ASSIGNMENT # 1

Name: Zahida Naz
Student ID: (62366)
Class ID: 103347

```
#include<iostream>
#include<vector>
#define NODE 4
using namespace std;

/* int graph[NODE][NODE] = {
   {0, 1, 1, 0},
   {0, 0, 1, 0},
   {1, 0, 0, 1},
   {0, 0, 0, 0}
}; */

int graph[NODE][NODE] = {
   {1, 1, 0, 1},
   {0, 1, 1, 0},
   {0, 0, 1, 1},
   {0, 0, 0, 1}
};

int result[NODE][NODE];

void transClosure() {
   for(int i = 0; i<NODE; i++)
      for(int j = 0; j<NODE; j++)
         result[i][j] = graph[i][j];
   for(int k = 0; k<NODE; k++)
      for(int i = 0; i<NODE; i++)
         for(int j = 0; j<NODE; j++)
            result[i][j] = result[i][j] || (result[i][k] && result[k][j]);
   for(int i = 0; i<NODE; i++) {
      for(int j = 0; j<NODE; j++)
         cout << result[i][j] << " ";
      cout << endl;
   }
}

int main() {
   transClosure();
}
```

ASSIGNMENT # 1