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| 21) | Write a C program to Graph traversal using Breadth First Search  #include <stdio.h>  int n, i, j, visited[10], queue[10], front = -1, rear = -1;  int adj[10][10];  void bfs(int v)  {  for (i = 1; i <= n; i++)  if (adj[v][i] && !visited[i])  queue[++rear] = i;  if (front <= rear)  {  visited[queue[front]] = 1;  bfs(queue[front++]);  }  }  int main()  {  int v;  printf("Enter the number of vertices: ");  scanf("%d", &n);  for (i = 1; i <= n; i++)  {  queue[i] = 0;  visited[i] = 0;  }  printf("Enter graph data in matrix form: \n");  for (i = 1; i <= n; i++)  for (j = 1; j <= n; j++)  scanf("%d", &adj[i][j]);  printf("Enter the starting vertex: ");  scanf("%d", &v);  bfs(v);  printf("The node which are reachable are: \n");  for (i = 1; i <= n; i++)  if (visited[i])  printf("%d\t", i);  else  printf("BFS is not possible. Not all nodes are reachable");  return 0;  } |