

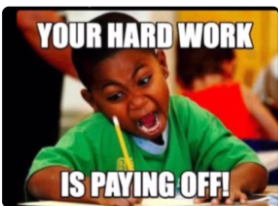
Graph Concepts &



Qns



Facebook
Instagram } → code story with MIK
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code story with MIK → 



Motivation:- 2025 is knocking at the door.

Are you ready to open it with your hard work???

Every hour you grind today is an opportunity
waiting to unfold tomorrow.

Let's make 2025 the year where your



MIK.

preparation turns into achievement, your struggles into strength, and your dreams into reality.

Pre-requisite → Part-1 & Part-2



EULER HTS

PART-

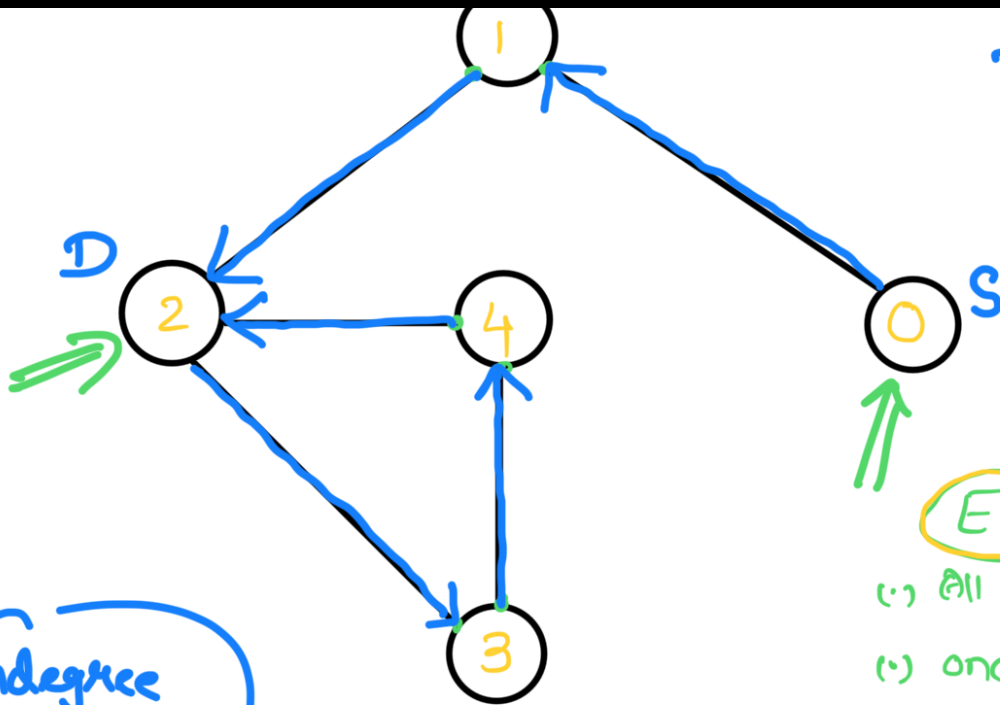


Till now in Part-1 & Part-2 we studied Euler about undirected Graph. ⇐

Here are few things you must know

for understanding Euler in Directed Graphs.

Directed.



EP Directed graph

- (i) All edges visited ✓
- (ii) once. ✓

| | 0 ^S | 1 | 2 ^D | 3 | 4 |
|-----------|----------------|---|----------------|---|---|
| indegree | 0 | 1 | 2 | 1 | 1 |
| outdegree | 1 | 1 | 1 | 1 | 1 |

Source

$$\text{outdegree}[\text{node}] - \text{indegree}[\text{node}] = 1$$

Dest

$$\text{indegree}[\text{node}] - \text{outdegree}[\text{node}] = 1$$

Other nodes

$$\text{indegree}[\text{node}] == \text{outdegree}[\text{node}]$$

Finding Euler Path.

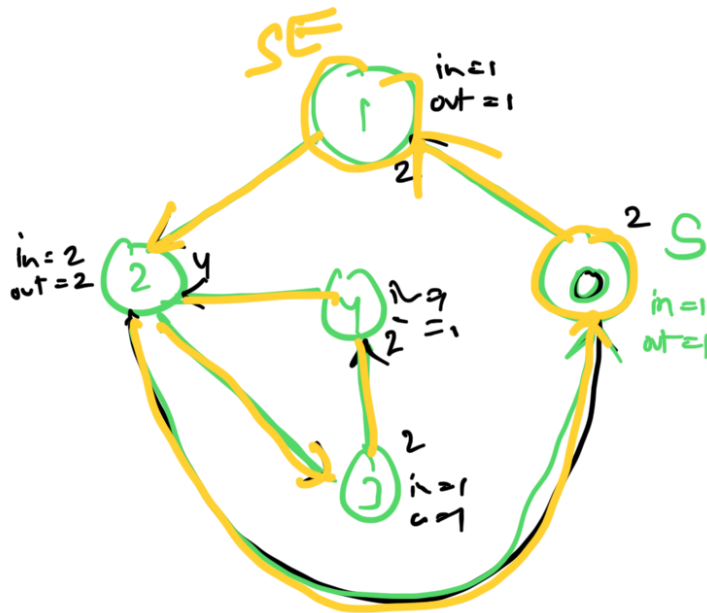
What you will do ???

① Find start node of Euler path.

```
if (outdegree[node] - indegree[node] == 1) {  
    startNode = node;  
}
```

② If all nodes have equal indegree and outdegree, what will that graph be called ???

& what will be the start node
of Euler Path ???



degree = even
"Eulerian Circuit"

$$indegree(node) == outdegree(node)$$

if it has Eulerian circuit, any node
can be starting point of the Euler path.

✓

$$indegree(node) == outdegree(node)$$