

## JAVAPROGRAMMINGLAB

### COURSE OUTCOMES (COS):

1. Write Java application programs using OOP principles and proper program structuring.
2. Develop Java program using packages and inheritance..
3. Develop Java programs that can handle exceptions
4. Develop graphical User Interface using AWT.
5. Demonstrate event handling mechanism.
  1. Write a simple java application, to print the message, "Welcome to java"
  2. Write a program to display the month of a year. Months of the year should be held in an array.
  3. Write a program to demonstrate a division by zero exception
  4. Write a program to create a user defined exception say PayOut of Bounds.
  5. Write a java program to add two integers and two float numbers. When no arguments are supplied, give a default value to calculate the sum. Use function overloading.
  6. Write a program to perform mathematical operations. Create a class called AddSub with methods to add and subtract. Create another class called MulDiv that extends from AddSub class to use the member data of the super class. MulDiv should have methods to multiply and divide. A main function should access the methods and perform the mathematical operations.
  7. Write a program with class variable that is available for all instances of a class. Use static variable declaration. Observe the changes that occur in the object's member variable values.
  8. Write a java program to create a student class with following attributes: Enrollment\_id: Name, Mark of sub1, Mark of sub2, mark of sub3, TotalMarks. Total of the three marks must be calculated only when the student passes in all three subjects. The pass mark for each subject is 50. If a candidate fails in any one of the subjects his total mark must be declared as zero. Using this condition write a constructor for this class. Write separate functions for accepting and displaying student details. In the main method create an array of three student objects and display the details.
  9. In a college first year class are having the following attributes: Name of the class (BCA, BCom, BSc), Name of the staff, No of the students in the class, Array of students in the class
  10. Define a class called first year with above attributes and define a suitable constructor. Also write a method called best Student () which process a first-year object and return the student with the highest total mark. In the main method define a first-year object and find the best student of this class
  11. Write a Java program to define a class called employee with the name and date of appointment. Create ten employee objects as an array and sort them as per their date of appointment. i.e., print them as per their seniority.
  12. Create a package "student.Fulltime.BCA" in your current working directory. Create a default class student in the above package with the following attributes: Name, age, sex.

b. Have methods for storing as well as displaying

13. Write a small program to catch Negative Array Size Exception. This exception is caused when the array is initialized to negative values.

14. Write

a program to handle NullPointerException and use the "finally" method to display a message to the user.

15. Write a program which creates and displays a message on the window.

16. Write a program to draw several shapes in the created window.

17. Write a program to create an applet and draw grid lines.

18. Write a program which creates a frame with two buttons father and mother. When we click the father button the name of the father, his age and designation must appear. When we click mother similar details of mother also appear.

19. Create a simple applet which reveals the personal information of yours.

20. Write a java Program to create a window when we press M or m the window displays Good Morning, A or a the window displays Good After Noon E or e the window displays Good Evening, N or n the window displays Good Night

21. Demonstrate the various mouse handling events using a suitable example.

Write a program to create menu bar and pull-down menus