

**Cairo University**  
**Faculty of Computers and Information**



# **Software Engineering II**

## **Project Description**

### **2020**

Version 1.0

### **Project Team**

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## Introduction

- In this project you will design and implement a non-trivial software system. You will practice the concepts you learned during the course.
- Project will be based on agile practices with at least 5 sprints
- In each sprint we will focus on some requirements from the requirements backlog. We will design and implement these requirements
- In each sprint each team is required to deliver the following
  - Software design specification document contains the following
    - Proposed architecture
    - Proposed class diagram
    - sequence diagrams for each scenario
    - Check the SDS document with the project description
  - Sprint document
    - Meeting minutes for the sprint starting meeting.
    - Meeting minutes for the sprint standup meetings.
    - Meeting minutes for the spring retrospective meeting.
    - Trello board screenshot
    - Git repository
    - Check the Sprint document with the project description
- Project consists of 5 phases each phase represents a sprint (may be we will have more than 5 sprints)
- Your project customer (whom you can check requirements with) and coach is your TA.
- For more information about the different sprint terms mentioned above, and the overall agile software development process, please refer to this link  
<https://www.mountangoatsoftware.com/agile/scrum/resources/overview>

## Project Logistics

- 1- Students from the same lab/TA will be divided into groups; each group consists of 3, 4 members.

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- 2- Your team will register their names with the TA and **you CANNOT change teams** after registration.
- 3- Academic honesty is assumed. All work submitted must be original and written by your team (Not copied from students, the net, outside sources). Plagiarism will be penalized.
  - Soon, you will be our colleague and we will be proud of you.
  - Professional conduct and practice is essential in your career.

## Project Phases:

Phase	Deliverables	Deadline	Mark
Sprint 1	Design and implement Sprint 1 user stories (mentioned below)		

## Project overview

The project will be an online store platform. This platform will help customers to buy or explore products and small stores (businesses) to market for their products and get more customers.

This platform is much like Amazon store but here our platform will focus on both online and onsite stores and both small business and big businesses.

In this project we will focus on building a reliable API for our store.

This platform consists of 6 main modules.

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## 1- Users management module

To use the platform, you should register in it. The user can register as a normal user (buyer) to explore or buy products or as a store owner. The store owner has a store (real onsite store) and will register in the platform to put products and market for it.

The platform also should contain administrator users who should be able to manage brands or stores data also the administrator should be able to provide voucher cards to the store.

## 2- Stores

Store owners can add one or more stores in the platform. Each store should have a name, address and any data that verify the store existence. However the user can add online store which will offer only online products (we will talk more about online products in the next module) and in this case the users doesn't need to enter store address.

So we have 2 types of stores normal (onsite) stores which offer some products and online stores which offers only online products.

## 3- Products

Any product in the system should have a name, price, category, brand name (you can think about more attributes for the products). Also, any product has a type, and there are 2 types of products normal products and online products. Normal products just like any product you may expect (PCs, TVs, ..., etc) but online products like online software, online games, voucher keys.

Please be noted that administrator only should be able to add new products to the system and store owner can add products (part of platform's products) to his store. The store owner can suggest adding new products to the platform

## 4- Brands

A Brand is a type of products manufactured by specific company (or group of companies). Each product should have a specific brand and the administrator should be able to add new brands to the platform. The store owner can suggest adding new brands to the platform

## 5- Payments

The platform should support different types of payments. The initial payments types are pay on delivery (pay the price when the product arrived to the customer), visa payments or voucher cards.

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## 6- Statistics

The platform should provide some statistics to the store owner. The target of these statistics is to provide a vision about the market to the store owner. These Statistics like

- 1- Number of users explore his products.
- 2- Number of user buy his products.
- 3- The most ordered products.
- 4- The most ordered brands.

You can think about more statistics that will be useful for the product owner

## Requirements backlog

- 1- Develop a web service to let the user able to register in the online market. Each user should be identified by username or email. Each user should provide a password which will be used later to login
- 2- Develop a web service to let the user able to login into the online market by providing username/email and password.
- 3- Develop a web service to be used to list all current registered users.
- 4- Develop a proxy security middleware for authorization and authentication.
- 5- Develop a web service to let the user able to add a new store to the online market. The online store information should include the store location (onsite or online), store name, store type (sports, entertainment, clothes, technology, ..., etc) and any other relative information. The store will not be added until the online store administrator accepts it.
- 6- Develop a web service to let the administrator able to add new products to the system. The products info should include product name, price range, category, ...,etc. Once the product is added it should be available to the store owner to add it.
- 7- Develop a web service to let the store owner (The user who had a store) able to add new products to a store (if he had one). The product should be existed in the system (added firstly by the system administrator). The store owner should determine the available quantity he had. The store owner should put a price to the product within the price range of this product (specified previously by the store administrator)
- 8- Develop a web service to let the user able to buy a product in the system. The buying process start by selecting the target product (which the user wants to buy), select the required amounts, select the shipping address, agree on the agreement (if exist for the product), confirm the provided information

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## Sprint 1 stories

- 1- Develop a web service to let the user able to register in the online market. Each user should be identified by username or email. Each user should provide a password which will be used later to login
- 2- Develop a web service to be used to list all current registered users.

## Policy Regarding Plagiarism:

**Students have collective ownership and responsibility of their project. Any violation of academic honesty will have severe consequences and punishment for ALL team members.**

١. تشجع الكلية على مناقشة الأفكار و تبادل المعلومات و مناقشات الطلاب حيث يعتبر هذا جوهرية لعملية تعليمية سليمة
٢. ساعد زملاءك على قدر ما تستطيع و حل لهم مشاكلهم في الكود و لكن تبادل الحلول غير مقبول و يعتبر غشا.
٣. أى حل ينشأه مع أى حل آخر بدرجة تقطع بأنهما منقولان من نفس المصدر سيعتبر أن صاحبيهما قد قاما بالغش.
٤. قد توجد على النت برامج مشابهة لما نكتبه هنا أى نسخ من على النت يعتبر غشا يحاسب عليه صاحبه.
٥. إذا لم تكن متأكدا أن فعلا ما يعد غشا فلتسأل المعيد أو أستاذ المادة.
٦. فى حالة ثبوت الغش سيأخذ الطالب سالب درجة المسألة ، و فى حالة تكرار الغش سيرسب الطالب فى المقرر.

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