



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Vocation (B.Voc), 3rd Semester

Branch: Information Technology

Subject Name: Advanced Java Lab

Subject Code: 1130505

Type of course: Core

Prerequisite: Java programming language

Rationale: This course provides the knowledge necessary to understand java and develop dynamic web pages. This course is intended for programmers who are familiar with Java and want to learn about the advanced features of Java and server-side programming.

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical		
			ESE (E)	PA(M)	ESE (V)	PA (I)		
-	-	2	2	-	-	30	20	50

L- Lectures; T- Tutorial/Teacher Guided Student Activity; P- Practical; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

Contents:

Sr. No.	Practical / Hands on Exercise	Hrs.	% Weightage
1	Implement TCP Server for transferring files using Socket and Server Socket	03	05
2	Implement cookies to store first name and last name using Java server pages.	04	05
3	Develop an applet that draws a circle. The dimension of the applet should be 500 x 300 pixels. The circle should be centered in the applet and have a radius of 100 pixels. Display your name centered in a circle.(using draw Oval() method)	04	05
4	Implement student registration form with enrollment number, first name, last name, semester, contact number. Store the details in the database. Also implement search, delete and modify facilities for student records.	03	10
5	Write a Servlet program to print system date and time.	03	05
6	Design a web page that takes the Username from the user and if it is a valid username prints “Welcome Username”. Use JSF to implement.	03	05
7	Write a Hibernate application to store customer records and retrieve the customer record including name, contact number, address.	04	05
8	Write an application to keep records and retrieve records of students. The record includes student id, enrollment number, semester, SPI. Use MVC architecture.	04	10
	Total	28	50



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Sr. No.	CO Statement	Marks % Weightage
CO-1	Implement Networking and Database connectivity in Java for given applications.	30
CO-2	Implement a web page with dynamic content and server-side web application using Servlet and JSP.	40
CO-3	Demonstrate advanced JAVA programming in the real world.	10
CO-4	Develop mini projects	10

List of Open Source Software/learning website:

1. <https://www.tutorialspoint.com/>
2. <https://www.geeksforgeeks.org/introduction-java-servlets/>