

SRI BALAJI UNIVERSITY, PUNE
SCHOOL OF COMPUTER STUDIES

Class: SYBCA Sem V

Subject Name: Advance Java Programming

Laboratory Subject Code: BCA507

Credit: 3

Advance Java Programming Assignments

Assignment No.	Assignment Name
Assignment No- 1	Implementing Collection Framework s using List Interface
Assignment No- 2	Implementing Collection Framework s using Set Interface
Assignment No- 3	Implementing Collection Framework s using Map Interface
Assignment No- 4	Design AWT application using Collection Framework
Assignment No- 5	Implementing multithreading using Thread Class
Assignment No- 6	Implementing multithreading using Runnable Interfaces
Assignment No- 7	Design applet applications using Multithreading
Assignment No- 8	Implementing JDBC using various statements
Assignment No- 9	Design AWT application with Database Connectivity
Assignment No- 10	Demonstrate JSP programs
Assignment No- 11	Develop Web Application using JSP
Assignment No- 12	Demonstrate Servlet programs
Assignment No- 13	Develop Web Application using Servlet
Assignment No- 14	Demonstrate Spring MVC programs
Assignment No- 15	Implementation of Spring Forms and Validations

1. Assignment on Implementing Collection Framework s using List Interface

1. Write a java program to accept the course name in your university, insert them in the array list collection, display the same array list's content, and remove all courses in the array list.
2. Write a program to create link list of String objects. Do the following:
 - i.add element at first position
 - ii.delete last element
 - iii.display the size of link list
3. Write a java program to accept n employee details from user, store them into the Vector class. Display all employee details. Accept emp id from user to search and display the searched employee details. If an employee is not found, then print the appropriate message.

Signature of the instructor:----- Date:-----

Assignment Evaluation

0: Not Done [] 1: Incomplete [] 2: Late Complete []
3: Needs Improvement [] 4: Complete [] 5 : well done []

2] Assignment on Implementing Collection Framework s using Set Interface

1. Write a program to create a new tree set, add some colors (string) and print out the tree set.
2. Write a java program to create a tree set, add the elements print, remove the specific element from the set.

Signature of the instructor:----- Date:-----

Assignment Evaluation

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3: Needs Improvement [] 4: Complete [] 5 : well done []

3] Assignment on Implementing Collection Framework s using Map Interface

1. Write a program to sort HashMap by keys and display the details before sorting and after sorting.
2. Write a java program to replace a value associated with the given key if and only if it is currently mapped to given value
3. Write java program to store country names and its codes in Hash map. Check accepted country is present or not.

Signature of the instructor:----- Date:-----

Assignment Evaluation

0: Not Done [] 1: Incomplete [] 2: Late Complete []
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4] Assignment on Design AWT application using Collection Framework

1. Create a java application to store city names and their STD codes using an appropriate collection. The GUI should allow the following operations:
 - i. Add a new city and its code (No duplicates)
 - ii. Remove a city from the collection
 - iii. Search for a city name and display the code
2. Create a GUI to accept employee details (empin, ename, dept, salary, mob_no). Create a collection of the accepted information and display employee details in a tabular format.

Signature of the instructor:----- Date:-----

Assignment Evaluation

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5] Assignment on Implementing multithreading using Thread Class

1. Write a program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.
2. Write a Java program that creates three threads. First thread displays "Good Morning" every one second, the second thread displays "Hello" every two seconds and the third thread displays "Welcome" every three seconds.

Signature of the instructor:----- Date:-----

Assignment Evaluation

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6] Assignment on Implementing multithreading using Runnable Interfaces

1. Write a program to calculate the sum and average of an array of 1000 integers (generated randomly) using 10 threads. Each thread calculates the sum of 100 integers. calculate average. [Use join method].
2. Write a java program to display "Hello Java" message n times on the screen. (Use Runnable Interface).

