LECTURE PLAN

Institute/Department	UNIVERSITY INSTITUTE OF COMPUTING (UIC)	**Program**	**Master of Computer Applications (MC305)**
Master Subject Coordinator Name:	Amanjot Kaur	**Master Subject Coordinator E-Code**:	**E13604**
Course Name	Advanced Internet Programming Lab	**Course Code**	**24CAP-652**

Lecture	Tutorial	Practical	Self Study	Credit	Subject Type
0	0	4	0	2.00	P

Course Type	Course Category	Mode of Assessment	Mode of Delivery
Major Core	Graded (GR)	Practical Examination (PRAC)	Practical (PRAC)

Mission of the Department	M1. To provide innovative learning centric facilities and quality-oriented teaching learning process for solving computational problems. M2. To provide a framework through Project Based Learning to support society and industry in promoting a multidisciplinary activity. M3. To develop crystal clear evaluation system and experiential learning mechanism aligned with futuristic technologies and industry. M4. To provide doorway for promoting research, innovation and entrepreneurship skills in collaboration with industry and academia. M5. To undertake societal activities for upliftment of rural/deprived sections of the society.
Vision of the Department	To be a Centre of Excellence for nurturing computer professionals with strong application expertise through experiential learning and research for matching the requirements of industry and society instilling in them the spirit of innovation and entrepreneurship.

Text Books

Sr No	Title of the Book	Author Name	Volume/Edition	Publish Hours	Years
1	Java: The Complete Reference	Herbert Schildt	10th	McGraw-Hill Education	2017
2	Java Persistence with Hibernate	Gavin King, Christian Bauer	2nd	Manning publisher, New York-USA	2018

Reference Books

Sr No	Title of the Book	Author Name	Volume/Edition	Publish Hours	Years
1	Introduction to Java Programming	Y. D. Liang	3rd	Pearson Education	2018
2	JAVA 2 Unleashed	Stephen Potts	6th	Sams Publishing	July 2002

Course OutCome

SrNo	OutCome
CO1	"Understand the basic concepts of Static vs Dynamic Web, enterprise applications and client-server architecture"

CO2	Developing Enterprise Applications Using JBOSS, EJB, JDBC, and RESTful APIs
CO3	Implementing Data Validation in Java Applications Using Bean Validation and REST APIs
CO4	Building Scalable and Efficient Enterprise Applications with JPA, JMS, MDB, and CDI
CO5	Developing Full-Stack Web Applications with Node.js and Enterprise Java Technologies

Lecture Plan Preview-Practical

Unit No	ExperimentNo	Experiment Name	Text/ Reference Books	Pedagogical Tool**	Mapped with CO Numer(s)
1	1	1a) Create a simple client server communication application while creating a HTML with form and two input fields like First Name and Last Name. Submit the data to a servlet where the form data is retrieved and displayed. Create form with GET method and another with POST method.	T-Java: The Complete Reference	Hand On Activity based	CO1
1	2	1a) Create a simple client server communication application while creating a HTML with form and two input fields like First Name and Last Name. Submit the data to a servlet where the form data is retrieved and displayed. Create form with GET method and another with POST method.	T-Java: The Complete Reference	Hand On Activity based	CO1
1	3	1b) Package , Build and deploy the application on JBOSS [wild fly] application server using maven.	T-Java: The Complete Reference	Hand On Activity based	CO1
1	4	1b) Package , Build and deploy the application on JBOSS [wild fly] application server using maven.	T-Java: The Complete Reference	Hand On Activity based	CO1
1	5	1c) Install java development tools such as JBDS, maven, JBoss EAP server.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based	CO1

1	6	2) Create a servlet that describes how to use the HttpSession object to find out the creation time and the last-accessed time for a session. We would associate a new session with the request if one does not already exist.	,T-Java: The Complete Reference,R-Introduction to Java Programmi	Hand On Activity based	CO1
1	7	2) Create a servlet that describes how to use the HttpSession object to find out the creation time and the last-accessed time for a session. We would associate a new session with the request if one does not already exist.	,T-Java: The Complete Reference,R-Introduction to Java Programmi	Hand On Activity based	CO1
1	11	LAB MST	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO1
2	8	3a) Create Java EE application that maintain the employee data using ORM [hibernate] and develop the Java Persistent Query to persist the data in database.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based	CO2,CO4
2	9	3a) Create Java EE application that maintain the employee data using ORM [hibernate] and develop the Java Persistent Query to persist the data in database.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO2,CO4
2	10	3b) Use JNDI naming for Java database connectivity.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO2,CO4
2	12	4a) Convert and deploy the employee data application in Enterprise Java Beans and apply the Bean Validation.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO3
2	13	4a) Convert and deploy the employee data application in Enterprise Java Beans and apply the Bean Validation.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Infographics Practical,Simulation Practical	CO3
2	14	4b) Apply one-to-one Entity relationship mapping.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Infographics Practical,Simulation Practical	CO3

3	15	5) Implement CRUD operation with database on NodeJS with MongoDB/MySQL.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Infographics Practical,Simulation Practical	CO5
3	16	5) Implement CRUD operation with database on NodeJS with MongoDB/MySQL.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Infographics Practical,Simulation Practical	CO5
3	17	5) Implement CRUD operation with database on NodeJS with MongoDB/MySQL.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO5
3	18	6) Create and consume Restful web services for accessing employee data application securely.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO2,CO4
3	19	6) Create and consume Restful web services for accessing employee data application securely.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO2,CO4
3	20	6) Create and consume Restful web services for accessing employee data application securely.	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Infographics Practical,Simulation Practical	CO2,CO4
3	21	Project-I (PHASE-1)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical	CO1,CO4
3	22	Project-I (PHASE-2)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO4
3	23	Project-I (PHASE-3)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO4
3	24	Project-I (PHASE-4)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO4
3	25	Project-I (PHASE-5)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO4
3	26	Project-II (PHASE-1)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO2,CO3
3	27	Project-II (PHASE-2)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO2,CO3
3	28	Project-II (PHASE-3)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO2,CO3
3	29	Project-II (PHASE-4)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO2,CO3

3	30	Project-II (PHASE-5)	,T-Java Persistence with Hibernat,T-Java: The Complete Reference,R-Introduction to Java Programmi,R-JAVA 2 Unleashed	Hand On Activity based,Infographics Practical,Simulation Practical	CO1,CO2,CO3

Assessment Model			
Sr No	Assessment Name	Exam Name	Max Marks
1	24PRAC02	External Viva / Voce	40
2	24PRAC02	Attendance (Practical)	2
3	24PRAC02	Practical Worksheet 1	30
4	24PRAC02	Practical Worksheet 2	30
5	24PRAC02	Practical Worksheet 3	30
6	24PRAC02	Practical Worksheet 4	30
7	24PRAC02	Practical Worksheet 5	30
8	24PRAC02	Practical Worksheet 6	30
9	24PRAC02	Lab MST	10
10	24PRAC02	Experimental Learning [EXL] - Mini Projects	6