First, what do we mean by cross-platform? It simply means that if an application can be run or can function in different types of computer system, it is a cross-platform application.

If put it easy, a cross-platform mobile app development framework is a program that allows the creation of a single reusable codebase fulfilling the principle of “Write Once, Run Everywhere”. It helps build an app that can run on multiple mobile platforms and operating systems. It creates a mobile application that can function on various smartphone systems. This implies that applications that operate on multiple platforms could use the same code. Developing mobile applications follows the same principles. There is coding specific to Android, iOS, and Windows. So, in cross-platform development framework, the software code is compatible with several platforms to run.

Ionic development is a type of cross-platform mobile development that helps developers create one code to operate multiple platforms. This framework uses Cordova plugins which allow access to devices in-built features including camera, GPS, and Audio Recorder, posing as one of the major benefits of cross-platform development tools. The fact that Ionic gives a native-like feel to the apps is what makes it a favorite of developers. It helps develop cross-platform apps and allows them to perform perfectly on various platforms.

React native is a native version of the popular web library of the same name and its main purpose is to bring the power of React to native mobile apps development. It focuses on UI to a great extent rendering a highly responsive interface. What it means is that the React Native environment eliminates the time taken in loading and delivers a smooth interface to the applications.

Google developed this open-source framework in 2015. Flutter is a cross-platform solution, which means that you can build apps with a single codebase that runs on multiple platforms. Additionally, this framework serves as the primary platform for Fuchsia, a new Google operating system expected to replace Android eventually. Since it is an easy-to-use software development kit, it enables you to quickly create an app and then run it on Android and Ios.

So today, Xamarin not only provides its platform to build cross-platform mobile applications but it also further supports the development ecosystem to test and debug products. This framework offers robust compile-time checking thus developers witness fewer run-time errors and get well-functioning apps.

As opposed to react native, nativescript provides developers with a complete web resource that come loaded with plugins for all kinds of solutions.