



School of Science

CSP2108 Introduction to Mobile Application Development

Workshop: Hello, World!

The aim of this workshop is to introduce you to the tools you will use in this unit for creating and testing mobile applications. It is assumed that you can use a simple text editor, and are familiar with simple tasks such as starting programs, clicking on buttons, saving files, and generally operating a personal computer using a GUI (graphical user interface).

In this unit, we will be using Corona SDK (software development kit) and Edit++ (or you can use another text editor of your choice). Instructions will be given for development on a Windows PC, but only small adjustments would be needed if you wish to work on an Apple Mac.

By the end of this workshop, you should be able to:

- Start the Corona SDK
- Create a new project
- Write code for a simple app
- Test the app in the Corona SDK simulator

In later workshops, you will learn how to deploy your apps onto an actual mobile device (or you can look ahead and figure out how to do this yourself – your textbook walks through this process in Chapter 1).

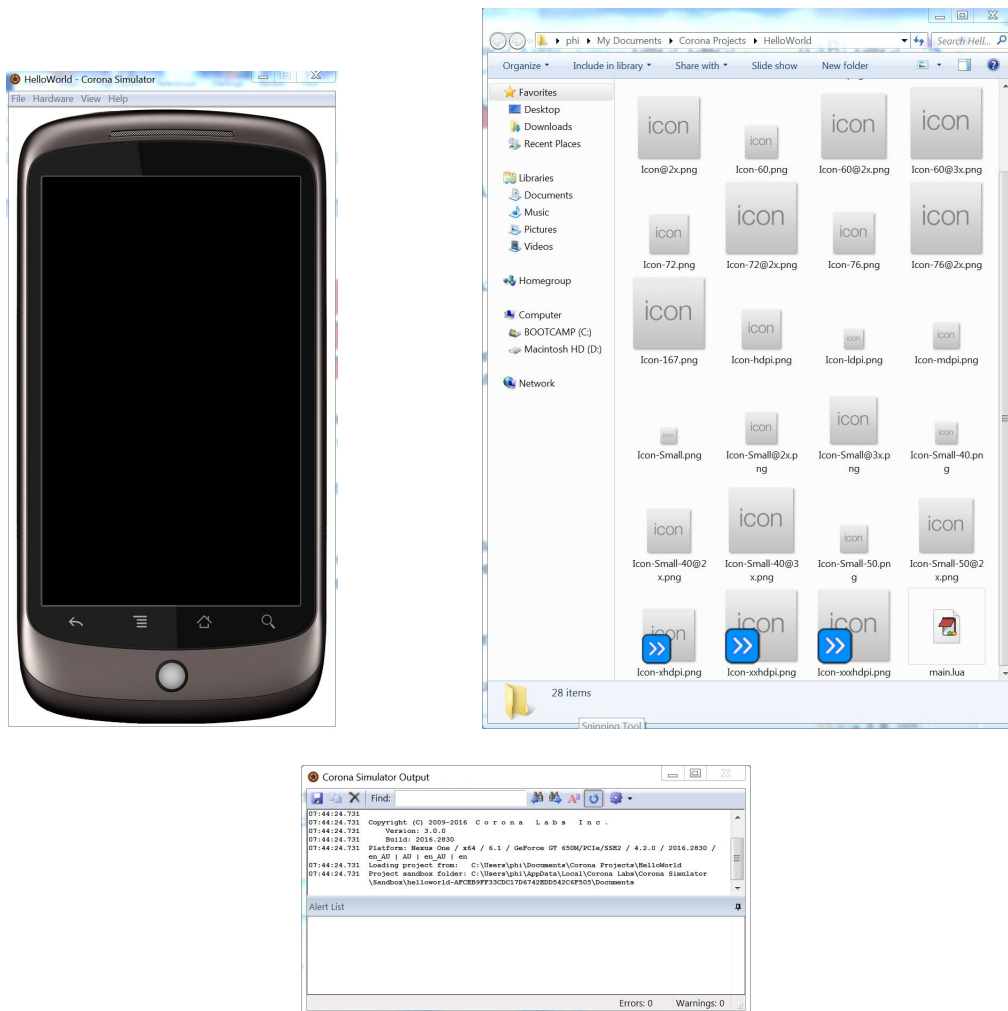
Instructions

If you are following these instructions in the Lab, then Corona SDK and all the other tools will have already been set up for you, ready to use. If you are working at home, you will first need to install these tools for yourself. Please follow the instructions provided for this on Blackboard (in a separate document).

1. Start the Corona Simulator (either double-click the Corona icon on the desktop, or select it from the Start menu).

Note: The first time you use Corona, you will need to *register* as a Corona developer (go to the Corona Labs home page at coronalabs.com and click on Login to do this). Once you are registered, you can use your login details allow you to use Corona.

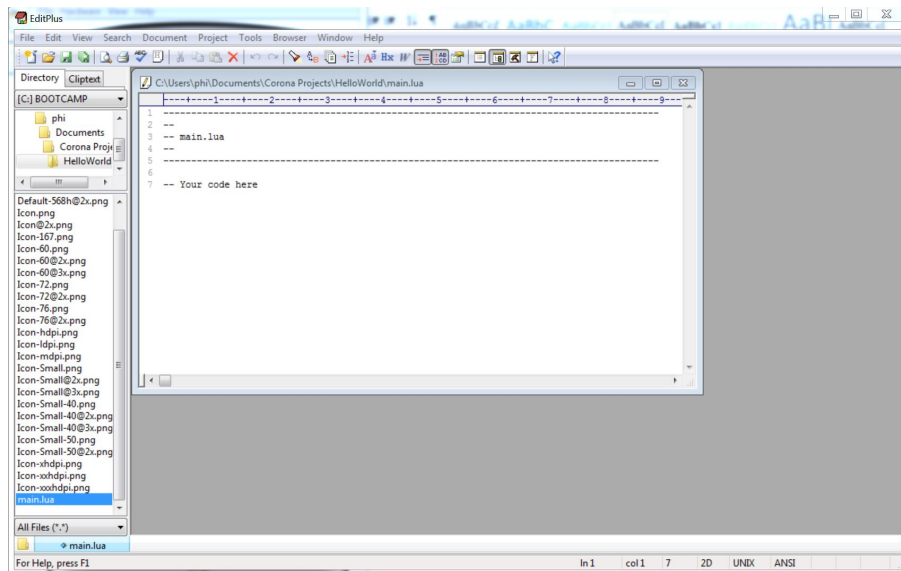
2. Select New Project from the File menu.
3. In the Project Name field, enter *HelloWorld* (or whatever you want to call this project) and select the Blank template option. Click Next.
4. Now navigate to where you want the project to be saved. A folder on your network drive or on the desktop might be suitable. Click Create. You should see these windows:



5. The project folder that you just created will contain image files for your app's icon, and a text file called *main.lua*.

Click Open in Editor from the File menu in the Corona Simulator window or double-click on *main.lua* in the Explorer window. When you do this, a text editor window should

open, showing the contents of *main.lua*. This is where you will enter the code for your application.



Type in

```
print( "Hello, World!" )
```

replacing the line “—Your code here”. This is your first *Lua* program!

6. To try it out, you first have to save the file *main.lua*, and then relaunch the project by selecting Relaunch from the File menu in Corona (or this may happen automatically when you save the file).

Corona will now run the app and execute the *print()* command.

You will not see anything printed in the Corona Simulator window – instead it will be in the Corona Simulator Console window (if not, recheck your work – you may have mi-spelled something, or forgotten a closing quotation mark or parenthesis, for example. Fix the problem and redo the save and relaunch steps).

7. The *print()* command is very useful when you are writing and testing code. But you want to get something displayed on the Simulator window, right?

To do this, replace the *print()* command with the following

```
display.newText( "Hello World!", 160, 240, "Arial", 60 )
```

and save and relaunch as before.



We will learn what each part of this command means as the unit goes along, but for now, here are a few words to explain

- This command will put the text “Hello, World!” on the display screen in the Simulator window. If the program is run on a real device, it will appear on the device’s display screen.
- The font “Arial” will be used, with font size 60.
- The centre of the text will appear at location (160, 240) on the display screen.

What does this last thing ... (160, 240) ... mean? It means that the centre of the text will be 160 units from the left and 240 units from the top of the display.

8. Add another command to your program (on the next line of *main.lua*) to display the text “This program was written by ***”, where you replace *** with your name. Make the text appear underneath “Hello, World” on the screen.

You will have to change the number 240 to something larger, to make the text appear further down the display screen. You may have to change the font size to make it fit.

9. **Before you go!** Make sure that you save your work somewhere secure (you need to save the whole project folder/directory). A folder on the desktop in the teaching laboratory is not a secure place to keep things.



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10. That's it for this first workshop, but if you would like to explore some more, work through the "Corona in 5 minutes" tutorial at

<https://docs.coronalabs.com/guide/start/helloWorld/index.html>

and/or the walkthrough on pages 12-16 of your textbook.