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Setup, 1st App. / Testing via a Device

Requirements: Flash Builder 4.x Android SDK

Adobe® Flash® Builder® 4.6 software is an Eclipse™ based development tool that accelerates the delivery of exceptional, high-performing mobile, web, and desktop applications using ActionScript® and the open source Flex framework.

There are a few points to note when it comes to mobile applications and how they differ from desktop and web applications.

- The interaction patterns for actions on mobile devices are different on touchscreens than the traditional mouse manipulated devices.
- There is limited real estate on mobile devices, hence the UI (user interface should be carefully thought of).
- Mobiles CPU (Central Processing Unit) and GPU (Graphic Processing Unit) performance is limited when comparing it other devices such as tablets, desktops and notebooks.
- Different platforms have different hardware capabilities and UI conventions. For example, Android smartphones typically have a hardware Back button, whereas iOS devices do not.
- Limited memory on mobile devices can mean that applications may quit and restart to conserve memory. The OS has full control of this.

With these points in mind, building a mobile application is not just a matter of scaling down the front end to fit a screen size.

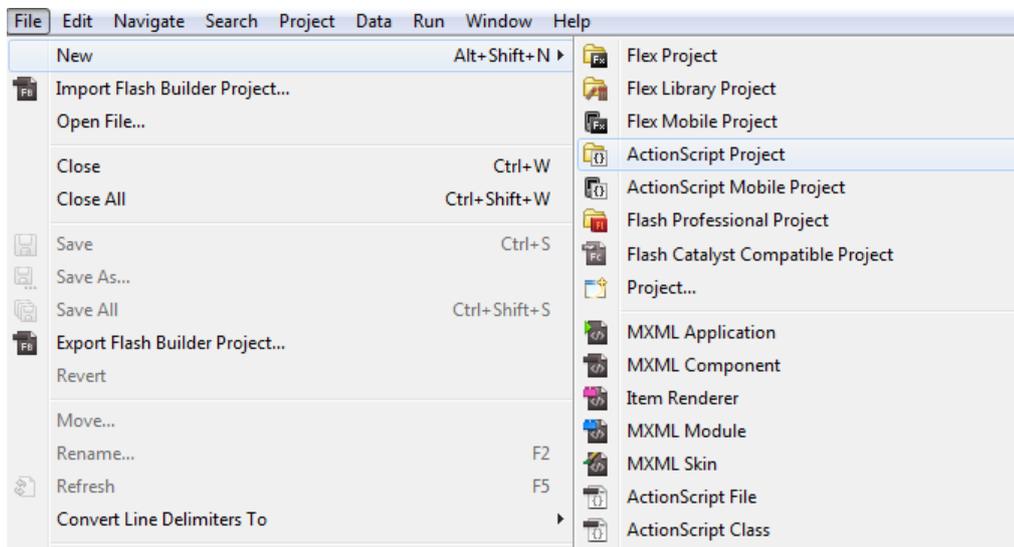
Installing Flash Builder 4.x from Adobe.com

Before starting you will need to ensure that you have Flash Builder 4.x installed on your machine. As a student you have free access to this (<http://www.adobe.com/devnet/edu.html>). You can also go to the adobe.com website and search for Flash Builder Education. Following this you will be provided options as a student to download the latest Flash Builder application.

