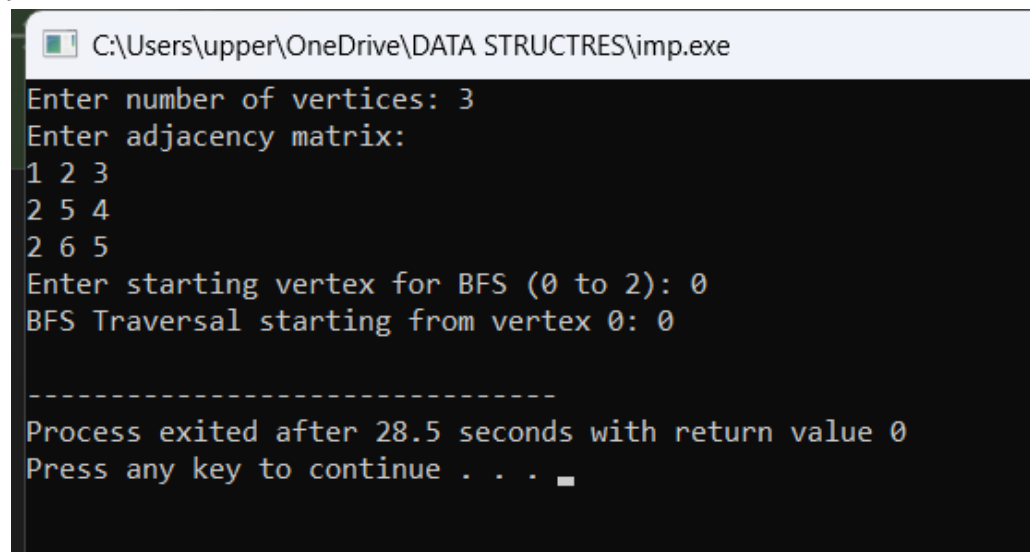


```

#include <stdio.h>
#define SIZE 20
int queue[SIZE], front = -1, rear = -1;
int visited[SIZE];
void enqueue(int vertex) {
    if (rear == SIZE - 1)
        return;
    if (front == -1)
        front = 0;
    queue[++rear] = vertex;
}
int dequeue() {
    if (front == -1 || front > rear)
        return -1;
    return queue[front++];
}
void BFS(int adjMatrix[SIZE][SIZE], int n, int start) {
    for (int i = 0; i < n; i++)
        visited[i] = 0;
    enqueue(start);
    visited[start] = 1;
    printf("BFS Traversal starting from vertex %d: ", start);
    while (front <= rear) {
        int current = dequeue();
        printf("%d ", current);
        for (int i = 0; i < n; i++) {
            if (adjMatrix[current][i] == 1 && !visited[i]) {
                enqueue(i);
                visited[i] = 1;
            }
        }
    }
    printf("\n");
}
int main() {
    int adjMatrix[SIZE][SIZE], n, start;
    printf("Enter number of vertices: ");
    scanf("%d", &n);
    printf("Enter adjacency matrix:\n");
    for (int i = 0; i < n; i++)
        for (int j = 0; j < n; j++)
            scanf("%d", &adjMatrix[i][j]);
    printf("Enter starting vertex for BFS (0 to %d): ", n - 1);
    scanf("%d", &start);
}

```

```
BFS(adjMatrix, n, start);  
return 0;  
}
```



The screenshot shows a Windows command prompt window with the title bar "C:\Users\upper\OneDrive\DATA STRUCTRES\imp.exe". The window has a black background with white text. The user has entered the number of vertices as 3, followed by an adjacency matrix with three rows: 1 2 3, 2 5 4, and 2 6 5. The starting vertex for BFS is 0. The output shows "BFS Traversal starting from vertex 0: 0". A dashed line separates the output from the process exit message. The process exited after 28.5 seconds with a return value of 0. The prompt asks to press any key to continue, with a cursor visible.

```
C:\Users\upper\OneDrive\DATA STRUCTRES\imp.exe  
Enter number of vertices: 3  
Enter adjacency matrix:  
1 2 3  
2 5 4  
2 6 5  
Enter starting vertex for BFS (0 to 2): 0  
BFS Traversal starting from vertex 0: 0  
  
-----  
Process exited after 28.5 seconds with return value 0  
Press any key to continue . . . █
```