Programming, and Data Structures

Workbook 7

This worksheet WILL be graded.

Research QuickSort and MergeSort and make sure you understand it, then implement it!

Before you begin.

1. Ensure that your workspace is in a folder which is backed up to the web/ network e.g. college network drive, google drive. You may like to have it in the following folder structure …/GriffithCollege/PDS/workspace
2. Load Eclipse selecting the appropriate workspace
3. Make a new java project called Workbook0x
4. Make a new package in this project called workbook0x
5. Make a 3 new java files with the name provided below.

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**\* DETAILED COMMENTS ARE REQUIRED**

**\* TO SHOW YOUR RESEARCH AND UNDERSTANDING**

**\*/**

Q1. Research QuickSort and implement the following. Do not ask for user input in your test class.

1. A class named QuickSort
2. A class named TestQuickSort
   1. Test the list below clearly showing the output before and after the sort. Name the array list1 {**2**,**3**,**2**,**5**,**6**,**1**,**-2**,**3**,**14**,**12**}
   2. Test the list below clearly showing the output before and after the sort. Name the array list2 {**8**,**3**,**4**,**5**,**22**,**-5**,**-2**,**7**,**1**,**18**}

Q2. Research MergeSort and implement the following. Do not ask for user input in your test class.

1. A class named MergeSort
2. A class named TestMergeSort
   1. Test the list below clearly showing the output before and after the sort. Name the array list3 {**2**,**3**,**2**,**5**,**6**,**1**,**-2**,**3**,**14**,**12**}
   2. Test the list below clearly showing the output before and after the sort. Name the array list4 {**8**,**3**,**4**,**5**,**22**,**-5**,**-2**,**7**,**1**,**18**}

Submit your software via Moodle before the deadline. To submit, create an archive in the format

Lastname\_firstname\_studentNumber\_workBookNumber.zip eg Cronin\_Alex\_123456\_workkbook05.zip