

Native, Non-Native, and Cross-Platform Applications in Information Technology

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I. NATIVE APPLICATIONS

A native application is created specifically for a mobile operating system and developed using the special (native) language of that system.

A. Description

The use of such applications will cause an increase in the workload in the development of cross-platform applications since each operating system requires a different application, increasing work time and cost. Examples of languages used include Objective-C or Swift for iOS, Java or Kotlin for Android, and .Net for Windows Phone.

B. Advantages

- Can access all the functionalities of the device, with full access to hardware features such as GPS, data, camera, Bluetooth; also can access to APIs.

C. Disadvantages

- Higher cost.
- Single code for each platform.
- More time to develop.
- Specialized equipment required.

II. NON-NATIVE APPLICATIONS

Consist of a single development that can be deployed on multiple operating systems and is also easily accessible through a browser.

A. Advantages

- Savings in production and maintenance costs.
- Scalable developments.
- Improved process efficiency.
- Accessibility.

B. Disadvantages

- Access to the device's functions is limited.

III. CROSS-PLATFORM APPLICATIONS

Created under a single programming language that facilitates their export and, therefore, their display on any type of device regardless of the operating system.

A. Advantages

- Cross-platforms don't need to use the browser as they can be downloaded.
- They are compatible with all types of devices.

B. Disadvantages

- Many multi-platform applications only a limited series of functions can be implemented.

IV. CONCLUSION

Native applications are designed for a specific platform or type of device. Hybrid applications are native applications with an embedded web browser. Cross-platform ones do not require the use of the browser as they can be downloaded and thus create a shortcut from the device.

V. REFERENCES

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- 2) ABAMobile, "Apps multiplataforma. Qué son y características". Accedido el 10 de enero de 2024. [En línea]. Disponible: <https://abamobile.com/web/apps-multiplataforma-que-son-y-caracteristicas/>