**Faculty of Computing**

**SE-314: Software Construction**

**Class: BESE 13AB**

# Lab 08: Abstract Data Type - I

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# Lab 08: ADT

# Introduction:

Students will have hands-on experience on designing, testing, and implementing abstract data types. Given a set of specifications, you will write unit tests that check for compliance with the specifications, and then implement code that meets the specifications.

**Material:**

https://ocw.mit.edu/ans7870/6/6.005/s16/psets/ps2/

## Lab Tasks

Solve problem 1-2 of problem set 2 listed on the link. The type we will implement is **Graph<L>:** an abstract data type for mutable weighted directed graphs with labeled vertices.

**Task1:**

Devise, document, and implement tests for Graph<String> .

**Task2:**

Implement weighted directed graphs with String labels — **twice** .

**GitHub Link**

[**https://github.com/musfirbaig/sc\_labs/tree/main/lab8**](https://github.com/musfirbaig/sc_labs/tree/main/lab8)

**Source Code: Zip your source code and upload one file (Including Git link) on LMS as well.**

**Solution**

### Deliverables

Compile a single word document containing Git link by filling in the solution part and submit this Word file on LMS. Also Upload your source code on LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to [aftab.farooq@seecs.edu.pk.](mailto:aftab.farooq@seecs.edu.pk.)