

Module1Lab1 Guide

In this lab exercise, The fundamentals of developing and running an Android application are practiced. Firstly, The IDE used, Eclipse is explored for the basic details like the names and purpose of different panes, accessing basic tasks from the eclipse menu etc. Then, Android specific menu item SDK manager is explored to understand how to manage different versions of SDK in the development process. The emulator of an android device is called AVD, and the menu option AVD Manager is explored to practice the tasks related to emulator like creation of a new emulator(AVD), setting various options in creating an AVD etc.

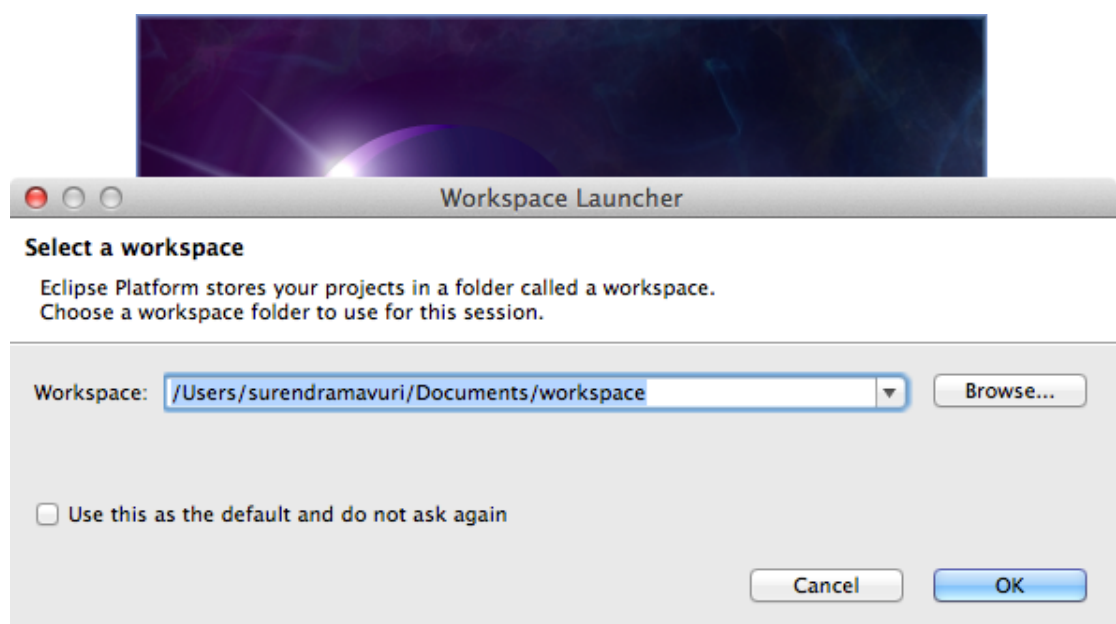
Finally, the first android app is created in Eclipse and executed using the AVD created in the previous step.

Learning Outcomes

1. Get started with Eclipse IDE
2. Practise managing and updating the SDK versions using SDK Manager
3. Create new emulators(AVD) and setting their properties in AVD Manager
4. First Android app execution using AVD

Instructions

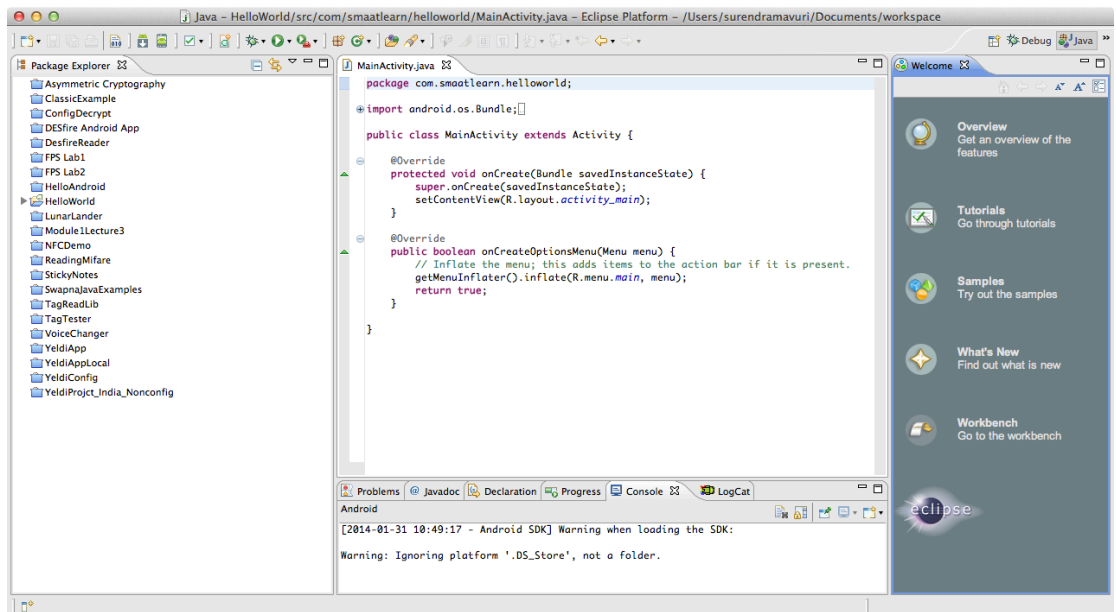
1. Open Eclipse from Dock or from Spotlight.
2. Eclipse asks for the location of **workspace** to start with.
(Workspace is the physical location at which an eclipse project is saved.)



