7. Read the scenario below and answer the questions that follow:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Exams**  After students have written a number of testes the Lecturers capture the marks onto the system. The system then calculates the average mark and gives the appropriate grade as stipulated by the college exams handbook.   |  |  | | --- | --- | | Average mark | Grade | | >70 | Pass with distinction | | 55-70 | Average Pass | | 0-54 | Failed module |   The method to calculate and grade the average mark must be called **average().**  **Reversing a string**  The user captures a string and then the program reverses the string and prints the reversed string. The method to reverse the string must be called **reverse()**  Source: Makhurane (2018) |

7. Develop a program that can activate methods on a remotely running object. This program consists of two methods that are expected to do the following:

**average()** receives array of marks and calculates the average marks in the array. The average mark is then graded according to the ranges given in the scenario. The message returns the correct message depending on the calculated average.

**reverse()**  receives the string as a parameter, reverses the characters in the string and returns the reversed string.

Create the necessary classes required to complete this program.

In the **main()** method of the client class enters the marks into an array, and enters the string to be reversed. The information is captured through the keyboard.

(30 marks)