

Final Project

1 Logistics

- Groups

This project is group work. The group size is minimum 4 students, maximum 5 students.

Set up your groups on Markus by July 15, 2015 11:50pm.

If you fail to set up your group by the specified deadline, your instructor will assign you in a group and you will not be able to change it.

Working alone or in groups of size less than 4 is not an option.

Think well before joining a group - once you are in, you cannot change your group.

A good part of the evaluation (6%, included in the Sprint III) comes from peer evaluation process.

Specifically, this 6% is divided as follows: you earn 2% by filling up peer evaluation forms for your peers. You earn 4% based on how your peers evaluate you.

- Sprint I: CRC Model, Files and Data Structures, Walkthrough scenarios.

This phase is worth 4% of your final mark.

Team evaluation meeting during Lab 8 (July 21, 8pm).

Due Date: July 21, 2016 11:50pm.

- Sprint II: Implementing the back end of your application.

This phase is worth 4% of your final mark.

Team evaluation meeting July 28, time TBD.

Due Date: July 28, 2016 11:50pm.

- Sprint III & Release I: Implementing Front-End of your application. Submit peer-evaluation forms.

This phase is worth 12% of your final mark. 6% comes your project evaluation, the other 6% comes from the peer evaluation process as explained above.

Due date: Aug 4, 2016 11:50pm.

2 The Client Request

A company has contacted you to build a Java shopping application for its customers. The company normally maintains its data in its servers using relational database technologies, however as a proof of concept, the first release of the required software will store and make use of the data stored on your development PC, in csv (comma separated value format).

After an initial discussion with the product owner and a representative of clients, you have agreed to implement the following features at the end of Sprint III, which coincides with the Release I of your software:

- The application must present a GUI front-end to its end users where they can select the desired options using a menu.
- Any user should be able to browse the merchandise that is available for sale. Each item available for sale should be presented as follows to each user: an image of the product, a product ID, a product description, a product category, and a price in CAD.

Note: A good source of copyright-free images is Wikimedia Commons:

<https://commons.wikimedia.org/wiki/Category:Images>

- The initial menu should offer: **User Registration** and **User Login** and **Browse** the available merchandise.
- A registered user may be of two categories: administrator and shopper.
- A logged in administrator must be able to accomplish the following tasks:
 1. Maintain product categories (a product category has a category code and a category description, for example: 01 Books). Specifically, an administrator must be able to add new categories, or generate a screen report of existing categories. Deleting or changing a category is not a good idea. (Why ?)
 2. Maintain products. That is, add a new product, change the photograph, description, price or available quantity of existing products. Deleting a product is not a good idea (why?).
 3. See a list of products and their availabilities sorted by category or by availability in increasing or decreasing order.
- A logged in shopper must have a shopping cart where the shopper must be able to add products in various quantities as long as those quantities are available.
- A logged in shopper should have a Checkout button so the content of his shopping cart would generate a shipping invoice added to shopper's list of invoices. The available quantity of the purchased items must be deducted from the available quantity.
- A logged in shopper must be able to see a list of his purchases.