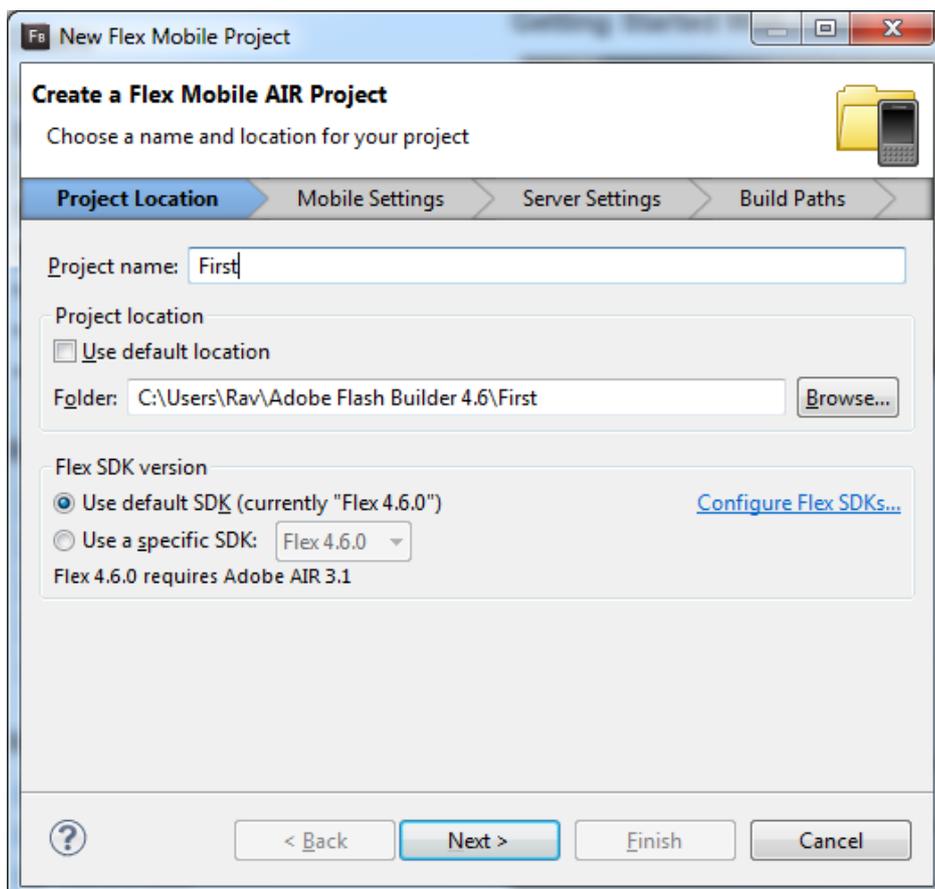
Please note you will need appropriate documentation to prove that you are a student. The download and installation is fairly simple.

Flex Mobile Project

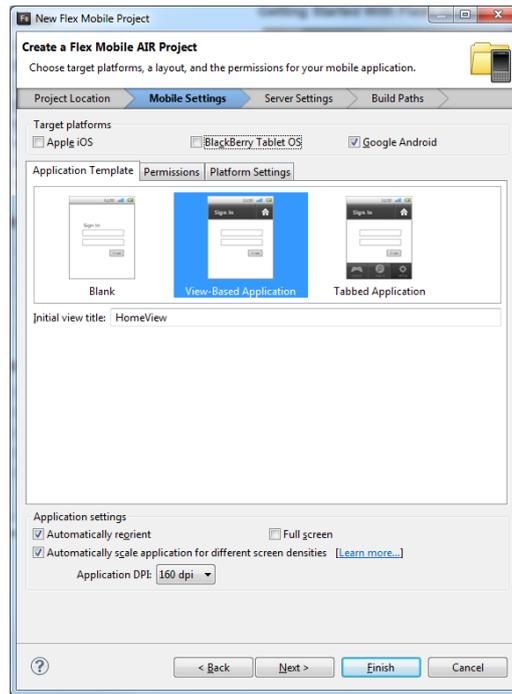
- Now let's start by launching Flash Builder.
- Select File > New > Flex Mobile Project



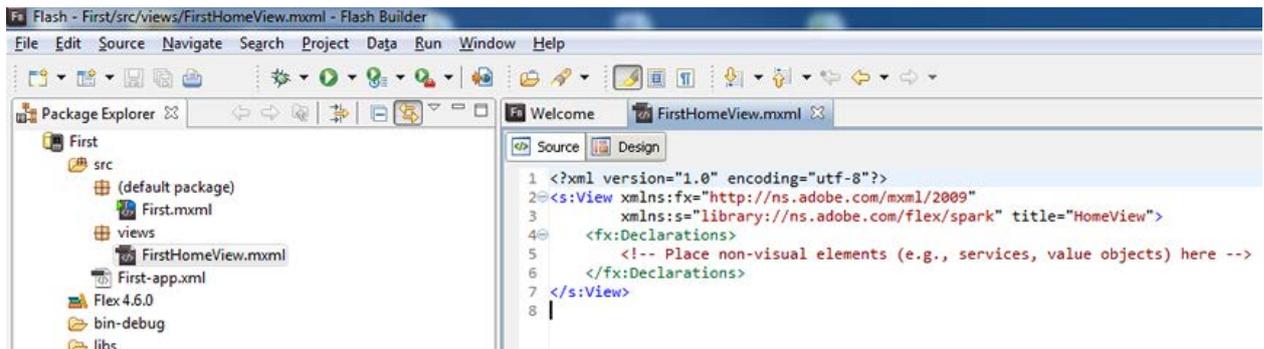
- Give your project a name in my case I'm calling it "First"



