9.Write the python to implement Travelling Salesman Problem.

Program:

```
from sys import maxsize
from itertools import permutations
V = 4

def travellingSalesmanProblem(graph, s):
        vertex = []
        for i in range(V):
                if i != s:
                        vertex.append(i)

        min_path = maxsize
        next_permutation=permutations(vertex)
        for i in next_permutation:
                current_pathweight = 0
                k = s
                for j in i:
                        current_pathweight += graph[k][j]
                        k = j
                current_pathweight += graph[k][s]
                min_path = min(min_path, current_pathweight)
        return min_path
if __name__ == "__main__":
        graph = [[0, 10, 15, 20], [10, 0, 35, 25],
                        [15, 35, 0, 30], [20, 25, 30, 0]]
        s = 0
        print(travellingSalesmanProblem(graph, s))
```

OUTPUT: