

PhoneGap

General Information

PhoneGap is based on Apache Cordova. PhoneGap offers an open-source mobile development framework which makes it possible to use standard web technologies such as HTML5, CSS3, and JavaScript for cross-platform development. This framework makes it possible to develop mobile applications for different platforms, avoiding each mobile platforms' native development language.

Applications itself, developed via PhoneGap, are implemented as web pages. The web pages execute as a *Web View* within the native application wrapper, which is distributed to app stores. It is necessary for the application to reference a `cordova.js` file, which provides API bindings, in order to enable the interaction with various device features.

The framework offers two different workflows for developing mobile applications.

Reviewing the usefulness of PhoneGap for our project / Estimation of the effort to use PhoneGap in our development

In order to develop the mobile application for several platforms using PhoneGap we would have to accomplish the following tasks:

- i. Installing PhoneGap itself and several additional tools (e.g. Plugman in order to manage plug-ins).
- ii. Installing the SDK for every platform we want to support.
- iii. Work through at least one, but more likely several guides, for each platform we want to support.

The tasks to do also require additional effort:

- i. We would have to become acquainted with the usage and integration of the `Cordova API`. Moreover PhoneGap offers two workflows that we are required to become familiar with in order to choose and use one of them for our development.
- ii. Installing the SDKs requires us to choose which platforms we want to support and there are plenty:
 - Amazon Fire OS
 - Android
 - BlackBerry 10
 - Firefox OS
 - iOS
 - Ubuntu
 - Windows Phone
 - Windows 8
 - Tizen

Furthermore we only have Android devices (none of us has e.g. a Windows-phone, an iPhone, or an Ubuntu device).

Conclusion

As the integration of cross-platform development and thus the usage of PhoneGap would require us to get acquainted with a lot of guides and information as well as installing a lot of software, we think that this effort will take too much from our workload time.

We fear that if we integrate cross-platform development it will result in a mobile application which runs on several platforms, but on the other hand offers only a small number of basic features. The development of an application which runs only on android devices is preferred as we are optimistic that we can achieve to implement more features in more depth. Moreover we only have Android devices to make usability tests with the mobile app under realistic circumstances.

As the concerns we have about using cross-platform development are greater than the advantages it has, we recommend the development of the mobile application for Android devices only.

Sources:

<http://docs.phonegap.com/en/3.4.0/index.html>

<http://de.wikipedia.org/wiki/PhoneGap>