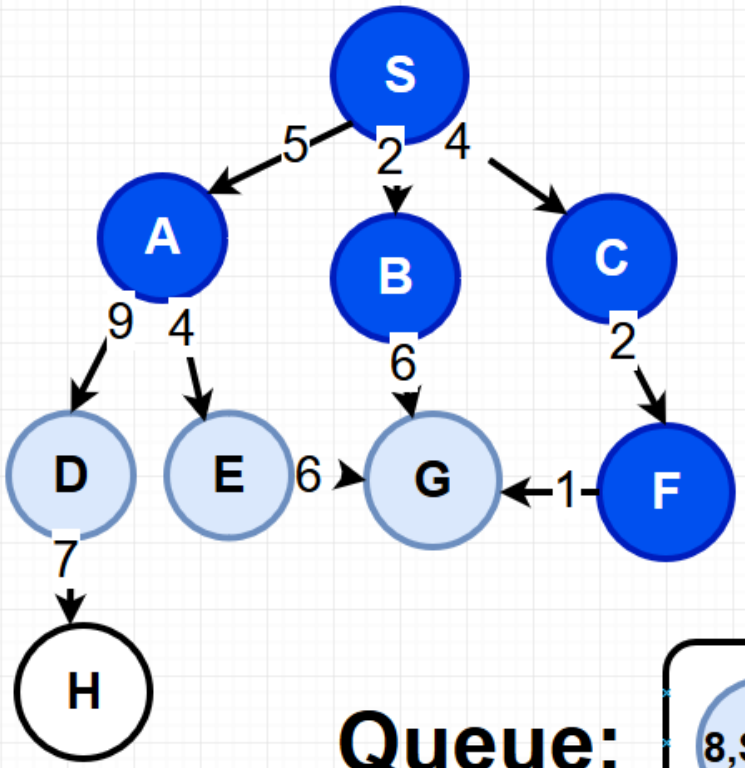
node = 5,SA

current = SA
cost = 5

child D, path = ['S', 'A','D']
child E, path = ['S', 'A','E']
queue.put((cost + graph[current][child], path))

Queue: 8,SBG 6,SCF 14,SAD 9,SAE

Uniform Search



node = 6,SCF

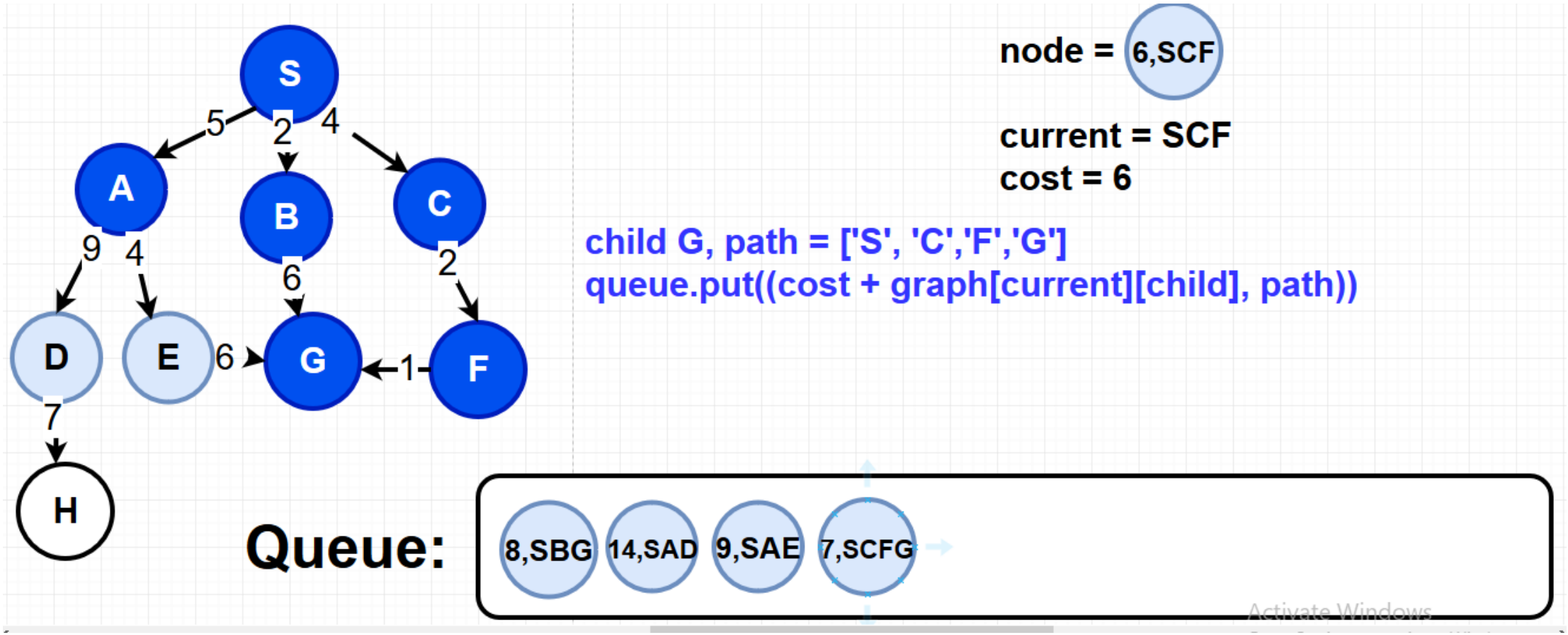
current = SCF

cost = 6

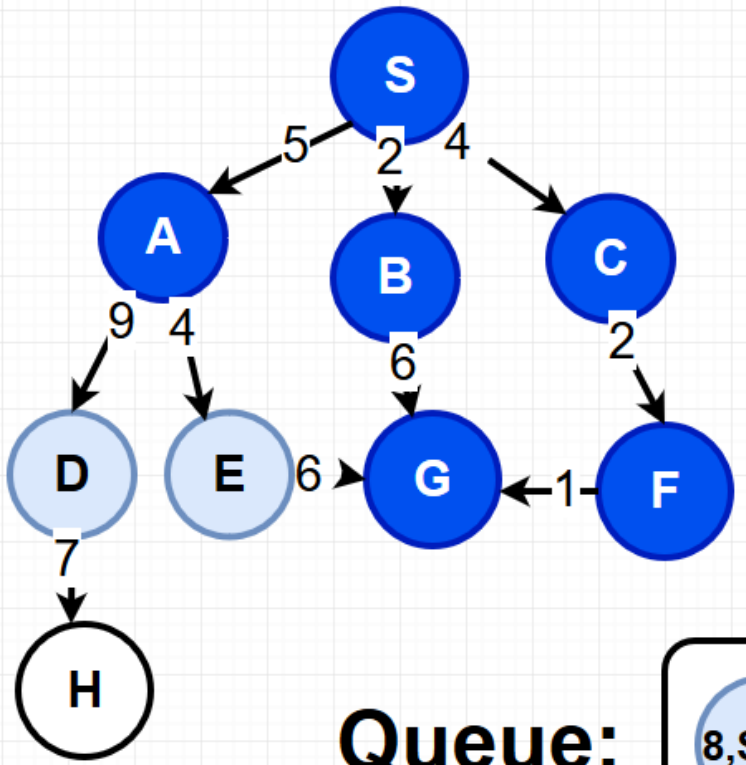
```
if end in node[1]:
        print("Path found: ")
        break
```

Queue: 8,SBG 14,SAD 9,SAE

Uniform Search



Uniform Search



node = 7,SCFG

current = SCFG

cost = 7

```
if end in node[1]:
        print("Path found: ")
        break
```

Queue: 8,SBG 14,SAD 9,SAE