



## 1. Dart

- > Introduction
- > Variables
- > Operators
- > Expressions
- > Conditional Statements
- > Looping
- > Function
- > Data Structure
  - > List
  - > Set
  - > Map
  - > Iterables
- > OOPs Concepts
  - > Classes
  - > Constructor
  - > Callable Classes
  - > Exception Handling
- > Metadata
- > Async Programming
- > Libraries [String, Http Classes, Uri Class, DateTime Class]

## 2. Flutter

- > Introduction to Flutter – The what's and why's
- > Dart's Importance in Flutter
- > Installing Flutter plugin within VS code
- > Downloading / cloning Flutter SDK
- > Setting up Flutter
- > Structure of Flutter project
- > A simple app from scratch
- > Widget
  - > Introduction
  - > Widgets and their role in Flutter app.
  - > The MaterialApp and Scaffold widget.
  - > AppBar
  - > FloatingActionButton.
  - > More widgets : Text, Center & Padding
- > Adding icons to widgets
- > Hot Reload and Hot Restart, the tricks of the trade
- > Default Flutter App (UI only)



- > Containers and their Role.
- > Importing images from Network
- > Importing images from assets
- > Understanding rows and column
- > ListView and ListTile.
  - > Building views using ListView.Builder.
- > InkWell and its importance.
- > Stateless and Statefull widgets – The concept
- > Stateless vs Statefull widgets.
  - > Defining a 'State'
  - > The setState() method
- > Returning the default Flutter App
- > Navigating through Navigation
  - > Navigator and routes
  - > Applying push() using MaterialPageRoute.
  - > Applying pop()
  - > Declaring parameter-less routes (pushNamed()) in MaterialApp widget.
- > Handling User Input
  - > Using TextField.
  - > Handling Changes in a TextField
  - > Pass retrieved values using Navigator
- > User Interface
  - > Applying ThemeData
  - > The basic screen layout
  - > Applying custom font
- > Asynchronous Functions
  - > The 'Future' Function
  - > 'async' and 'await'
- > Working with Remote Data
  - > The 'http' package
  - > Model class and JSON parsing
  - > Displaying Remote Data (News API)