3. Select the required workspace folder in the path and click **OK**.
4. Eclipse starts loading the required libraries.

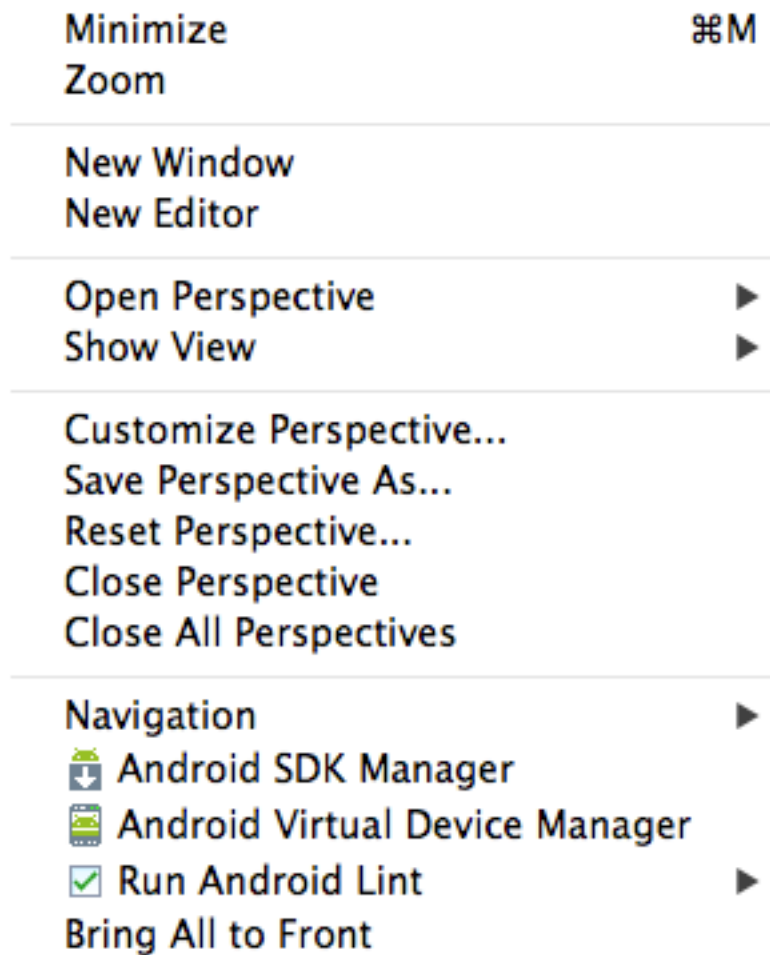


5. Eclipse opens with **Java Perspective**.

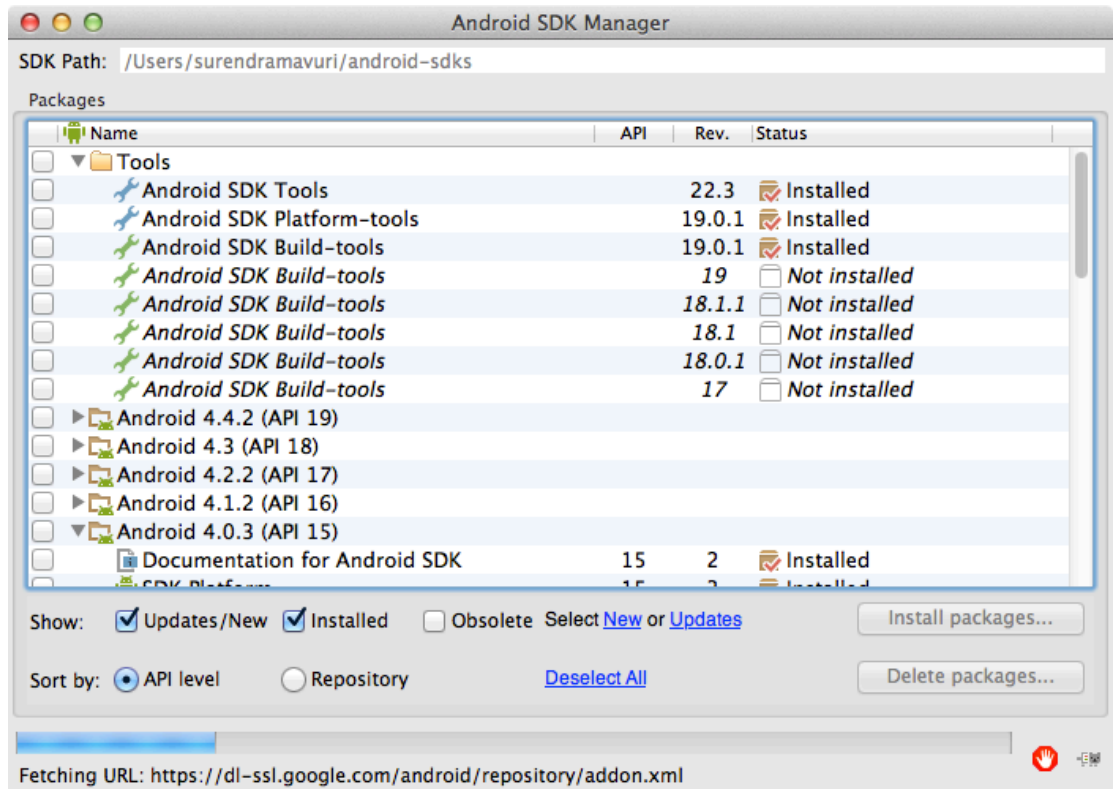


Explore various menu items and perspectives etc.

