VISHNU INSTITUTE OF TECHNOLOGY : : BHIMAVARAM
(AUTONOMOUS)
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Year/Semester	II B. Tech / I Sem	L	T	P	C
Regulation Year	2022-23	3	0	0	3
Subject	**Object Oriented Programming through Java Lab**				
Branch	**CSE, IT, AI&DS,AIML,CSBS**				

Course Objectives:

- Practice Programming in the Java
- Gain knowledge of object oriented paradigm in the java programming language
- Learn use of java in a variety of technologies and on different platforms.

Exercise - 1 (Basics)

a) Write a JAVA program to display default value of all primitive data type of JAVA
b) Write a java program that display the roots of a quadratic equation ax2 +bx=0. Calculate the discriminate D and basing on value of D, describe the nature of root.
c) Five Bikers Compete in a race such that they drive at a constant speed which may or may not be the same as the other. To qualify the race, the speed of a racer must be more than the average speed of all 5 racers. Take as input the speed of each racer and print back the speed of qualifying racers.

Exercise - 2 (Operations, Expressions, Control-flow, Strings)

a) Write the programs using the concept of operators, nested loops, recursion, arrays, String and StringBuffer class.

Exercise - 3 (Class, Objects)

a) Write a JAVA program to implement class mechanism. Create a class, methods and invoke them inside main method.
b) Write a JAVA program to implement constructor.

Exercise - 4 (Methods)

a) Write a JAVA program to implement constructor overloading.
b) Write a JAVA program implement method overloading.

Exercise - 5 (Inheritance)

a) Write a JAVA program to implement Single Inheritance
b) Write a JAVA program to implement multi-level Inheritance
c) Write a java program for abstract class to find areas of different shapes
d) Write a JAVA program give example for "super" keyword.
e) Write a JAVA program to implement Interface. What kind of Inheritance can be achieved?

Exercise - 6 (Exception)

a) Write a JAVA program that describes exception handling mechanism
b) Write a JAVA program Illustrating Multiple catch clauses

Exercise – 7 (Runtime Polymorphism)

a) Write a JAVA program that implements Runtime polymorphism
b) Write a Case study on run time polymorphism, inheritance that implements in above problem

Exercise – 8 (User defined Exception)

a) Write a JAVA program for creation of Illustrating throw
b) Write a JAVA program for creation of Illustrating finally
c) Write a JAVA program for creation of Java Built-in Exceptions
d) Write a JAVA program for creation of User Defined Exception

Exercise – 9 (Threads)

a) Write a JAVA program that creates threads by extending Thread class .First thread display "Good Morning "every 1 sec, the second thread displays "Hello "every 2 seconds and the third display "Welcome" every 3 seconds ,(Repeat the same by implementing Runnable)
b) Write a program illustrating isAlive and join ()
c) Write a Program illustrating Daemon Threads.
d) Write a JAVA program Producer Consumer Problem

Exercise – 10 (Packages)

a) Write a JAVA program illustrate class path
b) Write a case study on including in class path in your os environment of your package.
c) Write a JAVA program that import and use the defined your package in the previous Problem

Exercise - 11 (I/O & JDBC)

a) Write a program that uses the I/O package for reading and writing a text file.
b) Write a program that uses JDBC API for interacting with the database.

Course Outcomes:

1. Apply the basic features of JAVA such as Control statements, Arrays, Classes, Inheritance, Interface and Packages in solving a problem
2. Apply appropriate IO stream and collection framework for solving real time problem
3. Determine Class, Objects, Methods, Exception and Polymorphism.
4. Illustrating Simple Inheritance, multi-level Inheritance , Exception handling mechanism.
5. Construct Threads and Implement Packages.