

**CMPSC 591**  
**Principles of Mobile Applications**  
**Fall 2014**

**Laboratory Assignment Two: Using Conditional Logic in Automation Tasks**

## Introduction

Tasker is described as a “total automation system for Android” and is often one of the reasons why people purchase Android-based tablets and mobile phones. You can learn more about Tasker by visiting <http://tasker.dinglich.net/>. As you will see, the creator of Tasker described it as “an application for Android which performs Tasks (sets of Actions) based on Contexts (application, time, date, location, event, gesture) in user-defined Profiles, or in clickable or timer [sic] home screen widgets.” What are some ways in which you could use Tasker to automate the use of your tablet?

## Creating Notifications in Tasker

Take some time to explore the “Profiles”, “Tasks”, “Scenes”, and “Vars” tabs at the top of the screen in Tasker. Using Tasker’s in-application help system and any online resources that you find, write one or two sentences about the meaning and purpose of each tab. Now, go to the “Tasks” tab and use the plus sign in the bottom-right corner to create a new task called “Display Notification”. Next, find the Notify action and customize it so that it will display a message. Once you have completed this step, you can click the arrow in the bottom-left corner to run your task. You can further tailor your notification task by changing the displayed message and/or the icon.

## Using Conditional Logic in Tasker

Instead of having to load Tasker and click the run button every time you wanted to run your task, it would be better to ensure that it automatically runs when a specified condition is true. To this end, please switch to the “Profiles” tab and click the plus sign to create a new profile. Next, pick a category from the pop-up menu that will describe the context for your new profile. For instance, you could specify that it is a certain time of the day or that the display unlocked event just took place. Finally, you should add the “Display Notification” task to this profile. Do you now see a green arrow indicating that “Display Notification” will run when your specified context is true? Please see the instructor if you are not able to complete these steps or have other questions.

Now that you have finished programming your first automation task, you should test it to ensure that it works correctly. For instance, if you indicated that “Display Notification” should run when the screen is unlocked, then lock and unlock the screen and see if the notification appears. Once you have finished experimenting with your first task, you should implement at least two others, for a total of three automation tasks. Each of the tasks that you implement should display a notification when the specified condition(s) are true. Students are encouraged to develop profile contexts that contain multiple conditions that are joined by a plus sign representing the “logical and” operator.

To complete the assignment, you should turn in signed printouts of the: (i) list of at least six automation tasks that you could implement in Tasker, (ii) description of the four tabs in Tasker’s main screen, and (iii) screen shots and descriptions of the behavior of three automation tasks.