

Q1. Create a class named “ArrayMethod” and place it in the package “com.FEE.STpackage”, the ArrayMethod class contains five methods:

1. First method has (an input array of “double” data type) to return the largest number of its values.
2. Second method has (an input array of “int” data type) to reverse it.
3. Third method has (an input array of “int” data type and an integer value) to count the number of its occurrence.
4. Fourth method has (an input array of “char” data type and character value) to count the number of its occurrence.
5. Fifth method has (an input array of student scores “double” data type) to return an array of their grades based on the following scheme:

Grade is A if score is \geq best-10;

Grade is B if score is \geq best-20;

Grade is C if score is \geq best-30;

Grade is D if score is \geq best-40;

Grade is F otherwise.

Q2. Write a Java program to read student scores of “double” data type and print the best score, and then display their grades (A or B or C or D or F) by using the methods of Q1.

Q3. Write a Java program to generate 100 letters randomly and assign to an array of characters. Count the occurrence of each letter in the array by using the methods of Q1.

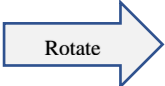
Q4. Suppose there are 8 students, 10 exams, write a Java program to read their scores of “double” data type into 2-dimensional array, and display their grades.

Expected Output:

	0	1	2	3	4	5	6	7	8	9
Student 0	A	B	A	C	C	D	E	E	A	D
Student 1	D	B	A	B	C	A	E	E	A	D
Student 2	E	D	D	A	C	B	E	E	A	D
Student 3	C	B	A	E	D	C	E	E	A	D
Student 4	A	B	D	C	C	D	E	E	A	D
Student 5	B	B	E	C	C	D	E	E	A	D
Student 6	B	B	A	C	C	D	E	E	A	D
Student 7	E	B	E	C	C	D	E	E	A	D

Q5. Write a Java program to read 2-dimensional array and rotate it, as the following example.

6000	12000	6000	10000
27950	46700	23350	37450
67700	112850	56425	96745
141250	171950	85975	156600
307050	307050	153525	307050



6000	27950	67700	141250	307050
12000	46700	112850	171950	307050
6000	23350	56425	85975	153525
10000	37450	96745	156600	307050

Q6. Write a Java program that calculates the total score for each students in a class. Suppose the scores are stored in a three-dimensional array. The first index in an array refers to a student, the second refers to an exam, and the third refers to the part of the exam. Suppose there are 10 students, 5 exams, and each exam has two parts; the multiple-choice part and the programming part. So, scores[i][j][0] represents the score on the multiple-choice part for the i's student on the j's exam. the program displays the total score for each student.