

## Assignment 4

**Topic:** Array of objects, static, nested class, command line argument

Sl. No.	Question
1.	<p>Define a class <i>Employee</i> with the following members:</p> <p><b>Data members:</b> private String <i>empName</i> private String <i>empNo</i> private int <i>dependentCnt</i></p> <p><b>Methods:</b> <i>Employee(String name, String eno, int depcnt)</i>: constructor void <i>showEmpDetails()</i>: display <i>empNo</i> and <i>empName</i> int <i>depCount()</i>: returns <i>dependentCnt</i></p> <p>Write a separate class called <i>EmpTest</i> with a main method that define an array of <i>n</i> employees where the value of <i>n</i> will be inputted from the user. Read and store the information of all <i>n</i> employees. Display the details of the employees with more than two dependents.</p>
2.	<p>Create a class <i>Account</i> having data members <i>accNo</i>, <i>balance</i>, <i>timePeriod</i> and <i>intInYears</i> (as static and initialize with 7.5%). The class should also contain the following methods:</p> <ul style="list-style-type: none"><li>• float <i>calculateInterst()</i> which calculates and returns the interest amount.</li><li>• void <i>showAccDetails()</i> which displays account number, balance and calculated interest amount.</li><li>• static void <i>changeIntRate(float newRate)</i> which changes the interest rate to <i>newRate</i>.</li></ul> <p>Create an array of object of the class <i>Account</i>. Store the details of each object through the parameterized constructor. Display all the account details by calling the method <i>showAccDetails()</i>. Change the interest rate to a new one by calling the method <i>changeIntRate()</i>. Finally display the account details after the change in interest rate.</p>
3.	<p>Create a class <i>Student</i> having data members <i>name</i>, <i>roll</i> and <i>address</i>. Note that <i>address</i> is an object of inner class <i>Address</i> having data members <i>city</i> and <i>pin</i>. Create some student class objects. Read, store (using constructor) and display their information. While creating the objects your program should display a message "Creating student number n" from the constructor. You can get the value of <i>n</i> by using a static member of <i>Student</i> class which is initialized to 0.</p>
4.	<p>Write a program that will take two integer numbers from the command prompt and find their GCD and LCM. If the user does not provide exactly two numbers of arguments then the program should display error message.</p>