**Data Structures and Algorithms**

**Lab Report**

**Lab06**



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| Group Members Name & Reg #: | **Muhammad Haris Irfan**  **(FA18-BCE-090)** |
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| Class | Data Structures and Algorithms CSC211 (**BCE-3B**) |
| Instructor’s Name | Dilshad Sabir |

**Pre-Lab Task**

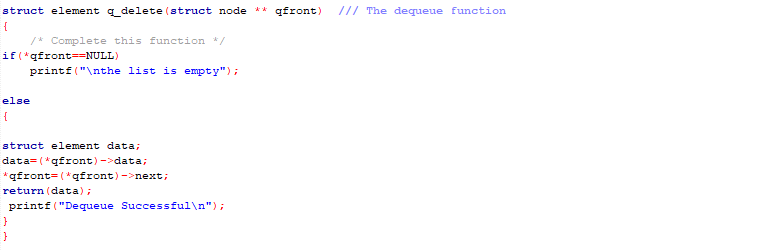
**Task:1**

**Complete the functions ‘enqueue ()’, ‘dequeue ()’ and peek () functions.**

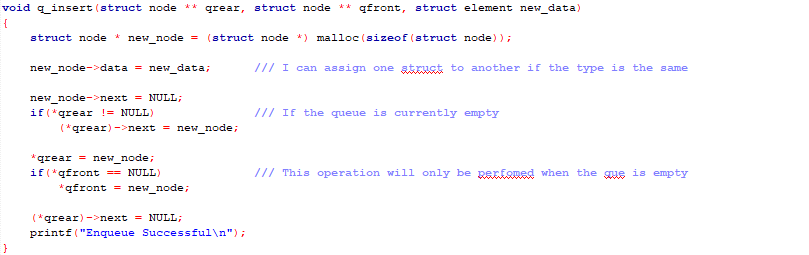
**Solution:**

The code is shown below,

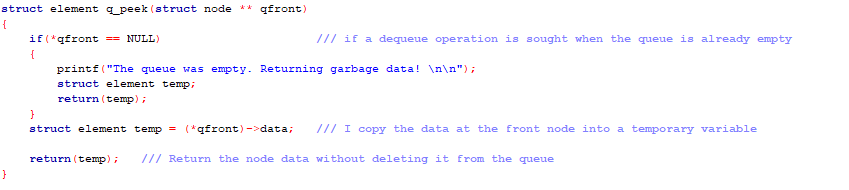
Dequeue Code:

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Enqueue Code:

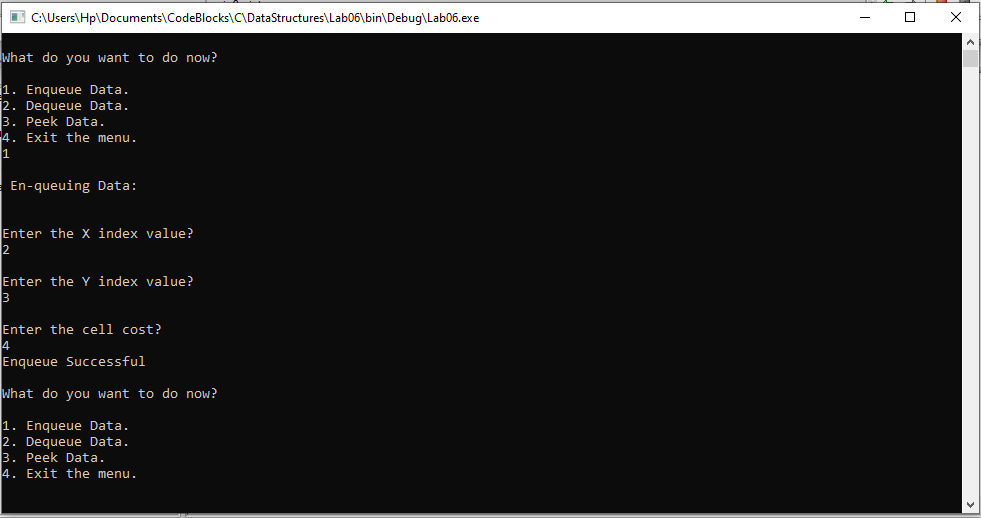
****

Peek Code:

