

Java Enterprise Application Development

Lecture 0 Introduction to the Course

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Learning Objectives

- LO1: understand the Java EE platform's general working mechanism and key concepts
- LO2: learn the basic syntax and skills of Java programming
- LO3: learn key techniques and skills involved in developing Java enterprise applications
- LO4: develop the capability of designing and implementing complex software systems based on the Java EE platform

Contents

- Part A: Java Foundations
 - Variables, operators, control flow statements, arrays, numbers and strings, exceptions, generics, annotations, reflection
- Part B: Object-Oriented Programming with Java
 - Classes and objects, inheritance and interfaces
- Part C: Basics of Java EE Programming
 - Servlet programming, client state maintenance, JDBC
- Part D: Advanced Topics in Java Enterprise Application Development
 - JPA and Hibernate, Spring, JMS, JTA

Assessment Components

- a) Attendance and participation (10%)
- b) Programming examination (20%)
- c) Assignment A (20%), group-based
 - A software project that deeply involves fundamental Java programming concepts and techniques
 - Source code, documents, and presentation
- d) Assignment B (50%), group-based
 - A software project that deeply involves enterprise Java development concepts and techniques
 - Source code, documents, and presentation
- *For c and d, each group contains at most 4 members*