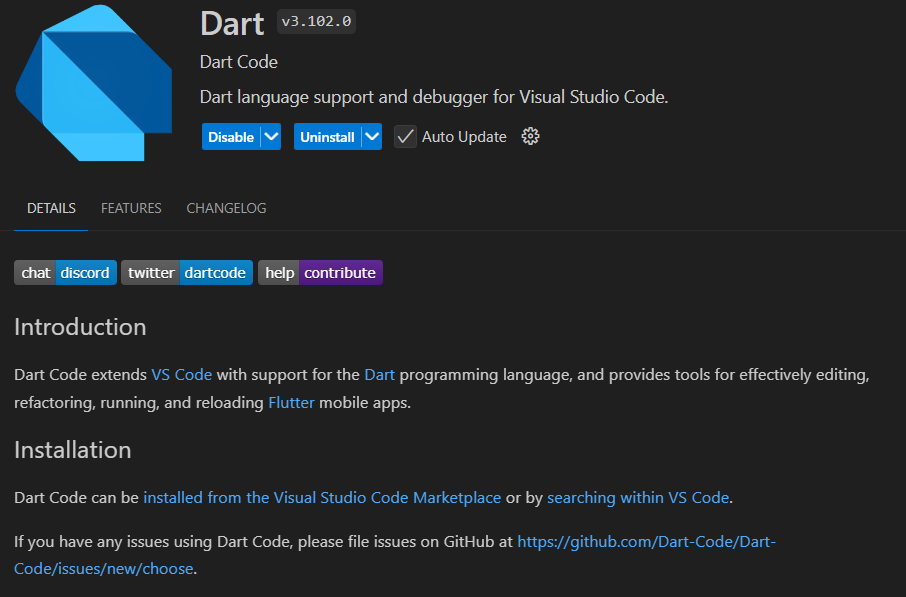
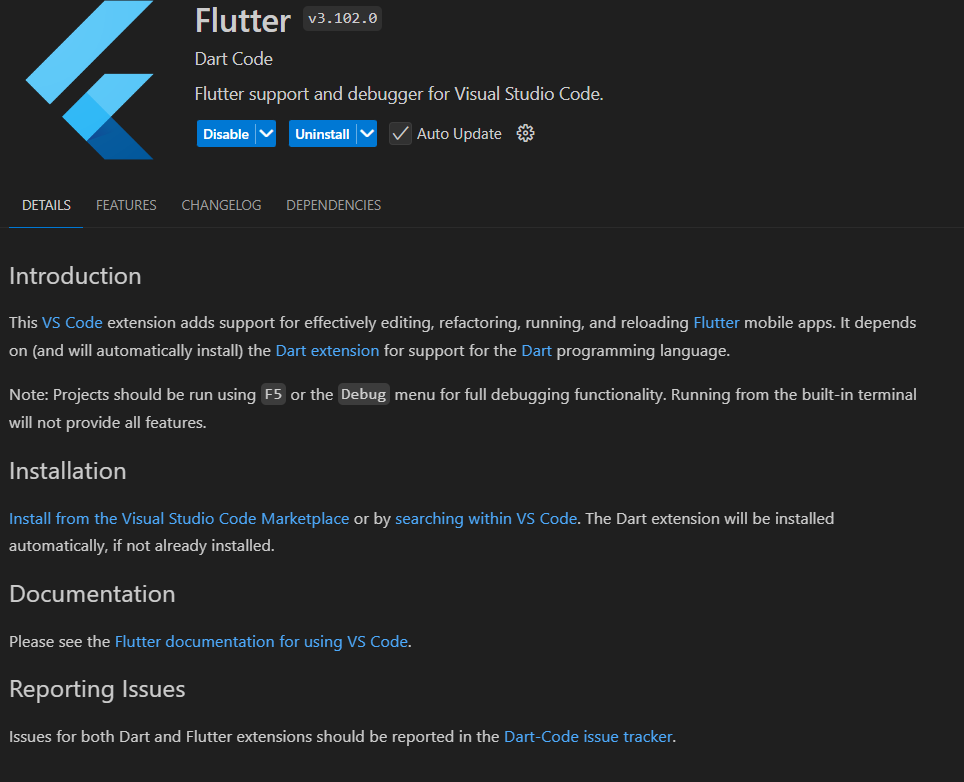
**Chapter 1**

Flutter is an open-source UI framework developed by Google, allowing developers to build natively compiled applications for mobile, web, and desktop from a single codebase. It is designed to provide high performance and beautiful, responsive user interfaces, using a reactive framework where the UI updates based on the current state. Flutter relies heavily on **widgets** — everything in Flutter is a widget, including the app itself. It offers **stateless** and **stateful** widgets for static and dynamic UIs, respectively. Dart, the programming language behind Flutter, is an object-oriented, class-based language that is fast, modern, and easy to learn. Dart supports features like null safety, asynchronous programming with **Future** and **Stream**, and is used to manage the app’s logic, handle data, and perform operations. Flutter and Dart work seamlessly together, with Dart handling the logic and asynchronous operations while Flutter takes care of rendering the UI and managing user interactions. This combination enables developers to create beautiful, fast, and scalable apps that work across multiple platforms.

****