6. Open **Window** menu item and observe the list that pops-up as below.

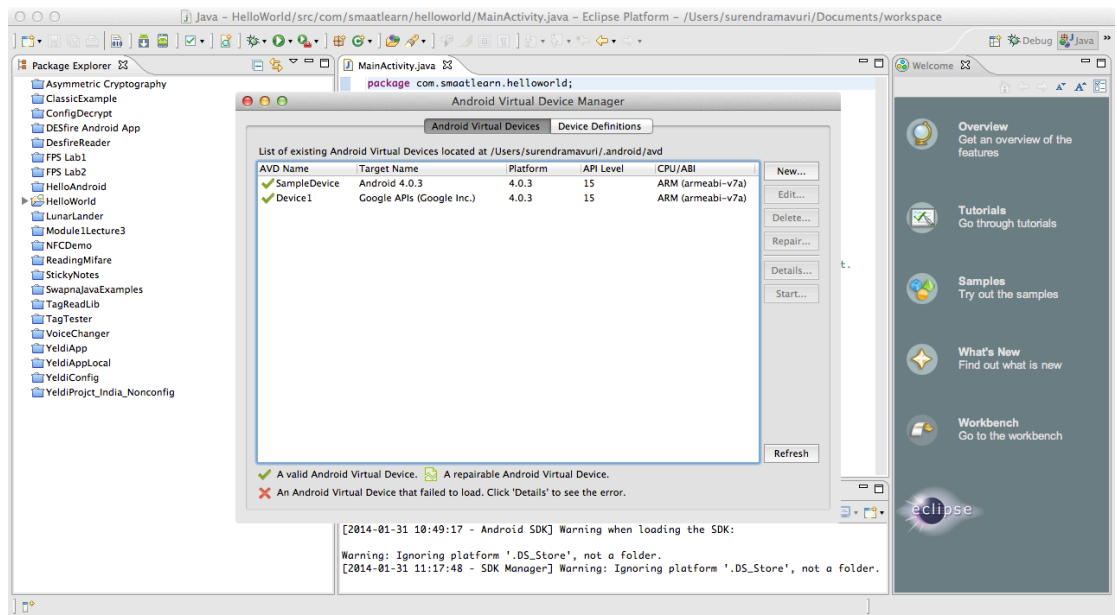


7. Click on **Android SDK Manager**. The SDK Manager opens as below.

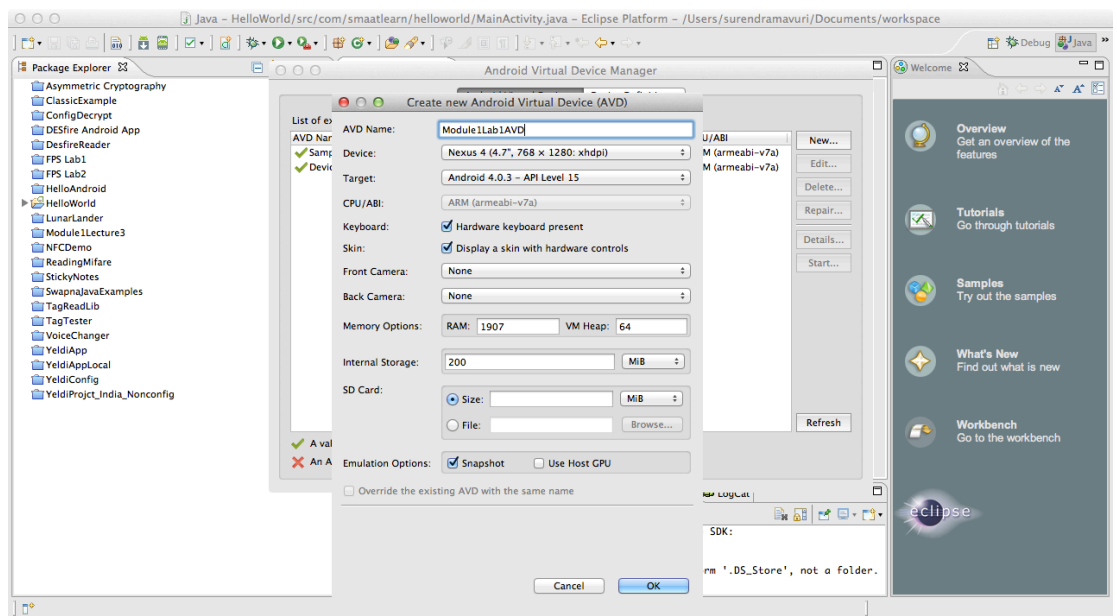


Click on the checkboxes as required and click '**Install packages**' to install different versions of SDK.

