

- Don't forget to set your Eclipse workspace and working set.
- You must submit the JAR file, exported (with source code), from your Eclipse project.
- You must check your JAR file to make sure all the source files (.java files) are present. It can be opened with file compression programs such as 7-zip or Winrar.
- Failure to export properly will result in your work not getting marked.

To submit:

Export your project to a JAR file, with source code.

Name your JAR file ID_Week15_Q1.jar. For example, 6623110021_Week15_Q1.jar

Submit the JAR file on MyCourseville.

Constructing Huffman tree (15 marks, will be scaled to equal to other homeworks)

You are given the files:

- a. Heap.java // code for Heap class
- b. HuffmanNode.java // code for building a Huffman tree
- c. testHuffman.java // test cases for your JUnit (3 marks for each test)

Write the following methods in class HuffmanNode (you are only allowed to modify this file, otherwise you get 0 mark):

(You must not change existing methods or change any variable modifier (ie. Do not change private to public), otherwise you will get 0 mark.)

- **public static HuffmanNode buildHuffmanTree(Heap h) throws Exception**

This method creates a Huffman tree from a given heap (using the method defined in the lecture). It returns the root node of the constructed Huffman tree.