Signature of the instructor:----- Date:-----

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7] Assignment on Design applet /AWT applications using Multithreading

1. Write a program that simulates a traffic light. The program lets the user select one of three lights: red, yellow, or green with radio buttons. On selecting a button, an appropriate message with "stop" or "ready" or "go" should appear above the buttons in a selected color. Initially there is no message shown.
2. Write a java program in multithreading using applet for Digital watch.
3. Write a Multithreading program in java for Racing Car. (Use AWT)

Signature of the instructor:----- Date:-----

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8] Assignment on Implementing JDBC using various statements

1. Write Java application program to change the basic = basic + 500 of all the employees whose age is greater than 40 from employee table then display how many record updated.(Using Prepared Statement)
2. Write a JDBC program to displays the details of Company (cno, cname, department) whose department is "Computer Science".(Using Callable Statement)

Signature of the instructor:----- Date:-----

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9] Assignment on Design AWT application with Database Connectivity

1. Consider Bank table with attributes AccountNo, CustomerName, Balance, Phone and Address. Create GUI application which allows insertion, updation and deletion of records in Bank table. Print values of all customers whose balance is greater than 20,000.
2. Write a java program to display the selected employee details in JTable. (use database, combo box for employee selection) Employee having fields eno, ename, sal, desg.
3. Create tables : Course (id, name, instructor) and Student (id, name). Course and Student have a many to many relationship. Create a GUI based system for performing the following operations on the tables: Course: Add Course, View All students of a specific course Student: Add Student, Delete Student, View All students, Search student

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10] Assignment on Demonstrate JSP programs

1. Write a JSP program to check whether given number is Perfect or not. (Use Include directive).
2. Write a JSP program to accept the details of Product (Pname, PType, Price) and store it into database and display it in tabular form. (Use PreparedStatement interface)

Signature of the instructor:----- Date:-----

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11] Assignment on Develop Web Application using JSP

1. Write a JSP program to create an online shopping mall. User must be allowed to do purchase from two pages. Each page should have a page total. The third page should display a bill, which consists of a page total of whatever the purchase has been done and print the total. (Use Session)
2. Write a JSP program to display the details of patient (patient_no, patient_name, patient_address, patient_age, patient_disease) in tabular form on browser.

Signature of the instructor:----- Date:-----

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12] Assignment on Demonstrate Servlet programs

1. Write a program in Java to create a Cookie and set the expiry time of the same.
2. Write a program in Java to create a form and validate a password using Servlet.
3. Write a SERVLET program which counts how many times a user has visited a web page. If user is visiting the page for the first time, display a welcome message. If the user is revisiting the page, display the number of times visited. (Use Cookie)

Signature of the instructor:----- Date:-----

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13] Assignment on Develop Web Application using Servlet

1. Write a SERVLET program in java to accept details of student (SeatNo, Stud_Name, Class, Total_Marks). Calculate percentage and grade obtained and display details on page
2. Design an HTML page to accept roll number of the student. Write a servlet program to search for the roll number in the database (student) and return the student details if found, otherwise display the error message.

Signature of the instructor:----- Date:-----

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14] Assignment on Demonstrate Spring MVC programs

1. Create web project and spring frame work.
2. Conf i gure dispatcher servlet.
3. Create form beans/Domain objects.
4. Create controller by extending SimpleForm Controller.
5. Set command object and override onsubmit method.
6. Create view ,set command object.
7. Test your app.

Sample output:

Login page

User Name:		GEETHA
password:		*****
<input type="button" value="Login"/>		
New User?Register		

Top of Form

Signature of the instructor:----- Date:-----

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15] Assignment on Implementation of Spring Forms and Validations

- 1 Design a login page with entries for name, mobile number, email id and login button. Use struts and perform following validations
 - a. Validation for correct names
 - b. Validation for mobile numbers
 - c. Validation for email id
 - d. Validation if no entered any value
 - e. Re-display for wrongly entered values

Signature of the instructor:----- Date:-----

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