8. Click on **Window -> Android Virtual Device Manager** to open AVD Manager window.

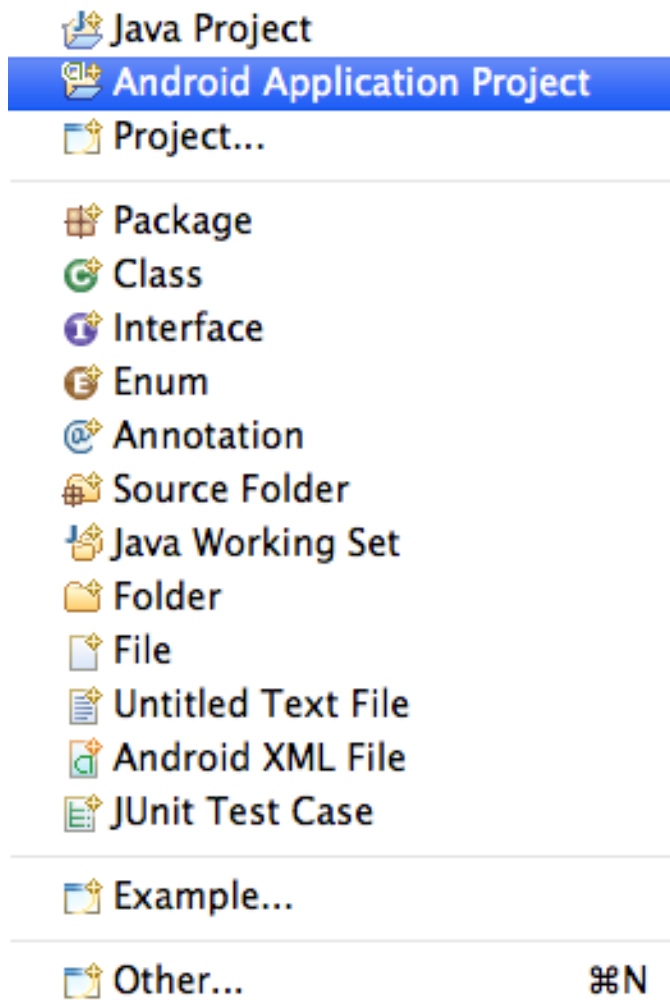


9. Click 'New' and create a new AVD.

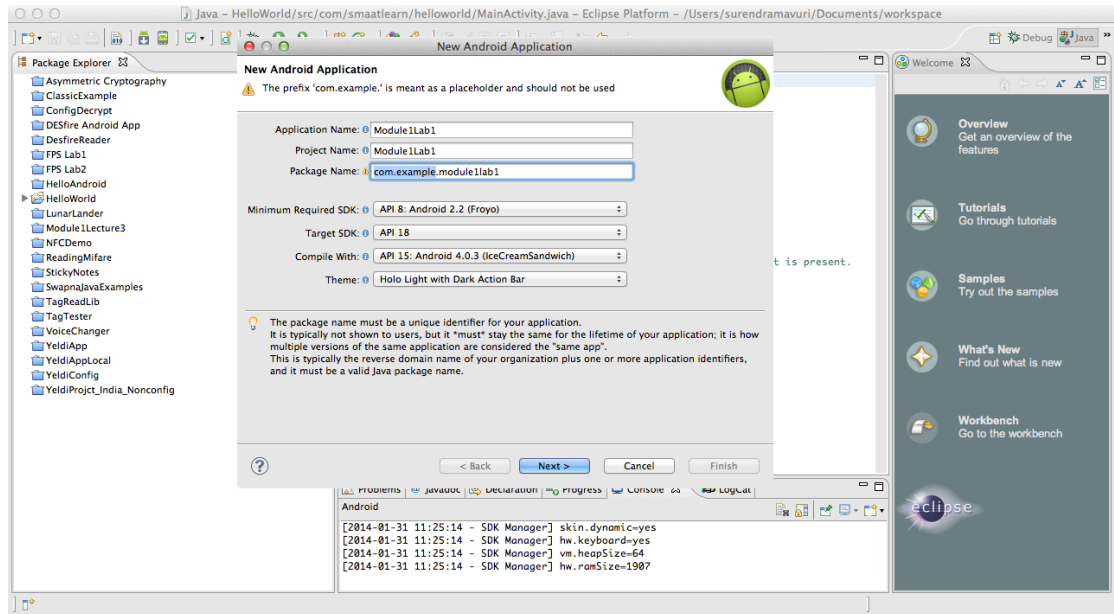


By now, Since required SDK version is installed and a AVD(emulator) is created, the first Android app can be created and executed in the AVD.

