

**CS251 – Software Engineering I**

**Easily sell, buy, exchange products  
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# Team

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# Document Purpose and Audience

# This document explains an easily buy, sell and exchange products online system. It describes the features that are provided by this system and functional and non-functional requirements needed from a user to use the system.

# Audience of this document system administrator, stockholder, testers and developers.

# Introduction

## Software Purpose

This software enables users to sell and add their advertisements of their products, enables users to search for a certain product, filter all the products in the system and display results also he/she can buy this product from the advertisement provider and it also provides a communication between users to facilitate buying process.

## Software Scope

This software is an easily buy, sell and exchange products online system which facilitate the process of buying, selling and exchanging products between customers by make a channel between customers and is interested in customer interest and satisfaction.

More specifically, this system require from the customer to register on the website using his e-mail or Facebook account. The user needs a name, email if he signup with his email. If he sign up with FB, his mail only is needed and name will be got from FB.

Each advertisement will have title, image, description, and place and will be divided into categories such as car, home and job offers.

The user can add his personal Information on an advertisement creation like name, mobile number and other notes.

The car category has two subcategories (Honda and Opel) and job offers category has three subcategories (IT field, accounting field, mass communication field).

Each advertisement related to car category has a price, number of Kilo Meters, engine capacity and Model and for home advertisements it has area, address, price, number of rooms, and number of toilets and for job offers there is salary, years of experience, job type (part time, full time, and intern) and the required skills.

The products can be filtered by categories, subcategories and place.

## Definitions, acronyms, and abbreviations

|  |  |
| --- | --- |
| **Term** | **Definition** |
| System | A group of related parts that move or work together. |
| Advertisement | An announcement in a public medium promoting a product, service, or event or publicizing a job vacancy. |
| Software Requirements Specification | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document. |
| Product | An article or substance that is manufactured or refined for sale. |
| Category | A collection of things sharing a common attribute |
| Chatting list | List that contains friends or near people to enable us to talk with them in a friendly and informal way. |
| Feedback | Helpful information or criticism that is given to someone to say what can be done to improve a performance, product, etc. |
| Review | A formal assessment of something with the intention of instituting change if necessary. |
| Credit card | It is a payment card issued to users as a system of payment. |
| Audience | The assembled spectators or listeners at a public event such as a play, film, concert, or meeting. |
| Administrator | A person responsible for the performance or management of administrative business operations |
| Customer | He is the recipient of a good, service, product, or idea, obtained from a seller, vendor, or supplier for a monetary or other valuable consideration. (sometimes known as a **client**, **buyer**, or **purchaser**) |
| User | He is a person who interacts with a system, typically through an interface, to extract some functional benefit. |
| Developers | He is a person concerned with facets of the software development process. |

# 

# Requirements

## Functional Requirements

1. Sign up:

The customer must register in the system by his email or Facebook account to ve able use the system features.

1. Sign in:

If the user is registered previously he can sign in to the system using his username and password or he can sign in if he has a Facebook account.

1. Edit profile information:

The user can update his personal information that the entered during registration.

1. Add an advertisement:

To add an advertisement, the user can post a free advertisement and enters the product basic information and its category and his data wanted to be shown with the ad.

1. User edits an advertisement:

The user can update any detail in his advertisements list and save it.

1. User removes an advertisement:

The user can remove any of his advertisements.

1. User searches for a product:

The user can search by the category of the product or by subcategory or place.

1. User chooses an advertisement:

The user can select any advertisement after he finished his search and can view its details and provider details added on advertisement creation.

1. User communicates with the provider:

The user can send an offer to the provider to complete buying process or by exchanging products if the provider allows this option.

1. Feedback:

The user can send his feedback to the administrator in a form provided by the system.

1. Log out:

When the user wants to exit the system, the user will log out from his account.

## Non Functional Requirements

|  |  |
| --- | --- |
|  | **Details** |
| Arability | The system is available 95% when requested by end-users. |
| Performance | * Short response time. The loading time of the system must be smaller than 15 seconds. All other response times must be below 5 seconds. * Update data in a database should be updated for all users accessing it within 1 mille second. |
| Security | * Users haven't an access to see the system users and their details and all ads posted by a specific user or the saved lists for a specific users or chat with users * The access permissions for system data may only be changed by the system’s data administrator. |
| Accessibility | * The user can access the system from different devices such as mobiles tablets and pc's. |
| Implementation | * Programming language. The system must be implemented in HTML, CSS, JavaScript, PHP and MySQL. |
| Usability | The user is dealing with this system with ease. Users can register on the site by selecting sign up and enters personal information and can also register via an Email address on Facebook.  When the user enter invalid email or password, a message appears says that there is an error in the e-mail or password.  The user can with ease publish advertisements in connection with the things that he wants to sell, and can also search for ads then send an offer to provider and communicate with some via Chat them only for the completion of the buying process.  The user can remove any of his advertisements by going to his list and choose a certain advertisement then he can delete this advertisement then he save changes.  The user can edit any detail in his advertisements list by going to his list and choose a certain advertisement then all details of this product appears then the provider can edit details needed to be changed then he saves it.  If the user wants to change anything in his personal information, he presses on “My account” to move to another page contain all his information the he can edit any field then he saves his changes. |
| Quality | The user can send his feedback to the administrator in a form provided by the system. |
| Supportability | The ability to change the system to deal with new technologies or devices. |

# System Models

## Use Case Model

## 

## Use Case Tables

|  |  |  |
| --- | --- | --- |
| Use Case ID: | 1 | |
| Use Case Name: | Sign up | |
| Actors: | System user | |
| Pre-conditions: | User must have email to sign up. | |
| Post-conditions: | An account is created for this user in the system. | |
| Flow of events: | **User Action** | **System Action** |
| 1- User Enter his name, email and Password. |  |
|  | 2- System Verify user data. |
|  | 3- System create the account to the user. |
| Exceptions: | 1. If the user enters invalid email, system prints an error message. 2. If the user enters name exists, system prints an error message. | |
| Notes | The system will not create an account to the user unless he fills all the data. | |

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| --- | --- | --- |
| Use Case ID: | 2 | |
| Use Case Name: | Change user personal information | |
| Actors: | System user | |
| Pre-conditions: | 1. User must have an account. 2. User must log in with his account. | |
| Post-conditions: | Changes is saved by the system. | |
| Flow of events: | **User Action** | **System Action** |
| 1- User click on edit profile button |  |
|  | 2- System opens edit profile page. |
| User updates needed fields and chick save. |  |
| Includes: | 1 | |
| Notes | If the user does not update field, nothing will change. | |

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| --- | --- | --- |
| Use Case ID: | 3 | |
| Use Case Name: | add an advertisement | |
| Actors: | System user | |
| Pre-conditions: | 1. User must have an account. 2. User must log in with his account. | |
| Post-conditions: | 1. The advertisement is posted on the website. 2. The advertisement is added to his advertisements list. | |
| Flow of events: | **User Action** | **System Action** |
| 1- User chooses “add an advertisement” |  |
|  | 2- System goes to “new advertisement” page |
| 3- The user enters the new ad basic information and his data wanted to be shown with the ad and click save |  |
| Include: | 1 | |
| Notes: | If the user does not fill any field, the ad will not be added. | |

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| --- | --- | --- |
| Use Case ID: | 4 | |
| Use Case Name: | edit an advertisement | |
| Actors: | User | |
| Pre-conditions: | 1. user has active account 2. user login with his account. 3. user has advertisements list | |
| Post-conditions: | 1-user advertisement saved after updated it | |
| Flow of events: | **User Action** | **System Action** |
| 1- User open advertisements list. |  |
|  | 2- System display all advertisements in this list |
| 3- User Select advertisement from the list |  |
|  | 4- System display all information about advertisement |
| 5-user select save |  |
|  |  | 6-system save advertisements information after updated |
| Exceptions: | 1-if save data failed system display message to user to re-save the data | |

