

Advanced Java Programming

Code: CS 802E

Credits: 3

Client & server side programming.

Enterprise architecture styles: Single tier , 2-tier , 3-tier, n-tier; Relative comparison of the different layers of architectures.

MVC Architecture: Explanation, Need, Drawbacks, J2EE WEB SERVICES, Different components & containers.

Servlet: Introduction, Advantages over CGI, How it works?, Servlet life cycle, Servlet API (Different interfaces & classes of generic servlet & HTTP servlet), Accessing user information by means of Request & Response, Servlet session management techniques and relative comparison.

JSP: Introduction, Comparison between JSP & servlet., Architecture/Life cycle, Different types of JSP architectures and relative comparison.; JSP tags ,Directives, Scripting elements, Actions; JSP implicit objects, Accessing user information using implicit objects.

EJB :Introduction, Comparison of EJB & Java Beans , Applications, Drawbacks, Different types of enterprise beans ,Services provided by EJB container.

RMI: Introduction and applications, Architecture ,Use of RMI Registry.

JNDI: Introduction and applications, Comparison between LDAP and JNDI

JDO (Java Data Objects): Introduction, Integration of EJB and JDO, JDO & RMI

JINI :Introduction, Applications

JDBC: Introduction, Database driver ,Different approaches to connect an application to a database server, Establishing a database connection and executing SQL statements, JDBC prepared statements, JDBC data sources.

XML: Java & XML, XML syntax, Document type definition., Parsers, SAX parsers, DOM parsers, SAX vs. Dom, JAXP and JAXB.