AI LAB TEST

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```
def _init_(self, vertices):
 # No. of vertices
  self.V = vertices

 # default dictionary to store graph
   self.graph = defaultdict(list)

# function to add an edge to graph
  def addEdge(self, u, v):
   self.graph[u].append(v)

# function to perform a Depth-Limited search
# from given source 'src'
def DLS (self, src, target, maxDepth):
 if src == target : return true
# if reached the maximum depth, stop recurring
  if maxDepth <= 0 : return False
# Recur for all the vertices adjacent to the vertex
  for i in self.graph [src] :
  if (self.DLS (i, target, maxDepth - 1)) :
  return True
  return False
 # IDDFS to search if target is reachable from v
 # It issues recursive DLS()
def IDDFS (self, src, target, maxDepth) :
# Repeatedly depth-limit search till the # maximum depth
 for i in range (maxDepth):
     if (self.DLS (src, target, i)):
      return True
      return False
```

Tayal