Heaven's Light is Our Guide
Rajshahi University of Engineering & Technology
Department of Computer Science & Engineering

Lab Manual

Course Code: **CSE 1204 (Sec A & B)**
Course Title: Sessional based on CSE 1203
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Module 06 [Data Structure with STL]
(for Week 7)

Topic 1 [STL: stack class]

Problem statement: Write a menu program to create and manipulate Stack using `stack` class and perform the following operations using the specified method.

i) use `push()` method to push data
ii) use `pop()` method to pop data
iii) use `top()` method to display top element
iv) use `empty()` method to check whether stack is empty or not

```
** Stack **
1. Push
2. Pop
3. Display()
4. Exit
   Enter your option:
```

Topic 2 [STL: queue class]

Problem statement: Write a menu program to create and manipulate Queue using `queue` class. Perform the following operations using the specified method.

i) use `push()` method to enqueue data
ii) use `pop()` method to dequeue data
iii) use `front()` method to display front element
iv) use `back()` method to display rear element
v) use `empty()` method to check whether queue is empty or not

```
** Queue **
1. Enqueue
2. Dequeue
3. Display Front
4. Display Rear
5. Exit
   Enter your option:
```

Topic 3 [STL: vector class]

Problem statement: Write a menu program to create and manipulate linked list using `vector` class and use the following methods

i) **`push_back()`**
ii) **`push_front()`**
iii) **`begin()`**
iv) **`end()`**

v) **pop_back()**
vi) **pop_front()**
vii) **insert()**
viii) **erase()**

```
** Linked List **
1. Insert
2. Delete
3. Update
4. Search
5. Exit
   Enter your option:
```

Topic 3.1 [STL: vector class]: Add more feature to the menu of Topic 3.