



**Faculty of Science
School of Basic Sciences**

Department of Computer Applications

Object Oriented Programming Using Java Lab – CA6233

SL. No.	Title of the Program
1	Write a program to display your information using print () method.
4	Write a program to display “Java is an object-oriented programming language” using command line arguments.
5	Write a program to perform all the arithmetic operation by taking inputs from command line.
6	Write a program to perform the addition of n nos. by taking inputs from command line.
7	Write a program to compute & print factorial of any given number.
8	Write a program to compute the sum of digits of a given integer.
9	Write a program to calculate & print first n Fibonacci numbers.
10	Write a program to reverse the digits of a numbers.
11	Write a program to show the use of typecasting.
12	Write a program to show the use of type conversion.
13	Write a program to show the use of Boolean data type.
14	Write a program to show the scope and lifetime of a variable.
15	Write a program to sort element of an array.
16	Write a program to perform the matrix addition & multiplication by allocation memory for an array dynamically.
17	Write a program to read marks out of 100. Declare result as follows: a. 60 or more 1st class



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	b. 50-59 2nd class c. 40-49 pass d. Less than 40 fail
18	Write a program to check whether a year is a leap year or not.
19	Write a program to read string from console and display the number of occurrence of each word.
20	<p>Assume that a bank maintains account for its customers; it may be saving or current. The saving account provides compound interest and withdrawal facilities but not cheque book. The current account provides cheque book but no interest. Current account holders should also maintain a min balance & if the balance falls below, a service charge is imposed. Perform the problem by using the switch cases. Include the necessary methods in order to achieve the following tasks inside switch case:</p> <p>a) Accept deposit from a customer and update the balance b) Display the balance. c) Compute and deposit interest d) Permit withdrawal and update the balance. e) Check for the minimum balance, impose penalty. If necessary, and update the balance. Display all the information.</p>
21	Write a program to calculate the area of two different rectangle using class & objects.
22	Perform the Q. No. 21 by introducing methods for initializing the values and for calculating the area.
23	Perform the Q. No. 21 by introducing constructor for initializing the values.
24	Write a program to perform the Stack operations using class & objects.
25	Write a program to calculate the Volume of rectangle and cube using method overloading.
26	Perform the Q. No. 25 using constructor overloading.
27	Write a program to show pass by value and pass by reference.
28	Write a program to show how object and be returned.



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29	Perform the Q. No. 7 using class, object and recursion.
30	Write a program to show how static can be used in java.
31	Input two one dimensional arrays A and B which are in ascending order. Write a program to merge them into a single sorted array C that contains every item from array A and B in ascending order.
32	<p>Write a program to accept the shopping list of 5 items and stores them in a vector to accomplish the following task.</p> <ol style="list-style-type: none">1. Delete an item from the list.2. Add an item at a specified location in the list.3. Add item at the end of the list. <p>Print all the desired information. Perform the task using class & objects.</p>
33	<p>Assume that the bank maintains two kinds of account. One called Saving Account and the other is Current Account. The saving account provides compound interest and withdrawal facility but no cheque book facility. The current account provides cheque book facility and withdrawal facility but no interest. Current account holders should also maintains a minimum balance and if the balance falls below this level, a service charge is imposed.</p> <p>Create a class Account that stores customer name, account number, and the type of account. From this derive the class curr_acct and sav_acct to make them more specific to their requirement. Include the necessary methods in order to achieve the following task.</p> <ul style="list-style-type: none">• Accept deposit from customer and update the balance.• Display the balance.• Permit withdrawal and compute the balance.• Check for minimum balance, impose penalty if necessary and update the balance. <p>Display all the desired information.</p>
34	Write a program to show the use of super.
35	<p>Assume that the publishing company markets print books and digital books. Create a class named Publication with data members named title, price and authors name. from Publication class derive two classes named Books and Ebooks. The Book class adds a page count data member named pcount while Ebook adds data member playing time name ptime. Each of the classes must have member functions getdata() to read class specific data from keyboard and displaydata() to output the class specific data to the computer screen. Write a Program to test these classes.</p>
36	<p>Assume that a shape interface contains the data members PI and functions area () and perimeter (). Implement these two methods according to type of shape like circle, rectangle and square classes.</p>



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37	Assume that binary interface contains the method: binary to decimal, decimal to binary, two's complement and binary addition. Create the appropriate classes to implement these methods.
38	Write a program to display the use of all access modifiers with the help of two packages
39	Design a package to contain the class student and another package that contains the interface sports. Write a program to display the Rollno, Paper1, Paper2 and total score of the candidates.
40	Write a program to show the use of simple try/catch statement.
41	Write a program to show the use of nested try/catch statements.
42	Write a program to show the use of "throw", "throws" and "finally" keyword.
43	Write a program to create a custom exception. Show its use with the help o java program.
44	Write a program to read two integer number and calculate the division of these two numbers, throw an exception when wrong type of data is keyed in. and also maintain a try block to detect and throw exception if condition "divide by zero" occurs.
45	Define an exception called "NoMatchException" that is thrown when a string is not equal to "India". Write a program that uses this exception.
46	Write a program to copy characters from one file into another using character streams
47	Write a program to write bytes to a file.
48	Write a program to read bytes from file by using program no 47.
49	Write a program to create a sequential file that could store details of five students. Details include id, name, class, semester, three subject marks. Compute and print students information and their total marks.
50	Write a program to show reading and writing with random access file. At the same time append some text to a file.
51	Write an applet program to print Hello.
52	Write an applet program to print Hello by passing parameter.
53	Write a program to perform the arithmetic operations by using interactive inputs to an applet.



SL. No.	Title of the Program						
54	Write a program to draw various shapes (at least 5) using methods of graphics class.						
55	Write an applet program to draw bar charts.						
	Year	2009	2010	2011	2012	2013	2014
	Turnover (Rs. Crores)	110	150	135	200	210	185
56	Write an applet program to insert image, audio and video data.						
57	Write a program to illustrate the use of multithreading. Also set priorities for threads.						
58	Write a program that connects to a server by using a socket and sends a greeting, and then waits for a response.						
59	Write a program to create server application that uses the Socket class to listen for clients on a port number specified by a command-line argument:						
60	Write a program to show the use of methods of the ArrayList and LinkedList classes.						
61	Write a program to show how Vector class can be used.						
62	Write a program to search an element in a collection using binarySearch method.						
63	Write a program to create a file using text fields in windows. a. TextFiled: Roll_number, Name and marks. b. Button: enter and done. c. Labels: Roll Number, Student Name and Marks.						
64	Write a program to read the file using text fields from program no 63.						
65	Write a program depicting the usages of keyboard event in an applet.						
66	Write a program to expand ring on mouse click.						
67	Write a program to create a simple notepad in windows. Add more modules to the notepad as per your intelligence.						