

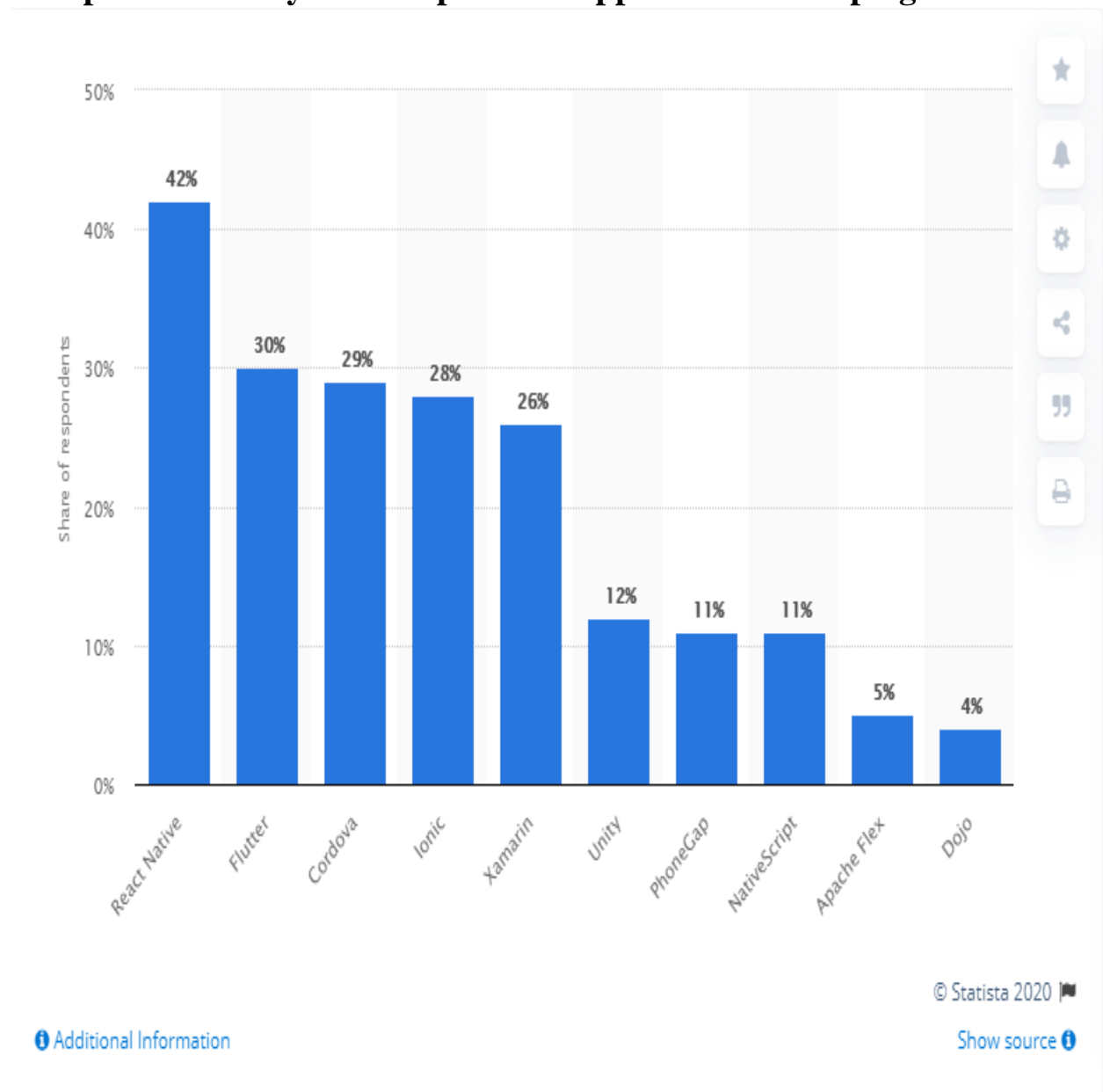
## ADF Practical – 8 Steps

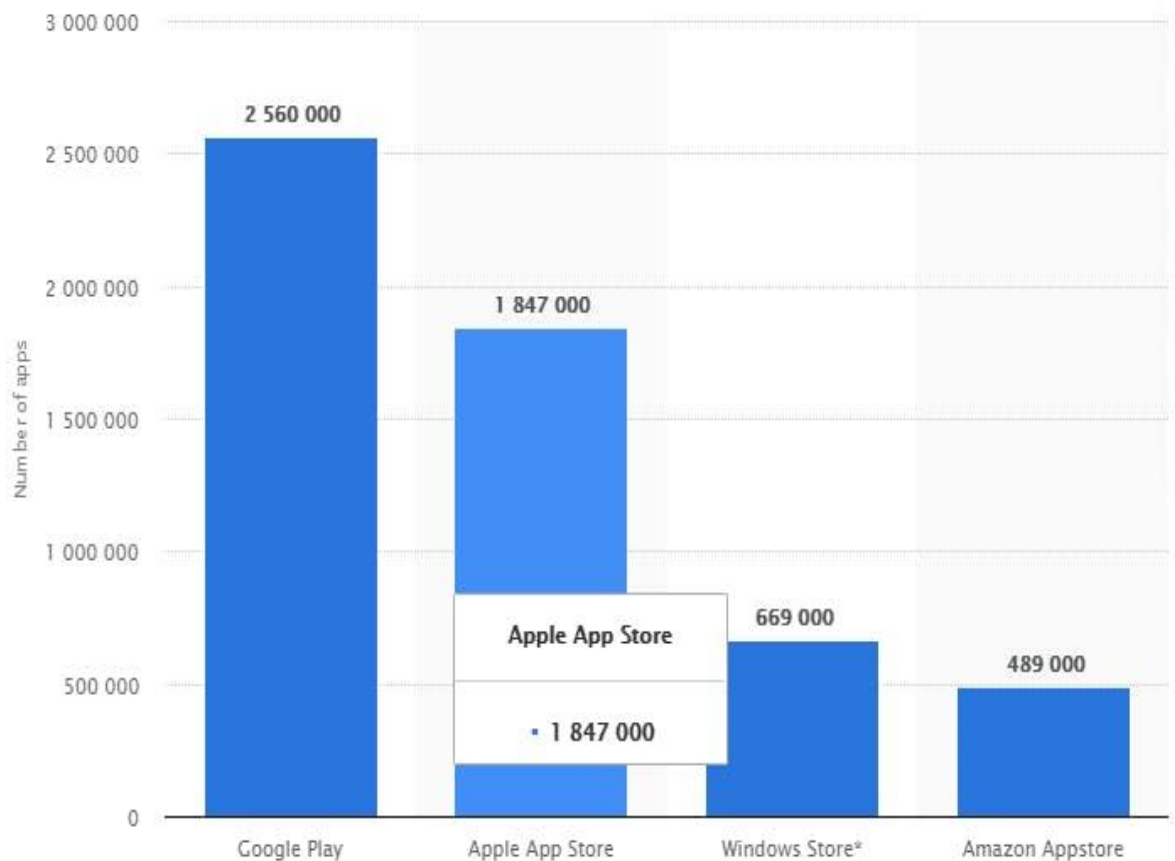
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**Q1:-**

**Comparative Study of cross platform application developing tools.**





## Q2: What is cross-programming?

- Cross-programming is about programs that can also run on another platform. Instead of using different apps for different platforms, developers use cross-platform app development frameworks for brilliant execution and saving time. If you develop apps for Android platforms, you no longer have to think about building an app for iPhone.

### Q3: Comparative Study

	Ionic	React	Xamarin	Flutter	Kivy
<b>Programming Language</b>	CSS, HTML5, Typescript, JavaScript	Java, Swift, JavaScript, Objective C	C# with .net environment	Dart	Python, Cython
<b>Performance</b>	Moderate	Close-to-native	Ios/Android: Close-to-native Forms: Moderate	Amazing	Use on GPU to maximize performance
<b>User Interface</b>	CSS, HTML	Uses Native UI Controllers	Uses Native UI Controllers	Uses Proprietary widgets for stunning UI	Graphical user interface opensource Python library
