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Education and Research Department

Assignments for Java Programming Part 2

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Assignments for Java Programming Part 2

Assignment 1: Understanding Thread Class

Objective: To understand how Thread Class works.

Problem Description: write a program for extending the java.lang.Thread class. Override the run () method to print the message "Hello Threads". Write another program to create 5 instances of above thread which will run simultaneously.

Assignment 2: Understanding Runnable Interface

Objective: To develop a Thread using Runnable Interface.

Problem Description: Write a class name Test that implements Runnable interface and create threads using concepts you have studied in classroom session.

Assignment 3: Understanding Thread class methods

Objective: Understanding other useful methods of Thread class.

Problem Description: Modify the above program to print the same message 5 times. Use the sleep() method to sleep the thread for some time. Try with changing the priorities of the threads.

Assignment 4: Understanding FileOutputStream Class

Objective: Experimenting with FileOutputStream class.

Problem Description: Write the Java program to store following string into *BigJava.dat* file.
"*Welcome to the world of Java Programming*". Use the java.io.FileOutputStream class for the writing the string.

Assignment 5: Understanding how to copy the content using Files

Objective: Writing a program in Java to copy the content of a file.

Problem Description: Write a java program to copy the contents of file *BigJava.dat* to S*mallJava.dat* file. Use java.io.FileInputStream class to perform the copy.

Assignment 6: Understanding Buffered Streams

Objective: Understanding Buffered Streams .

Problem Description: Modify the above assignment such that input and output operations are performed with buffering using BufferedInputStream and BufferedOutputStream.

Assignment 7: Understanding Statement interface of JDBC API

Objective: Understanding Statement Interface of JDBC API.

Problem Description: Write a JDBC program to fetch all the employee details from the Employee table and store the result in List format.

Step 1: Loading the specific driver
Step 2: Making a connection to the database
Step 3: Sending SQL statements to the database
Step 4: Create an object of Array list
Step 5: Traverse the Result Set
Step 6: Add all the records in Array List object.
Step 7: Display the results

Assignment 8: Understanding PreparedStatement of JDBC API

Objective: Understanding PreparedStatement of JDBC API.

Problem Description: Write a JDBC program to accept an EmpId and age. Display all the details of that employee whose age is greater than 25. If the age of the employee is not greater than 25, display the message "No record Found".

Use PreparedStatement Interface.

Step 1: Loading the specific driver

Step 2: Making a connection to the database

Step 3: Sending SQL statements to the database

Step 4: Processing and display the results

Assignment 9: Understanding ResultSetMetadata

Objective: Understanding ResultSetMetadata .

Problem Description: Write a program to make use of ResultSetMetaData class . The program should display the following:
-The number of columns in the table, the data types of each column and the column name.

Assignment 10: Understanding Transaction

Objective: Understanding JDBC Transaction and use Classes and interfaces of JDBC API related to this concept.

Problem Description: Write a JDBC program which gives you idea of how to implement transactions using JDBC API as studied during session.