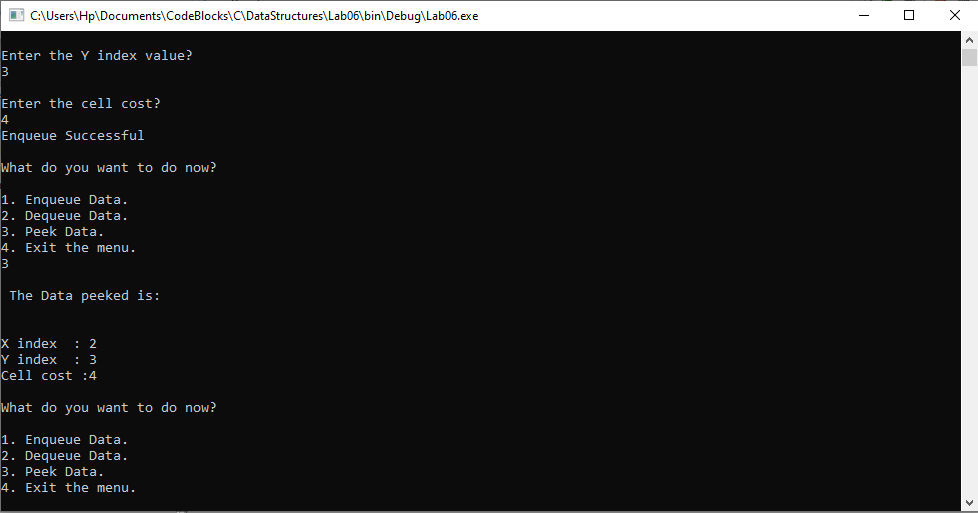
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The Result of the following code is attached below:

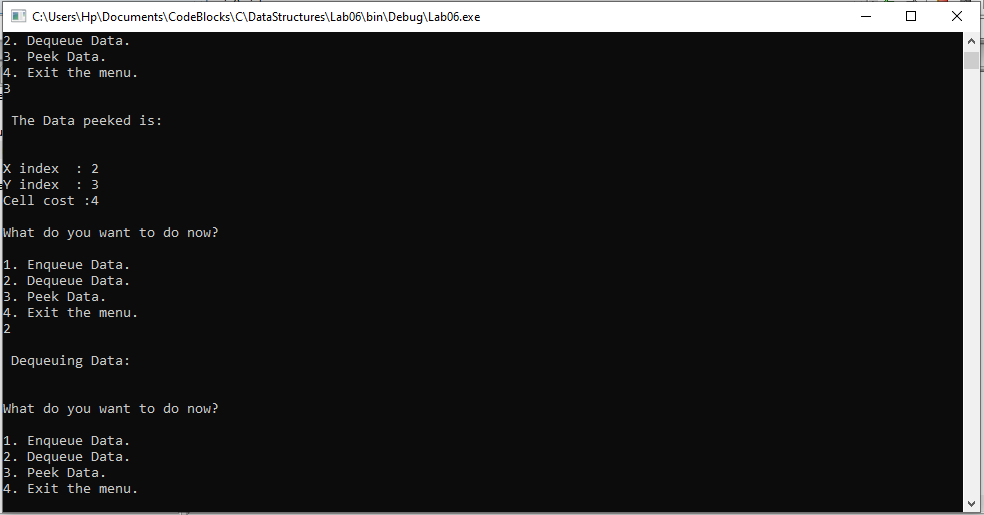
Enqueing:

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Peeking:



Dequeing:



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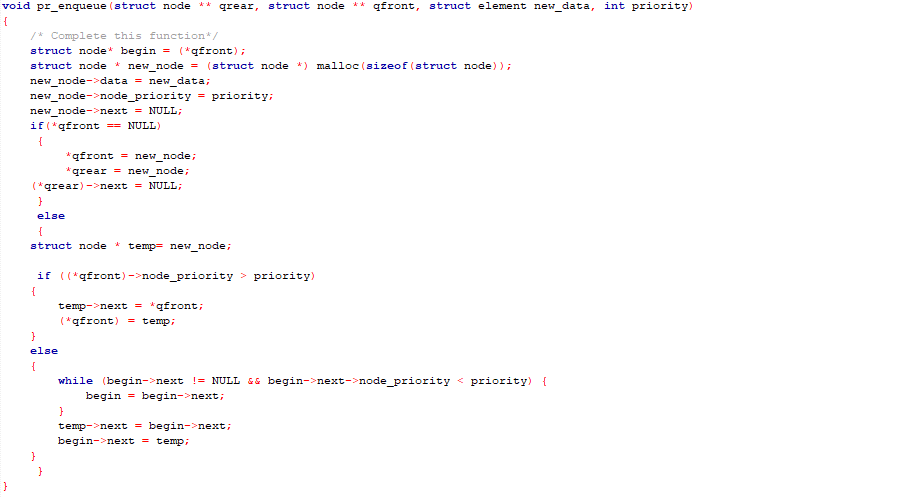
**In Lab Tasks**

