



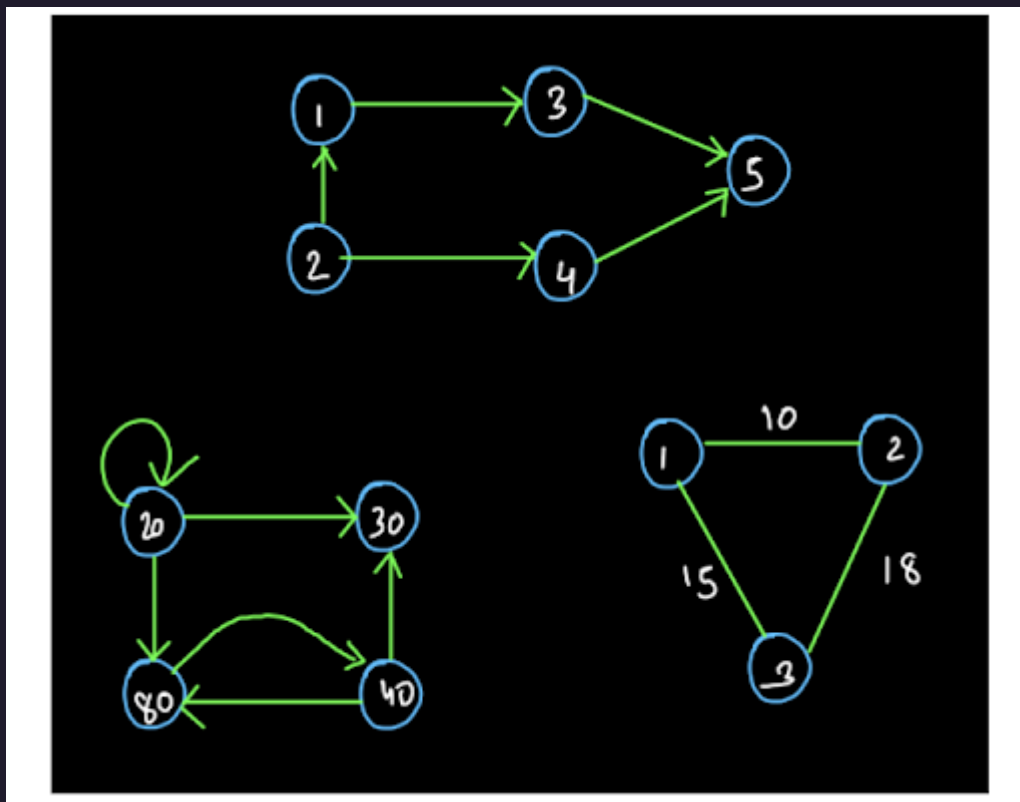
## Introduction To Graphs and its Representation

Welcome back, dear reader. So, how has your coding journey been so far? We hope it has been enjoyable. So, in this article we will introduce you to the most famous data structure as far as coding interviews and coding rounds of big companies are concerned i.e. the graph data structure. So, are you excited? We are too. So, let's get started.



## 1. PROBLEM DISCUSSION

What is a graph data structure? A graph is a set of vertices and edges.



So, we can define the graph  $G = (V, E)$  where  $V$  is the set of vertices and  $E$  is the set of edges. As in the above diagram, the circles in which the data is stored are the vertices of the graphs and the lines connecting them together are called edges of the graphs. Now the question arises if a graph is a set of vertices and edges then what can be the minimum number of vertices and edges a graph can have? See, a graph is a data structure. This means that it is