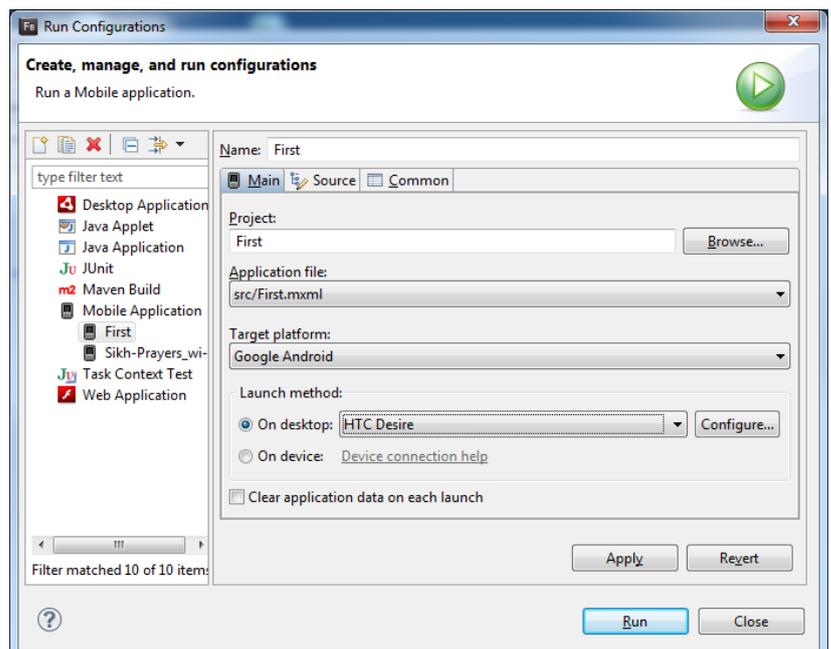
- Next select Google Android, and a View Based Application, click on Finish



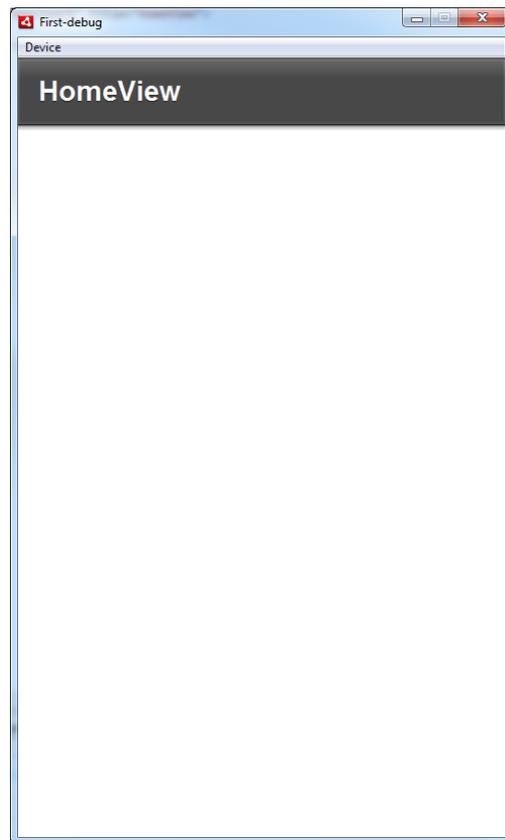
- You should next see the Flash Builder IDE, along with the default structure of the initial code.



- This app may be tested by pressing Ctrl-F11, you will need to select the target platform as "Google Android" followed by the device type i.e. HTC Desire. Finally click on Run.



