**Chapter 3**

Dart is a modern, object-oriented programming language developed by Google, primarily used for building mobile, web, and desktop applications with the Flutter framework. It is designed to be simple, efficient, and easy to learn, offering powerful features like strong typing, null safety, and asynchronous programming. Dart enables developers to write fast, reliable, and maintainable code by enforcing type safety, preventing null-related errors, and supporting asynchronous operations through Futures and Streams. The language supports object-oriented principles such as inheritance, polymorphism, and encapsulation, making it ideal for building modular and reusable code. Dart also integrates seamlessly with Flutter, providing a single codebase for cross-platform development. With its rich set of libraries, collections, and functions, Dart simplifies common tasks, allowing developers to focus on creating high-performance, visually appealing applications.