

Swayam Siddhi Mitra Sangh's College of Management & Research

C E R T I F I C A T E

This is to certify that Mr. **Sujit Kargal** of M.C.A. Semester I(NEP 2020) with Roll No.**2523** has completed **10** programs of **MCAL12 Advanced Java Lab** under my supervision in this college during the Academic Year 2025-26.

| Attendance | Progress in Problem Solving and Task Completion | Integration of Advanced Features and Technologies | Effective Use of Tools and Frameworks | Document Presentation and Demonstration |
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Course/ Lab Teacher

Head of the Department

External Examiner

INDEX

| Sr | Category / Problem Statement | Date | Signature |
|----|---|----------|-----------|
| 1 | Assignments on Java Generics <p>1. Write a Java Program to demonstrate a Generic Class. 2. Write a Java Program to demonstrate Generic Methods. 3. Write a Java Program to demonstrate Wildcards in Java Generics.</p> | 4-10-25 | |
| 2 | Assignments on List Interface <p>1. Write a Java program to create List containing list of items of type String and use for-each loop to print the items of the list.</p> <p>2. Write a Java program to create List containing list of items and use ListIterator interface to print items present in the list. Also print the list in reverse / backward direction.</p> | 11-10-25 | |
| 3 | Assignments on Set Interface <p>1. Write a Java program to create a Set containing list of items of type String and print the items in the list using Iterator interface. Also print the list in reverse / backward direction.</p> <p>2. Write a Java program using Set interface containing list of items and perform the following operations: a. Add items in the set. b. Insert items of one set in to other set. c. Remove items from the set d. Search the specified item in the set</p> | 18-10-25 | |
| 4 | Assignments on Map Interface <p>1. Write a Java program using Map interface containing list of items having keys and associated values and perform the following operations: a. Add items in the map. b. Remove items from the map c. Search specific key from the map d. Get value of the specified key e. Insert map elements of one map in to other map. f. Print all keys and values of the map.</p> | 25-10-25 | |
| 5 | Assignments on Lambda Expression <p>1. WAP using Lambda Expression to print “Hello World”. 2. WAP using Lambda Expression with single parameters. 3. Write a Java program using Lambda Expression with multiple parameters to add two numbers. 4. Write a Java program using Lambda Expression to calculate the following: a.Convert Fahrenheit to Celsius b.Convert Kilometers to Miles. 5. Write a Java program using Lambda Expression with or without return keyword. 2. Write a Java program using Lambda Expression to concatenate two strings.</p> | 1-11-25 | |

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| 6 | <p>Assignments based on web application development using JSP</p> <ol style="list-style-type: none"> 1. Write a JSP page to display the Registration form (Make your own assumptions) 2. Design Loan calculator using JSP which accepts Period of Time (in years) and Principal Loan Amount. Display the payment amount for each loan and then list the loan balance and interest paid for each payment over the term of the loan for the following time period and interest rate: <ol style="list-style-type: none"> a) 1 to 7 year at 5.35% b) 8 to 15 year at 5.5% c) 16 to 30 year at 5.75% 3. Write a JSP program that demonstrates the use of JSP declaration, scriptlet, directives, expression, header and footer. 4. Database Application | 8-11-25 | |
| 7 | <p>Assignment based Spring Framework</p> <ol style="list-style-type: none"> 1. Write a program to print “Hello World” using spring framework. 2. Write a program to demonstrate dependency injection via setter method. 3. Write a program to demonstrate dependency injection via Constructor. 4. Write a program to demonstrate Autowiring. | 15-11-25 | |
| 8 | <p>Assignment based Aspect Oriented Programming</p> <ol style="list-style-type: none"> 1. Write a program to demonstrate Spring AOP – before advice. 2. Write a program to demonstrate Spring AOP – after advice. 3. Write a program to demonstrate Spring AOP – around advice. 4. Write a program to demonstrate Spring AOP – after returning advice. 5. Write a program to demonstrate Spring AOP – after throwing advice. 6. Write a program to demonstrate Spring AOP – pointcuts. | 22-11-25 | |
| 9 | Assignment based Spring JDBC | 29-11-25 | |
| 10 | <p>Assignment based Spring Boot and RESTful Web Services</p> <ol style="list-style-type: none"> 1. Write a program to create a simple Spring Boot application that prints a message. | 4-12-25 | |

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C E R T I F I C A T E

This is to certify that Miss. **Shalini Rawat** of M.C.A. Semester I(NEP 2020) with Roll No.**2542** has completed **10** programs of **MCAL12 Advanced Java Lab** under my supervision in this college during the Academic Year 2025-26.

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C E R T I F I C A T E

This is to certify that Mr. **Lovekesh Dishwar** of M.C.A. Semester I(NEP 2020) with Roll No.**2514** has completed **10** programs of **MCAL12 Advanced Java Lab** under my supervision in this college during the Academic Year 2025-26.

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C E R T I F I C A T E

This is to certify that Mr. **Gaurav Patil** of M.C.A. Semester I(NEP 2020) with Roll No.**2539** has completed **10** programs of **MCAL12 Advanced Java Lab** under my supervision in this college during the Academic Year 2025-26.

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C E R T I F I C A T E

This is to certify that Mr. **Akash Kanojiya** of M.C.A. Semester I(NEP 2020) with Roll No.**2522** has completed **10** programs of **MCAL12 Advanced Java Lab** under my supervision in this college during the Academic Year 2025-26.

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