WEEK 7

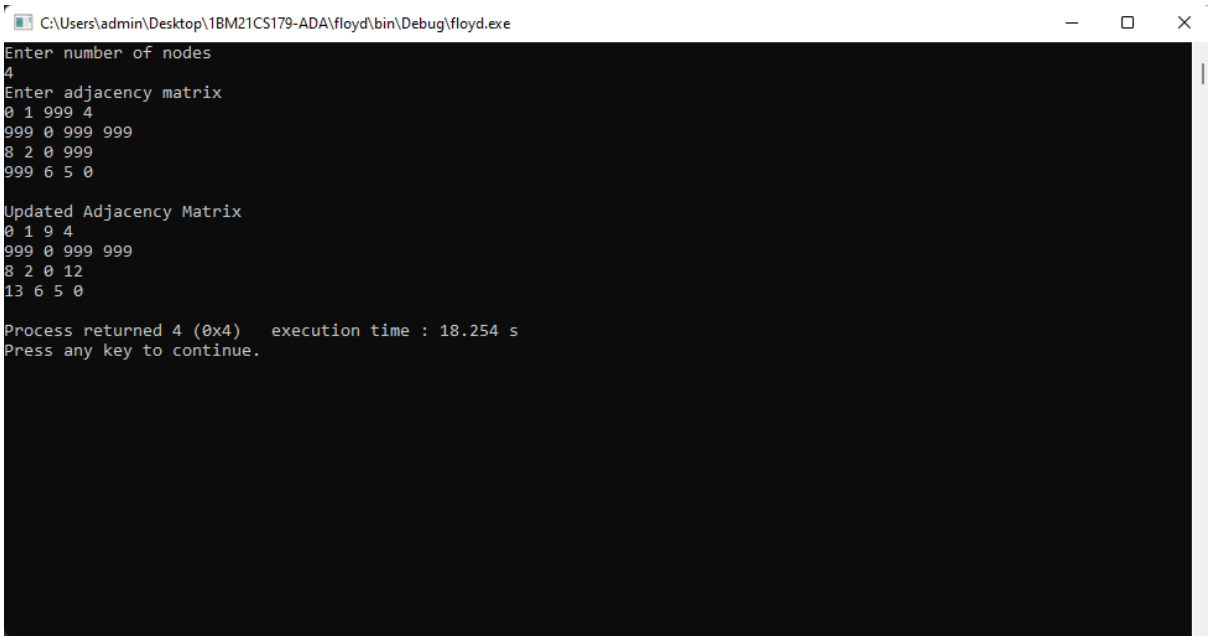
Implement All Pair Shortest paths problem using Floyd's algorithm.

Code :

```
#include<stdio.h>
void main()
{
   int i,j,k,n,adj[10][10],ori[10][10];
   printf("Enter number of nodes \n");
   scanf("%d",&n);
   printf("Enter adjacency matrix \n");
   for(i=0;i<n;i++)
   {
      for(j=0;j<n;j++)
      scanf("%d",&p[i][j]);
   }
   for(i=0;i<n;i++)
   for(j=0;j<n;j++)
   ori[i][j]=adj[i][j];
   for(k=0;k<n;k++)
   for(i=0;i<n;i++)
   for(j=0;j<n;j++)
   if(adj[i][j] > adj[k][j]+adj[i][k])
   adj[i][j]=adj[k][j]+adj[i][k];
   printf("\nUpdated Matrix \n");
   for(i=0;i<n;i++)
   {
      for(j=0;j<n;j++)
      printf("%d ",adj[i][j]);
   }
```

}

Output :


C:\Users\admin\Desktop\1BM21CS179-ADA\floyd\bin\Debug\floyd.exe
Enter number of nodes
4
Enter adjacency matrix
0 1 999 4
999 0 999 999
8 2 0 999
999 6 5 0
Updated Adjacency Matrix
0 1 9 4
999 0 999 999
8 2 0 12
13 6 5 0
Process returned 4 (0x4) execution time : 18.254 s
Press any key to continue.