LAB#14

Example#1: Write a program to create an adjacency matrix for a graph. Also, create a function to add edges to the graph and another function to display the matrix.

Solution:

```
class Graph:
    def __init__(self,vn0):
        self.vertex_count=vn0
        self.matrix=[[0]*vn0 for e in range(vn0)]
    def add_edge(self,u,v,weight=1):
        if 0<=u<self.vertex_count and 0<=v<self.vertex_count:
            self.matrix[u][v]=weight
            self.matrix[v][u]=weight
        else:
            print("Invalid vertex")
    def print_matrix(self):
        for row in self.matrix:

            print(' '.join(map(str,row)) )


```

```
g=Graph(3)
g.add_edge(0,1)
g.add_edge(0,2)
g.add_edge(2,2)
g.print_matrix()
```

Result:

```
0 1 1
1 0 0
1 0 1
```

Class Assignment

Q.1: Modify Example #1 from LAB #14 by adding one more function to remove edges from the graph.