



Reg No: W/P 81396

3 , 1/1, Fernando Road, Wellawatta

Colombo 6

☎ 0112 363632 / 0112 364567 / 0777996242

Web:www.aict.lk

Java Programming

Course Contents

Basic Language Elements:

Lexical Tokens, Identifiers

Keywords, Literals, Comments

Primitive Data types, Operators, Assignments

Object Oriented Programming

Class Fundamentals

Object & Object reference

Object Life time & Garbage Collection

Creating and Operating Objects

Constructor & initialization code block

Extending Classes and Inheritance

Use and Benefits of Inheritance in OOP

Types of Inheritance in Java

Inheriting Data Members and Methods

Role of Constructors in inheritance

Overriding Super Class Methods

Polymorphism in inheritance

Package

Organizing Classes and Interfaces in Packages.

Package as Access Protection

Defining Package.

Exception Handling:

The Idea behind Exception

Exceptions & Errors

Types of Exception

Control Flow In Exceptions

Array & String

Defining an Array

Initializing & Accessing Array

Multi –Dimensional Array

Operation on String

Mutable & Immutable String

Using Collection Bases Loop for String

Thread

Understanding Threads

Needs of Multi-Threaded Programming.

Applet

Applet & Application

Applet Architecture.

Parameters to Applet

Embedding Applets in Web page.

Applet Security Policies

A Collection of Useful Classes

Utility Methods for Arrays

Observable and Observer Objects

Input/output Operation in Java(java.io Package)

Streams and the new I/O Capabilities

GUI Programming (Using Net Beans)

Designing Graphical User Interfaces in Java

Components and Containers

Basics of Components

Using Containers

Layout Managers

AWT Components

Event Handling

Event-Driven Programming in Java

Event- Handling Process

Event-Handling Mechanism

The Delegation Model of Event Handling

Networking Programming

Networking Basics

Client-Server Architecture

Socket Overview

Database Programming using JDBC

Introduction to JDBC

JDBC Drivers & Architecture

CURD operation Using JDBC

Connecting to non-conventional Databases.