- The output should be similar to that shown below:



Mobile App in 5 Minutes – Hello World Mobile Project

Hello World: <http://www.adobe.com/devnet/flash-builder/articles/hello-world.html>

Testing your App on a Google Device

Though you can test your basic app via emulators and Flash Builder, there is no comparison to testing it on an actual device. The following tutorial/video walks you through as to how you can set up your Android device for testing and debugging your Apps.

http://help.adobe.com/en_US/flex/mobileapps/WSa8161994b114d624-33657d5912b7ab2d73b-7fdf.html#WSa8161994b114d624-33657d5912b7ab2d73b-7fdc

Note: Drivers for Android devices can be located under **Adobe/AdobeFlashBuilderx/utilities/drivers/android**

Final Code – A two View Basic App

HelloWorldHomeView.mxml

```
<?xml version="1.0" encoding="utf-8"?>
<s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
        xmlns:s="library://ns.adobe.com/flex/spark"
        title="HomeView">
    <fx:Declarations>
        <!-- Place non-visual elements (e.g., services, value
objects) here -->
    </fx:Declarations>
    <s:VGroup width="100%" height="100%" verticalAlign="middle"
horizontalAlign="center">
        <s:Label text="Hello, World!"/>
        <s:Button label="Continue"
click="navigator.pushView(MyNewView)" styleName="next"/>
    </s:VGroup>
</s:View>
```

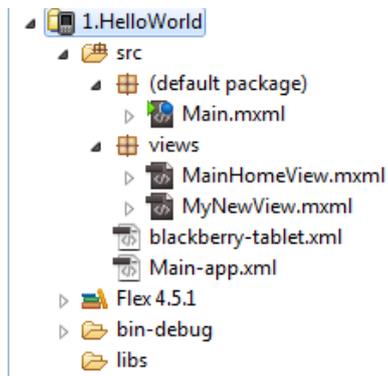
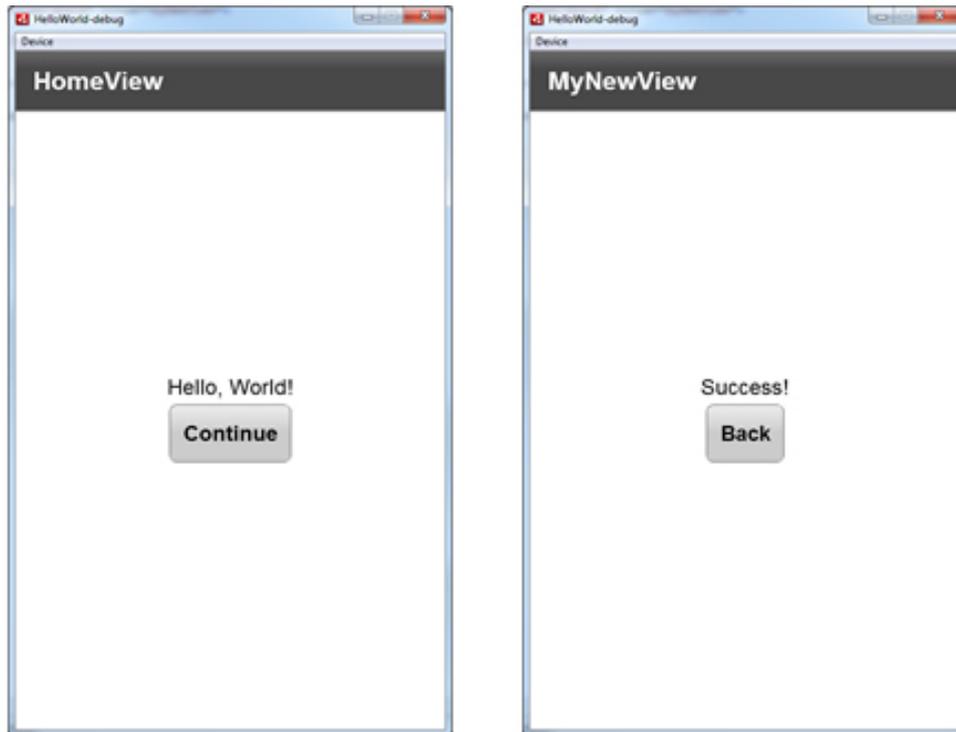
MyNewView.mxml

Select file New > mxml component

```
<?xml version="1.0" encoding="utf-8"?>
<s:View xmlns:fx="http://ns.adobe.com/mxml/2009"
        xmlns:s="library://ns.adobe.com/flex/spark"
        title="MyNewView">
    <fx:Declarations>
        <!-- Place non-visual elements (e.g., services, value
objects) here -->
    </fx:Declarations>

    <s:VGroup width="100%" height="100%" verticalAlign="middle"
horizontalAlign="center">
        <s:Label text="Success!" />
        <s:Button label="Back" click="navigator.popView()"
styleName="back" />
    </s:VGroup>
</s:View>
```

Note: <s: refers to a Spark Component - The Spark components is basically a library that makes makes building, modifying, and designing custom components a lot easier and far more intuitive.