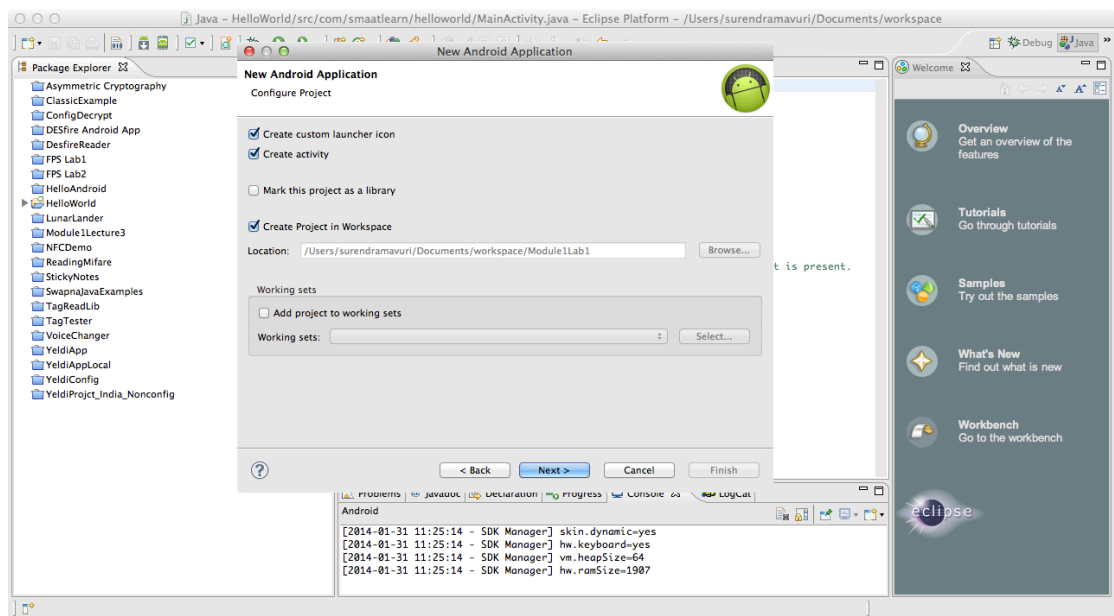
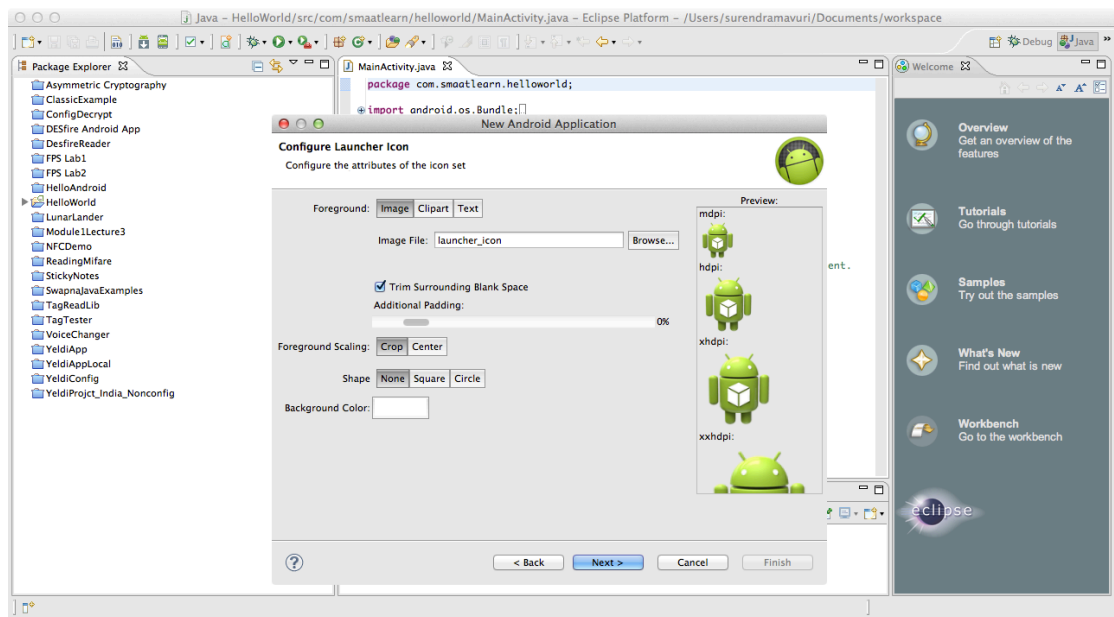
10. In Eclipse, click **File -> New -> Android Application Project**.