**Task:1**

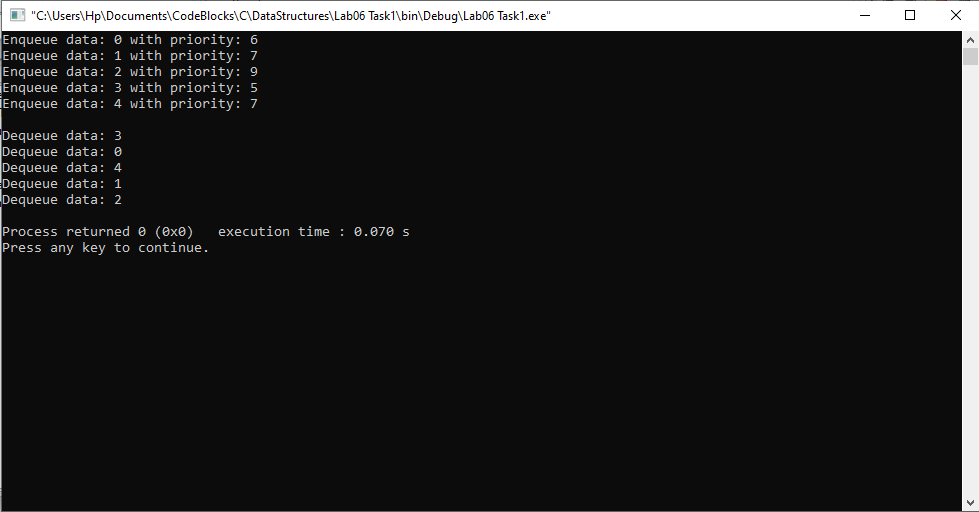
**Implement a priority queue. (Enqueue Function).**

**Solution:**

The code is shown below,



The Result of the following code is attached below:



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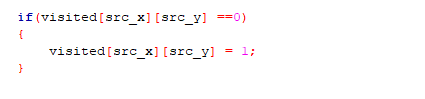
**Task:2**

**Find the Shortest Path in Graphs Using BFS and Queues. (Avoiding 1s)**

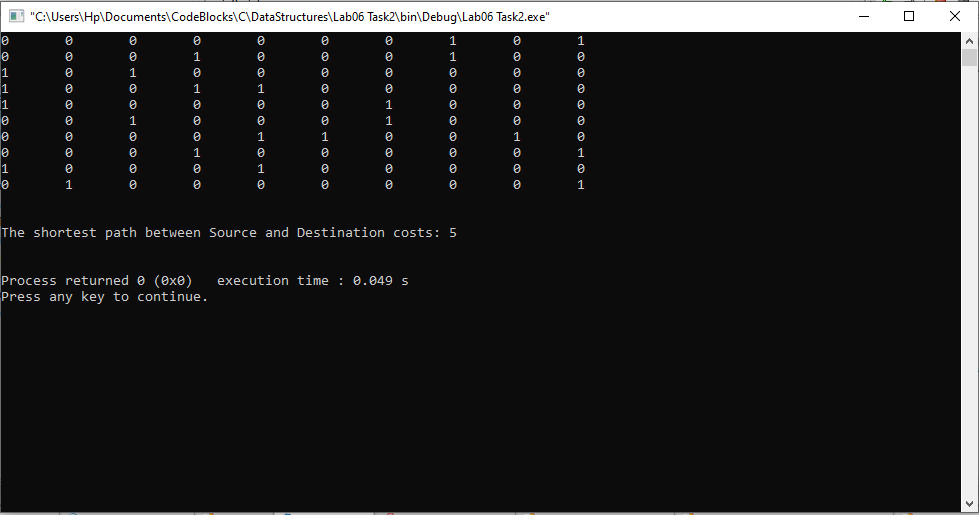
Solution

The code is shown below,

Only this condition was enough to avoid the ones and find the shortest path.



The Result of the following code is attached below:



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THE END