CS478: Software Development for Mobile Platforms

Project #2

Due time: 9:00 pm on 2/23/2015
Submit using Blackboard web site
Total points: 100
Instructor: Ugo Buy

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For this project you will design and code a new Android app that implements the following functionality. The main activity in the app displays thumbnail pictures of cars from various manufacturers in a grid layout. You are at liberty to choose the pictures from pictures publicly-available (and not copyrighted or otherwise protected) on the Internet. You are also at liberty to choose how to fit the pictures into thumbnails appearing in your grid view (e.g. whether to scale the picture or not, etc.) Make sure that thumbnails are separated by thin spaces uniformly on all four sides. Also, size the thumbnails appropriately, e.g., using 3 or 4 columns in portrait mode. You must include enough thumbnails that a user must scroll the grid view vertically on a Nexus 5 phone in order to see all the thumbnails.

Each thumbnail in the grid view supports two kinds of functionality. First, a simple click on a thumbnail brings up a new activity that shows the entire picture of the selected car on the entire device display. The user can return to the grid view by selecting the "back" soft button on the phone. A long click on any thumbnail will bring up a "context menu" showing the following two options for the car under consideration: (1) View the entire picture (similar to a simple click); (2) Show the official web page of the make and model for the selected thumbnail in a new activity (e.g., a picture of a Honda Civic would bring up the Civic's web page in the official Honda web site).

Hints. You may enable long clicks on the grid view programmatically by sending the message *setLongClickable()* with an appropriate argument to the grid view object. Use an appropriate implementation of the static interface *OnItemLongClickListener* to specify actions in response to long clicks on grid view items.

Implementation notes. For this project use a Nexus 5 device running the latest Android platform available (API 21—Lollypop). Design your gridview in such a way that it will display optimally in portrait mode, and reasonably well also in landscape mode. You are not required to provide backward compatibility with previous Android versions.

You must work alone on this project. Submit the entire Eclipse project as a zip archive using the submission link in the assignment's page on Blackboard. No late submissions will be accepted.