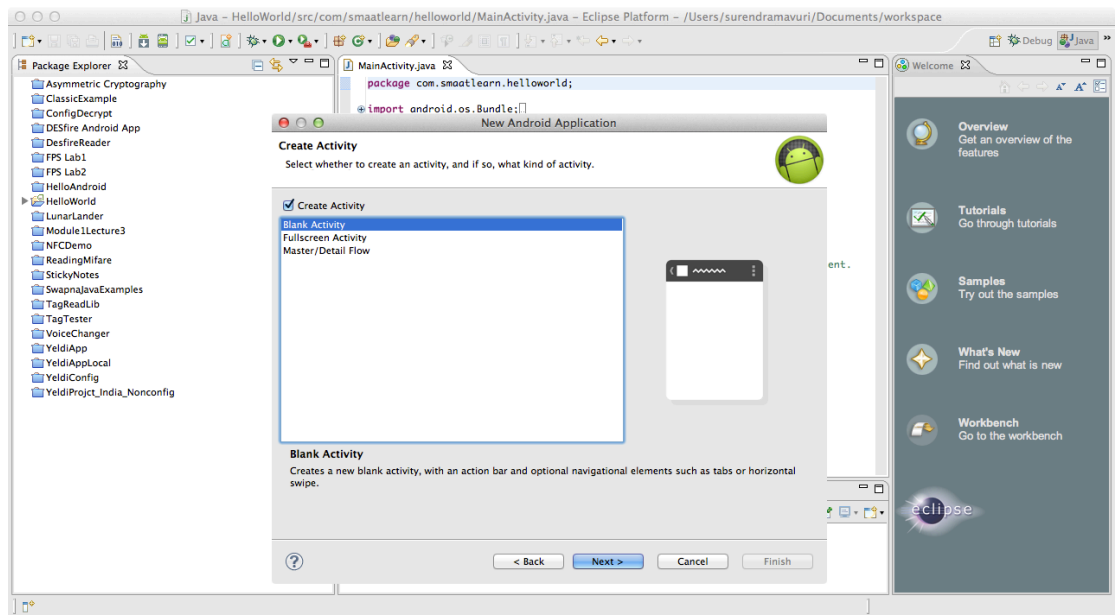


11. In the window that appears as below, give the **Application Name** field, the value '**Module1Lab1**'. Observe the next two fields automatically being filled with corresponding values. Change the field **Package Name**, as **com.smaatlearn.module1lab1** as **com.example** is a placeholder text. Leave the rest of the field as it is, but explore different options in the dropdown menu of each.

