

# **Introduction to a PWA**

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# What is a PWA?

It is a web application that combines features of a browser and can use mobile functionalities. PWAs can be accessed from any browser and can be downloaded like a native app.

## Characteristics of a PWA

- Updated: PWAs always show the latest version to the user, using automatic updates constantly without the need for manual downloads.
- Secure: As they have web characteristics, they use the HTTPS protocol, providing an additional level of security using technologies like TLS.
- Fast: They have the loading speed of a browser, optimization, and caching to accelerate the search process.
- Offline: They can function without the internet, allowing pages to be loaded for users and informing them that there is no current connection, enhancing the user experience.

## Differences between a native, responsive, and progressive web

Features	Native Web	Responsive Web	Progressive Web
Offline Functionality	✓	×	✓
Push Notifications	✓	×	✓
Installable on Home Screen	✓	×	✓
No Installation Required	×	✓	✓
No Update Required	×	✓	✓
Works on All Devices	×	✓	✓

## Advantages

- Cross-platform, accessible from any browser and operating system.
- Adapts functions to the user's browser.
- Allows informing users through push notifications.
- No need for downloads, saving space on the mobile device.
- Loading speed is similar to native apps, superior to web applications.

## Disadvantages

- Cannot access all device functionalities, such as contact lists or advanced camera features.
- Currently, not all browsers are compatible with PWAs, so a portion of users may still not have access to them.
- PWAs are suitable for developing mobile-friendly and accessible apps, but their technology may not yet support creating very complex sites.

## References

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