Prologue

Description

The Introduction to Java course helps the students to get familiar with the Java programming language. It discusses the classes, objects, strings, and arrays. In addition, the course discusses how to create graphical user interfaces. Further, it discusses how to implement inheritance, polymorphism, error handling, and event handling.

The course explains how to create a Java application. It focuses on enabling the students to create both, CUI-based application and GUI-based application, by using Java. It provides details on declaring variables and literals and using arrays. In addition, the course discusses how to use conditional and looping statements, operators, and exceptions and assertions. It also discusses how to implement events. Further, the course describes how to create nested classes, override methods, and create interfaces and packages in Java.

Rationale

Today, there are varied electronic devices available in the market. To work with these electronic devices, different applications are used. These applications are developed by using different programming languages, such as C, C++, Java, and C#. However, the applications developed by using programming languages like C and C++ do not support cross-platform portability.

Java is an object oriented programming language that helps to develop real-life portable applications. We can create both, CUI-based application and GUI-based application, by using Java. The code reusability feature of Java enables software developers to upgrade the existing applications without rewriting the entire code of the application.

Objectives

After completing this course, the students will be able to:

- Get familiar with Java
- Implement operators
- Work with conditional and loop constructs
- Work with arrays, enums, and strings
- Implement inheritance and polymorphism
- Handle errors
- Design a user interface
- Handle events

Entry Profile

The students who want to take this course should have basic knowledge of logic building and effective problem solving.

Exit Profile

After completing this course, the students will be able to develop object-based applications in Java.