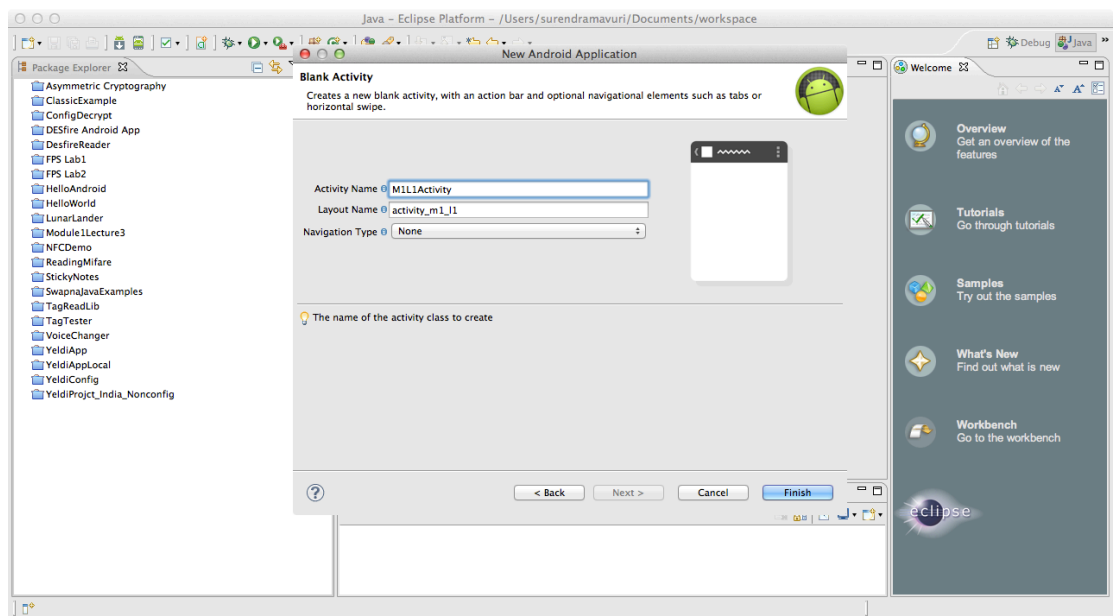


12. Click **Next** and proceed to next window screens.

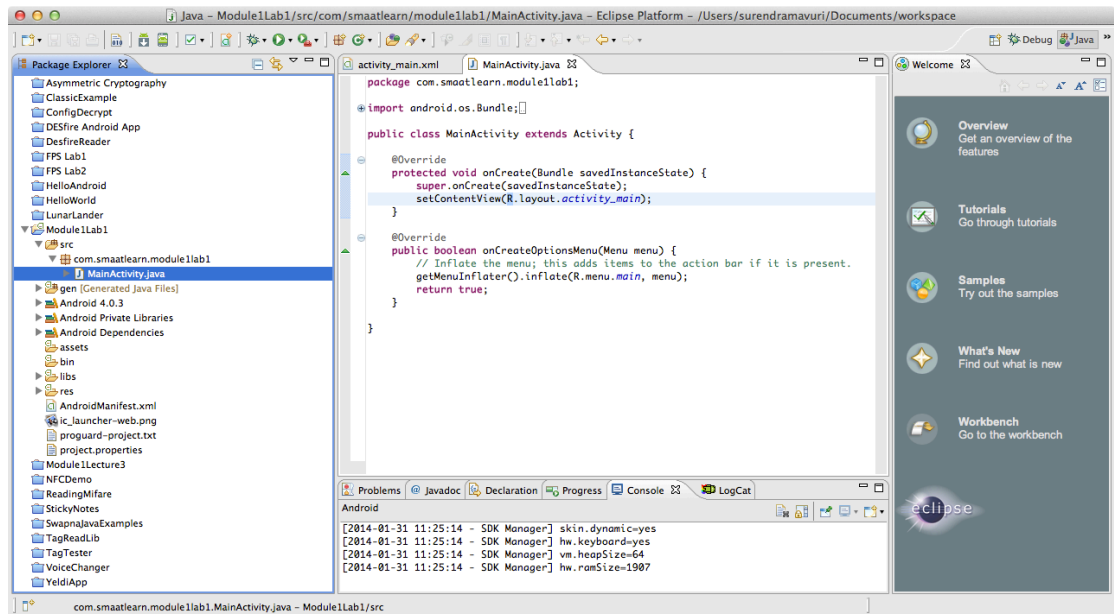




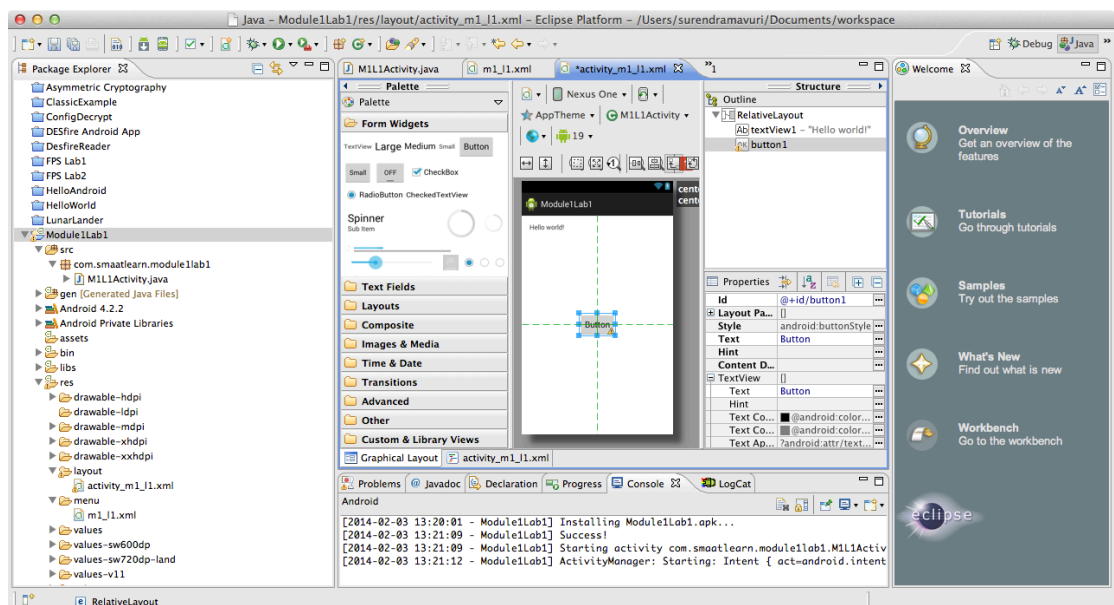
13. Change Activity Name to **M1L1Activity** and click **Finish**.



14. The project gets created and opens up with the file **M1L1Activity.java** in the editor pane.



15. Click on **res/layout/activity_m1_l1.xml** in the Package Explorer.



16. Drag a **Button** from **Form Widgets** on to the layout and position at the center of the screen using the grid lines as shown above.
17. Save the changes.
18. Run the app using **Run** command from the menu or pressing $\uparrow \text{⌘} \text{F11}$