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| --- | --- | --- |
| Use Case ID: | 5 | |
| Use Case Name: | Remove an advertisement | |
| Actors: | User | |
| Pre-conditions: | 1. The user must sign in with his account 2. The user is going to his list that contains on all posted ads. 3. The user chooses a certain advertisement that he wants to remove it. | |
| Post-conditions: | 1. The number of his posted ads is reduced by one. 2. The system saves all the changes. | |
| Flow of events: | **User Action** | **System Action** |
| 1- The user enters the user name and his e-mail | 1- System Verify user data |
| 2- The user is going to the list. | 2- System shows all his posted advertisement |
| 3- The user selects an advertisement and removes it. | 3- System removes that ad and saves all the changes. |
|
| Exceptions: | 1. If the user enters invalid name or e-mail. 2. Message to user to re-enter the invalid input. 3. If the user wants to remove an advertisement of what was this advertisement has been removed. 4. System shows to user a message contains that this ad is not found. | |
| Includes: | None | |
| Notes and Issues: |  | |

|  |  |
| --- | --- |
| Use Case ID : | 6 |
| Use Case Name : | Search for a product |
| Actors : | User |
| Pre-conditions: | 1. The user must sign in with his account 2. The user selects the category of the product he wants. |
|  | 1. The user fills the form that related to this product. |
| Post-conditions : | 1. The system will search for the data entered by the user. 2. If the system finds the product that user wants it then display all advertisements related to the user interest. 3. If the system is not finding the product that user wants it then display a message to user that contains that this product is not found. |
| Flow of events : | |  |  | | --- | --- | | User Action | System Action | | 1. The user enters the user name and his e-mail | 1. System Verify user data. | | 1. The user selects the category of the product he wants. | 2- System views the form related to this category. | | 1. The user fills the needed data to search with. | 3-System will search for the data and returns if this product is found then display all ads that related to it or this product is not found. | |
| Exceptions : | 1. If the user enters invalid name or e-mail. 2. Message to user to re-enter the invalid input. 3. If the user is not selecting the category. 4. System can't find the product that he wants. |
| Includes : | Chooses an advertisement |

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| --- | --- |
| Use Case ID : | 7 |
| Use Case Name : | Chooses an advertisement |
| Actors : | User |
| Pre-conditions : | 1. The user must sign in with his account. 2. The user should search on an advertisement that he wants. |
| Post-conditions : | 1. The system views all this product information and 2. The system views information of the advertisement provider. |
| Flow of events : | |  |  | | --- | --- | | User Action | System Action | | 1. The user enters his name and his e-mail. 2. The user chooses an advertisement. | 1. System verify user data.  2. System views all product information and information of the advertisement provider. | |
| Exceptions : | 1. If the user enters invalid name or e-mail. 2. Message to user to re-enter the invalid input. |
| Includes : | None |

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| --- | --- | --- |
| Use Case ID: | 8 | |
| Use Case Name: | communicate with the provider | |
| Actors: | User | |
| Pre-conditions: | 1- user has active account 2- user login with his account. 3-user searched for the product 4-user select advertisement after he finished his search 5-user views advertisement details and provider details added on advertisement creation. | |
| Post-conditions: | 1-message with offer sent to seller | |
| Flow of events: | **User Action** | **System Action** |
| 3- User Select communicate with seller |  |
|  | 4- System display message box |
| 5-user sends message to seller with his offer then wait until seller respond |  |
| Exceptions: | 1-System display error message if the offer message not arrives to seller | |
| Includes: | Search for product , chooses an advertisement | |
| Notes and Issues: |  | |

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| --- | --- | --- |
| Use Case ID: | 9 | |
| Use Case Name: | Send feedback | |
| Actors: | Actors , Administrator | |
| Pre-conditions: | 1- User has active account 2- user login with his account. | |
| Post-conditions: | 1-adminstrator receives feedback message | |
| Flow of events: | **User Action** | **System Action** |
| 1- User Enter his feedback. |  |
|  | 2- System receives user feedback message then send it to administrator |
| Exceptions: | 1-System display error message if the feedback message not arrive to administrator | |
| Includes: |  | |
| Notes and Issues: | //no response from administrator to user about his feedback message | |

# Ownership Report

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| --- | --- |
| **Item** | **Owners** |
| Document Purpose and Audience | Shady Shalaby |
| Introduction | Sheref Shokry |
| Functional Requirements | Sherif Abd-Elateef |
| Non Functional Requirements | Sabry Rageb |
| Use Case Model | Sheref Shokry |
| Use Case Table | Sherif Abd-Elateef |