<b>Market and Community</b>	Strong	Very Strong	Strong	New to Market so not very popular	Lack in community because package size is huge
<b>Platforms Supported</b>	Android 4.4+, IOS 8+, Windows 10	Android 4.1+, IOS 8+	Android 4.0.3+, IOS 8+, Windows 10	Android Jelly Bean, v16, 4.1.x or newer and IOS 8+	Android, iOS, Linux, macOS, and Windows
<b>Code Reusability</b>	98% code reusable	90% code reusable	96% code reusable	50-90% code reusable	60-80% code reusable

<b>Well-known Application</b>	JustWatch, Pacifica and Nationwide	Instagram, Facebook, Airbnb and UberEats	Storyo, Olo, The World Bank	GoogleAds, The New York Times, eBay	100 Days of Fitness, Game of Thrones CORRAL
<b>Costing</b>	Open Source, Paid plans	Open Source	Open Source, Paid plans	Open Source	Open Source
<b>Use cases</b>	All apps	Simple apps	Simple apps	All apps	All apps
<b>Recent popularity trend</b>	Flat	Increasing	Slightly decreasing	Increasing	Increasing
<b>Backed By</b>	Drifty	Facebook	Microsoft	Google	Kivy organization
<b>Year Introduce</b>	2013	2014	2011	2018	2010

-----**Thank You**-----