İrem Baysal - 21172137

Mobile Development Platforms for Cross Platform (Mostly Android & iOS)

- **MonoGame** – Cross platform game development
- **MonoTouch (Xamarin.iOS)**
- **Mono for Android (Xamarin.Android)**
- **PhoneGap**: PhoneGap, which won great acclaim at Web 2.0 Expo San Francisco's 2009 Launch Pad event, is an FOSS environment that allows developers to create apps for Android, Palm, Symbian, BlackBerry, iPhone, iTouch and iPad devices. This platform uses standard web development languages such as HTML and JavaScript.
- **Appcelerator Titanium**: The Titanium Development Platform from Appcelerator, which incidentally has a formidable fan following in Twitter, aids the development of native mobile, tablet and desktop apps via web programming languages such as HTML, PHP, JavaScript, Ruby and Python. It now powers over a 1,000 native apps per month. The best thing about Titanium is that if gives users easy access to over 300 APIs and location information.
- **Native Development (for Android & iOS)**
- **Phodes**
- **MoSync**: MoSync, yet another FOSS multi-platform mobile app dev SDK tool, is based on standard web programming. This SDK offers the developer integrated compilers, libraries, runtimes, device profiles and other useful tools. While support for JavaScript, PHP, Ruby, Python and such other languages is planned, MoSync now includes Eclipse-based IDE for C/C++ programming.
- **DragonRad**
- **WidgetPad**: WidgetPad is a collaborative, open-source environment for development of smartphone apps. This program uses standard web technologies, such as JavaScript, HTML5 and CSS3.(Beta)

- **RhoMobile**: RhoMobile offers Rhodes, which is an open-source framework based on Ruby. This permits the developer to create native apps, spanning over a stunning range of OS' and smartphones. The OS' include Android, Windows Mobile, Symbian, iPhone and RIM, which pretty much covers it all.
  The framework supplied by RhoMobile is such that you only need to code once. This code can be used to build apps for most of the major smartphones. Native apps are great for working with available hardware, so your job gets done with ease, speed and accuracy.

Native Development: The most obvious way to build mobile applications is to use the native tools that come with the platform.

- For Android, it is Java and either Eclipse or the new Android Studio, along with the Android SDK.
- For iOS, it is Objective-C and XCode.
- For Windows Phone it would be C# and Visual Studio.

Xamarin: When you write an application using the Xamarin tools you are basically using an abstraction on top of the real SDKs for iOS and Android. What this means is that you will end up with a fully native application with a fully native user interface on each platform.

Tool Name	Mobile OS Support	OS Support
Rhodes	Android, BlackBerry, iOS, Symbian, Windows Mobile, Windows Phone	Linux, Mac, Windows
PhoneGap	Android, BlackBerry, iOS, Symbian, WebOS, Windows Phone	Linux, Mac, Windows
DragonRad	Android, BlackBerry, iOS, Windows Mobile	Linux, Mac, Windows
MoSync	Android, iOS, BlackBerry, JavaME, Symbian, Windows Mobile	Linux, Mac, Windows,

Name	Language	Accessibility to native API's	IDE	Plug-in Extendibility
RhoMoblie	HTML, HTML5, CSS, JavaScript,	JavaScript	RhoStudio RhoHub, *	Yes
PhoneGap	HTML, HTML5 CSS, CSS3 JavaScript	JavaScript	IDE native of the mobile OS (e.g. Eclipse, Xcode)	Yes
DragonRad	D&D	na	DragonRad Designer	No
MoSync	HTML, HTML5, CSS, JavaScript C, C++	JavaScript, C, C++	Based on Eclipse	Yes

API Name	Rhodes JavaScript	PhoneGap JavaScript	MoSync JavaScript	MoSync C, C++	DragonRad
Accelerometer		✓	✓		
Barcode	✓	✓			✓
Bluetooth	✓	✓		✓	
Calender	✓	✓	✓	✓	✓
Camera	✓	✓		✓	
Capture		✓	✓	✓	✓
Compass		✓	✓		
Connection		✓	✓	✓	
Contacts	✓	✓			✓
Device	✓	✓	✓	✓	✓
File	✓	✓	✓	✓	
Geolocation	✓	✓	✓	✓	✓
Menu	✓				✓
NFC	✓	✓	✓	✓	✓
Notification	✓	✓	✓	✓	
Screen Rotation	✓	✓		✓	
Storage	✓	✓	✓	✓	✓