# SEG2105. Introduction to Software Engineering

## Project: Android Development (20%)

## Fall 2016

**Professor:** Miguel Garzón

**Instructions**

1. Pick one of the 2 options below and develop a mobile application for Android.
2. Project will be done in teams of **3-5 people**.
3. Only one team member needs to submit the deliverables via Blackboard, but make sure all team members are identified (name and student number) on your cover page or README file.

**OPTION 1 - COOK HELPER**

The **CookHelper** application selects and displays recipes that contain the ingredients you have.

**With this type of tool you can:**

- Add, edit or delete recipes
- Search for recipes based on **ingredients** AND the **category** of the recipe (Main dish, starter, dessert appetizer, drink, sauce) OR the **type** of food (Italian, Greek, Chinese, Colombian, etc)
    - Search queries must be done using Boolean operators (AND, OR, NOT). Example: Tomato AND onion AND avocado
- Obtain results according to relevance (e.g. 3/5 ingredients found in recipe).
- Access a comprehensive set of easy to follow instructions.

**Similar projects:**

- http://www.recipepuppy.com/
- http://www.recepty.cz/
- http://supercook.com/
- http://en.wannacook.net/

**OPTION 2 – Your Own Idea**

If you have an interesting idea and you have are a group of skilled android developers, you can develop the application you desire. You will need to write a proposal and send it by **email** to me by **September 10th**. Only 5 groups will be selected.

**Specification**

Your application must be written in Java and built using the **Android Studio 2.1**. You should compile your project against the earliest possible SDK version allowed by the API methods you are using. By the end of the semester, you must implement and submit a working application based on the specifications.

**Academic Honesty**

All work that you do toward fulfillment of this course's expectations must be your own unless collaboration is explicitly allowed (e.g., by some problem set or the final project). Viewing or copying another individual's work (even if left by a printer or stored in a public directory) or lifting material from a book, magazine, website, or other source-even in part-and presenting it as your own constitutes academic dishonesty, as does showing or giving your work, even in part, to another student.

**Deliverables**

| Deliverable | Description | Due date |
|---|---|---|
| **1. Requirements and Use cases (2 points)** | - Document containing at least 20 functional requirements and 5 non-functional requirements.<br>- 3 fully-described uses cases (no need of a Use Case Diagram) | **November 2nd** |
| **2.UML diagrams (8 points)** | - 1 UML class diagram (domain model)<br>- 3 UML sequence diagrams<br>- 1 UML state machine diagram | **November 18** |
| **3. User Interface (2 points)** | - A nonfunctional UI of the application | **November 25** |
| **4. Application (APK) and final report (8 points)** | - Source code of your application<br>- **APK**<br>- Final report | **December 7** |
| **DEMO** | | **Last week of classes** |