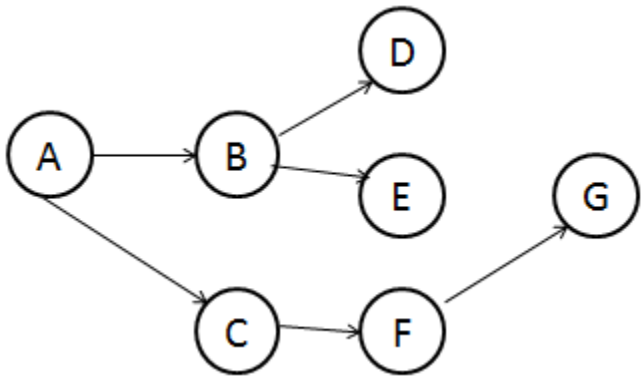
WIA1002 Data Structure
Lab 10: Graph

1. Create a program that generates the graph below. Then, create a method to find the path from A to G.



Example output:

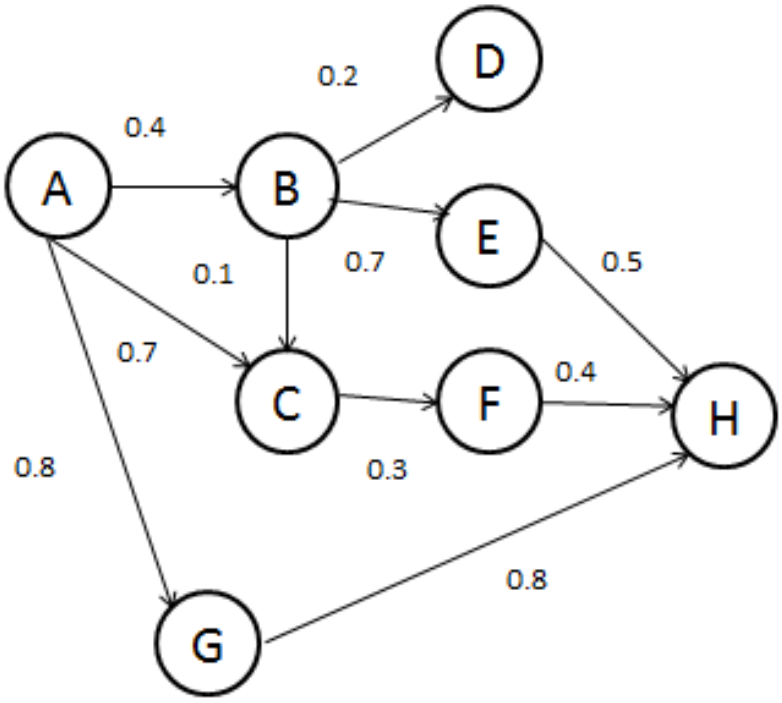
```
Creating a graph with 7 vertices and 6 edges
A -->
 -> B : 1 -> C : 1
B -->
 -> D : 1 -> E : 1
C -->
 -> F : 1
D -->

E -->
 -> G : 1
F -->

G -->

Find the path from A to G
The path is : A --> B --> E --> G -->
```

2. Create a program that generates the graph below.



Then, find the shortest path from A - H

(a) Distance – Number of Node
(b) Cost – Minimum weight

Example Output:

```
Creating a graph with 8 vertices and 10 edges
A -->
 -> B : 0.4 -> C : 0.7 -> G : 0.8
B -->
 -> C : 0.1 -> D : 0.2 -> E : 0.7
C -->
 -> F : 0.3
D -->

E -->
 -> H : 0.5
F -->
 -> H : 0.4
G -->
 -> H : 0.8
H -->

The shortest path from A - H by distance
A -> G -> H ->
The shortest path from A - H by cost
A -> B -> C -> F -> H ->
```