

Deccan Education Society's
Fergusson College (Autonomous), Pune
Department of Mathematics
M.Sc. (IMCA) (2024-2025)
Second Year – Semester III
MTS-621 Practical Lab VI (Core Java)
Java Assignment -2
Methods in Java – II

Note: For all the above programs introduce and appropriate class and implement a mentioned method.

Write a java program for the following:

PART A:

1. Write a method to accept array of characters and return number of vowels and display an array of vowels.
2. Write a method to find the average income of people in the Apartment by accepting random number of incomes from the user.
3. Implement method overriding for calculating area based on shape chosen by the user. Write a menu driven program for the shapes such as - Circle, Rectangle , Square , triangle(For - base and height formula).
4. Write overridden methods to calculate area of a triangle based different types of triangles.
5. Write a method to calculate the distance between two points using Euclidean measure. (For 2-Dimensional values)

PART B:

1. Write a method to calculate the average rainfall in the given state.
Accept the following inputs from the user:
 - a. Name of the state
 - b. Number of regional divisions
 - c. Names of regional divisions
 - d. Number of months (for which we need to calculate the rainfall)
 - e. Rainfall in each month in the region.
2. Write the following methods for the following:
 - a. Accept a character array
 - b. Reverse the array
 - c. Menu driven program to accept character / integer / float array from user.
 - d. Overriding Methods for each type of array – to reverse an array
 - e.
3. Write a method which accepts an array and returns an array with updated value of platelets count in the patient's details. Also display the patient's details with platelets count.
(Rule to update the platelet count –
If age – 1-17 – increase the platelet count by 60%),
18-39 - increase it by 40%,
40 -60 - increase it by 30% ,

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70 and above – increase it by 20%)

Expected Output (After Accepting the array values from user) :

Patients' Details -

Patient Name – XYZ

Contact No. – 78945612309

Age – 55

Platelets Count – 90,000

After treatment –

Platelets Count – 1,50,555

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