Floyd warshall

```
V = 4
INF = float('inf')
graph = [
   [0, 3, INF, 7],
   [8, 0, 2, INF],
   [5, INF, 0, 1],
   [2, INF, INF, 0]
]


for k in range(V):
   for i in range(V):
      for j in range(V):
         if graph[i][k] + graph[k][j] < graph[i][j]:  # if shorter path found
            graph[i][j] = graph[i][k] + graph[k][j]


print("The all pair shortest paths are")
r = 1
for row in graph:
   c = 1
   for val in row:
      print(f"from {r}->{c} the distance is: {val}")
      c += 1
   r += 1
   print("*"*30)
```