

LAB SYLLABUS

Experiment No	Name of the Experiment														
Experiment 1	<p>Write a program to calculate professional tax on a salary amount based on the following tax rate. Use appropriate control structures to compute tax and keyboard input for salary amount.</p> <table border="1"> <thead> <tr> <th>Salary Slab</th><th>Tax Rate</th></tr> </thead> <tbody> <tr> <td>Up to Rs. 10000.00</td><td>Nil</td></tr> <tr> <td>Between Rs. 10001.00 – Rs. 25000.00</td><td>Rs. 100.00</td></tr> <tr> <td>Between Rs. 25001.00 – Rs. 50000.00</td><td>Rs. 200.00</td></tr> <tr> <td>Between Rs. 50001.00 – Rs. 75000.00</td><td>Rs. 300.00</td></tr> <tr> <td>Between Rs. 75001.00 – Rs. 100000.00</td><td>Rs. 450.00</td></tr> <tr> <td>Above Rs. 100000.00</td><td>Rs.650.00</td></tr> </tbody> </table>	Salary Slab	Tax Rate	Up to Rs. 10000.00	Nil	Between Rs. 10001.00 – Rs. 25000.00	Rs. 100.00	Between Rs. 25001.00 – Rs. 50000.00	Rs. 200.00	Between Rs. 50001.00 – Rs. 75000.00	Rs. 300.00	Between Rs. 75001.00 – Rs. 100000.00	Rs. 450.00	Above Rs. 100000.00	Rs.650.00
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Experiment 2	Write a menu driven program to i). Reverse the number. ii). Sum of the digits of the number. iii). Printing the prime numbers in a range.														
Experiment 3	Write a program to take a number from keyboard, create an array of that size, insert element in existing array and display it														
Experiment 4	<p>Define a class with suitable methods for the following operations on a set of numbers</p> <ol style="list-style-type: none"> Find the sum of even numbers Find the largest number Find the smallest number <p>Develop a menu-based program to perform the operations. Use array to store the numbers.</p>														
Experiment 5	Write a program to find the volume of the box and use the constructors overloading to initialize the different dimensions of the box.														
Experiment 6	Define a class called SimpleMath with overloaded methods to carryout arithmetic operations such as add, subtract, multiply, and divide using different data types. Use static methods appropriately.														
	In JAIN University, two categories of people are there: students and employees. As per Govt. of India, Indian														

Experiment 7	people must have an AADHAR number for unique identification. Model these objects appropriately using inheritance and create an array of people with several students and employees in it. Write a program to search a student or an employee based on AADHAR number and print its details.
Experiment 8	A bank account maintains a minimum balance. If the account balance comes down below this level due to some withdrawal, then it raises warning and disallows the operation. Define a custom exception class called “InsufficientFundException” which will be raised when such event occurs. Also use the built-in exception class “IllegalArgumentException” which is to be raised when you try to either withdraw or deposit an amount less than or equal to zero.
Experiment 9	Define a thread class called Bank to perform deposit and withdraw functions on a bank account. Use thread synchronization for simultaneous access to the account to carry out banking functions from multiple banks.
Experiment 10	Define a class with the following operations on a line of text. Using the class, write a program to perform the operations. i. Count the number of words in the text ii. Searches a particular string in the text iii. Check if the text is a palindrome
Experiment 11	Write JDBC program to perform CRUD operations on a student database.
Experiment 12	Develop a web application following MVC model (combine Servlet, JSP and Java Bean) to develop an employee database. Perform operations such as insert employee records, search employee by Employee ID.