

J2SE/JEE industry practice

Core Java with strong OOPS:

History Overview

Eclipse IDE

Methods

Constructors

Interfaces

Abstract Classes

POJO POJI

Polymorphism

-Overloading

-Overriding

Inheritance

coding standards

Serialization

Deserialization

Exceptions

Assertions

JDBC

Basic Annotations

Arrays

Generics

Collections:

- List,Set,Hashmap, etc.

- Real-time scenarios

Practice

Weekly/Topic Assessment

Advanced Java JEE.

JEE Introduction

Adv Java terminology

Practical advantages

Introduction

- Servlets, JSP

Practicals

- Eclipse IDE

- Eclipse sample project

- Eclipse Adv java project build
- Eclipse best practices

Servlets

- Servlets terminology
- Servlet API
- Servlet Lifecycle
- Servlet in Eclipse
- Servlet related; Filters, Session tracking, Listener, etc.

JSP

- JSP Lifecycle
- JSP scripting
- JSP in Eclipse
- JSP implicit objects
- Related; Directives, Exceptions

Action elements, JSTL etc

Design patterns:

- MVC2
- MVVM..

Development models

- Waterfall model
- Agile methodology..

Practice

- Weekly/Topic Assessment

➤ **Understanding of Design patterns:**

- Introduction
- Best practices
- Practical advantages
- Core Design Patterns
- Creational, Structural, Behavioral

➤ **Java/JEE Design Patterns:**

- J2EE Design Patterns
- Business Delegate, Session Facade, DAO, DTO, etc.
- Anti patterns
- Refactoring, SCRUM , etc.

➤ **EJB 3.x**

- EJB 3.1 Introduction
- Implementation in Jboss 7
- EJB 2.x Vs EJB 3.x

EJB 3.1:

- Session Bean

-Stateless Session Bean

-Stateful Session Bean

EJB 3.1: (Extension Practice)

-Session Bean

-Stateless Session Bean

-Stateful Session Bean

➤ **WebServices (RESTful/SOAP):**

WebServices

-RESTful/SOAP

Practice

-Weekly/Topic Assessment

➤ **JMS (mostly covered as part of EJB spec):**

JMS introduction

JMS Queue

JMS Point-to-Point Messaging Domain

Publisher/Subscriber Messaging Domain

JMS with EJB (Extension Practice)

EJB MDB (Message Driven Bean)

➤ **XML(mostly covered as part of EJB spec):**

EJB MDB (Extension practice)

EJB XML

EJB XML configurations

EJB XML for Webservices

EJB entity beans

JPA introduction

JPA introduction (Extension practice)

EJB layered integrations

Practice

Best practice Utils:

-Eclipse debugging, shortcuts

-Unit testing

-SVN/CVS Version controllers

-Log 4j

Practice

-Weekly/Topic Assessment

➤ **Course Assessment**