# Department of Computing

**CS250: Data Structure and Algorithms**

**Class: BSCS 5AB**

# Lab 14: Breadth First Search

**Date: 10th January, 2017**

**Time: 9am- 12pm / 2pm – 5pm**

# Instructors: Shamyl Bin Mansoor / Akhtar Munir

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# Lab 14: Graphs and Breadth First Search

**Introduction**

Graphs have a number of applications in Computer Science. One of the fundamentals way of traversing a graph is using Breadth First Search.

**Objectives**

The objective of this lab is to learn how to implement a graph and then apply breadth first traversal method to it.

**Tools/Software Requirement**

Visual Studio c++ / Java / Python

**Lab Tasks**

You are required to upload the lab tasks on LMS and the name of that tasks must be in this format YourFullName\_reg#.cpp

Remember to comment your code properly.

**Task 1**

Implement a graph whose data set is a set of integers. Implement the breadth first search (BFS) traversal method for this graph. You can use the references given in the lecture slides to understand how to implement BFS for graph traversal.

**Deliverable**

Source code of Task 1.