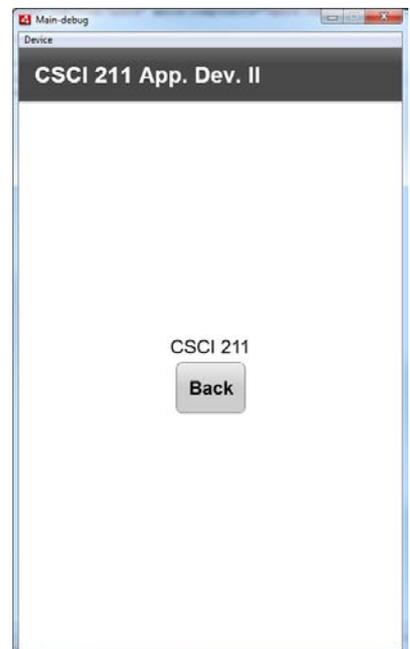
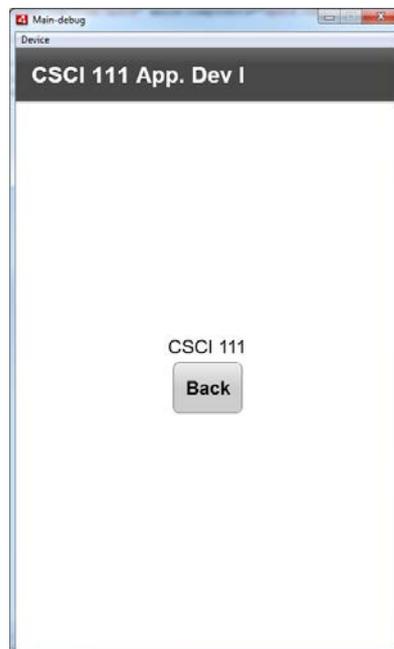
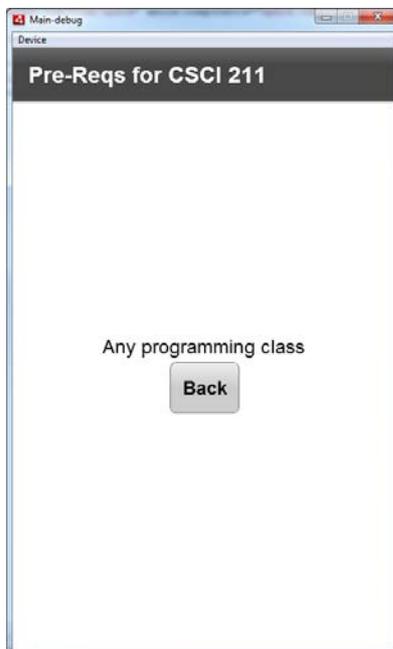
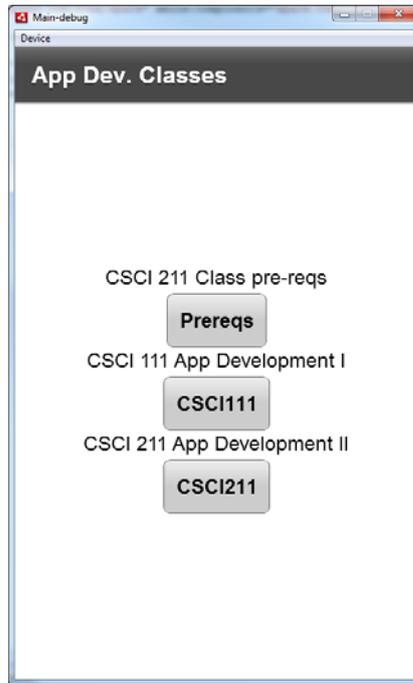


Importing and Exporting Projects (fxp files)

Projects can be saved as a bundle or more commonly exported, and later imported into Flash Builder. In order to export a project click on *File > Export Flash Builder Project*. The project .fxp file may be imported via *File > Import Flash Builder Project*

Exercise

You are required to enhance the existing Hello World with the following hierarchy of pages.



Exercise

Clicking on any object in the design view, will provide a number of properties to be adjusted as well as css styles associated to that project. You are required to enhance the last project with the addition of images; the output should look similar to that shown below:

