# Department of Computing

**CS250: Data Structure and Algorithms**

**Class: BSCS 5AB**

# Lab 12: Heap Sort

**Date: 27th December, 2016**

**Time: 9am- 12pm / 2pm – 5pm**

# Instructors: Shamyl Bin Mansoor / Akhtar Munir

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# Lab 12: Heap Sort

**Introduction**

Heap sort is based on the Binary Heap and has a worst case complexity better than Quick Sort.

**Objectives**

To implement Heap sort and understand its complexity

**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 Heap Sort.

**Task 2**

Measure running times of array

* Which is completely sorted
* Which is completely reverse sorted
* Randomly sorted

**Deliverable**

Source code of Task 1 and 2