

MAD Final

Instructions:

You have an entire class period to develop the following Android app. You can use any reference material you find helpful. It is suggested that you start at the first task and work down the list. The tasks are listed in an order such that they can be implemented after the previous ones. The goal of this final is to test your technical proficiency so focus on getting each task working. Add additional complexity and aesthetics at the end, time permitting. I highly suggest creating multiple versions of your project (duplicate your project folder in the Finder) so you have a version saved after each task. Post your completed project to github at the end of the final. (You can post more than 1 version if an earlier version worked but you want me to see the progress you made on a later non-working version).

Create an app based on the mock-up provided that builds your favorite ice cream treat and then suggests the best ice cream place in Boulder for that flavor of ice cream.

1. Build your favorite ice cream treat 30 points
 - a. TextView for heading
 - b. Button to generate ice cream and write to the textview
 - c. Textview to display type of favorite ice cream treat
2. Add a spinner so the user can choose their flavor 15 points – 5 points for the UI control (layout and string resource), 10 points for writing the flavor to the textview
 - a. death by chocolate, salted caramel, cookies and cream
3. Add an image view that is set based on the ice cream flavor 15 points
4. Suggest the best ice cream shop in Boulder based on the ice cream flavor
 - a. Generate ice cream shop suggestion 10 points
 1. Death by Chocolate: Glacier
 2. Cookies and Cream: Sweet Cow
 3. Salted Caramel: Fior di Latte
 - b. Button to show the suggested ice cream shop in a new activity 30 pts

Requirements:

- Use string resources for your UI element text
- Use any kind of layout you want (Relative/Linear or Constraint)

Extra credit:

Add additional UI controls. 10 points each – 2 points for the UI control (layout and string resource), 8 points for writing the value to the TextView

- a. Toggle button – cup or cone
- b. Radio group – ice cream, frozen yogurt, gelato
- c. Check boxes – toppings: sprinkles, hot fudge, nuts
- d. Switch – dairy free
- e. EditText – name your ice cream treat

Implement the functionality in step 3a in a custom Java class 10 pts

Explicit intent – load the web site of the ice cream shop 10 pts

- Glacier <http://www.glaciericecream.com/>
- Sweet Cow <http://www.sweetcowicecream.com/>
- Fior di Latte <http://fiordilattegelato.com/>

Create screen layouts that look good and are easy to use on phone screens in landscape as well. 10 pts

Add an activity that shows the ice cream shop on a Google Map 10 pts