

# Kotlin

## 1. Introduction to Kotlin

- Kotlin History
- Kotlin Advantages
- How Kotlin Program Work?
- Kotlin software Prerequisites
- Installing Java JDK and JRE
- Installing Android Studio
- Creating Kotlin Project using Android Studio
- Creating a Kotlin Program
- Running a Kotlin Program
- Writing comments
- Kotlin Variables
- Kotlin Data Types
- Input of Information to Kotlin Program

## 2. Control Flow Statements

- Introduction
- If statement
- If-else- statement
- When Statement and expression
- For Loops
- While Loops
- Do- While loops
- Jump Expressions
  - Break Statement
  - Continue Statement
  - Return statement

### 3. Function & Object-Oriented Programming (OOP)

- Function
- Function Structure
- Creating a Function
- Function and variable scope
- Object –Oriented Programming (OOP)
- Object
- Class
  - Creating a class
  - Providing Constructors for your classes
  - Class inheritance
  - Overloading constructors
  - Overriding Properties
  - Abstract Class
  - Interface Class
  - Generic Class
  - Enum Class
  - Class Variables
  - Member Variables
- Kotlin collection
  - Class Hash maps
  - Class Array List
  - Method mutableListof