

Equivalent Exchange - Software Requirement Specification

Introduction

The following document is meant to show the requirements and the functionalities of the system.

Equivalent Exchange is a trading platform based on “bartering”: without the use of real money, users can buy or sell secondhand goods such as books, movies and videogames. In order to make trade fairer, the products are valued on an internal currency.

Users involved in an exchange can keep in contact and work out the details thanks to a proprietary messaging service.

Sellers experience on the platform is rated based on feedback from their “customers”.

The system allows the user to earn coins by offering services to the community and taking part in it, by writing guides and reviews on topics that are of common interest.

It is recommended to install Java(TM) SE Runtime Environment 15.0 or to use any browser that support html5 to be able to run Equivalent Exchange.

It is required to install MySQL server version 8.

Two systems that can be related to Equivalent Exchange in the Italian panorama:

1. **Acciobooks:**

- a. Common features: both systems allow to “exchange” secondhand books.
- b. Acciobooks advantages: allows to trade books using real money, you don't have to be an active member of the community.
- c. Acciobooks disadvantages: plenty of features (customizable profile, chat, unlimited negotiations...) are paid services.

2. **Subito:**

- a. Common features: both systems allow to buy or sell secondhand goods.
- b. Subito advantages: allows to trade a greater amount of things (clothes, different kind of objects, cars, apartments, jobs...).
- c. Subito disadvantages: bartering is not encouraged.

User stories

1. As a user I want to be able to add the articles I am interested in to a wishlist so that I can keep track of them.
2. As a user I want to be able to join a private communication channel with sellers so that we can discuss terms of sale and get more information about products' status.
3. As a user I want to be able to buy products without using real money so that I don't need to use a payment method.
4. As a user I want to be able to be rated by buyers according to the conditions of sold products and my availability (to people) so that I can earn future buyers' trust.
5. As a user I want to be able to search products in terms of their type (books, movies, videogames) so that I can see articles I'm interested in.
6. As a user I want to be able to sort the results of my search by: rising price, decreasing price, positive reviews and proximity of the seller to speed-up the search.
7. As a reviewer/tutorialist I want to be able to post images and videos in my review, so that I can be supportive for the community.

8. As a reviewer/tutorialist I want to be able to get access to the analytics of my reviews so that I can see if they are useful.
9. As a user, I want to be notified every time an article of my interest is no longer available, undergoes a price change or can be purchased with my current credit, so that I can stay updated on the status of the article.

Functional requirements

1. The system shall provide a way to write reviews or tutorials, allowing to add media contents (images, videos) and external links.
2. The system shall provide a private communication channel between the two participants in the sale agreement; when the agreement is concluded the users could choose to close the communication channel.
3. The system shall provide the user a personal wallet in order to keep track of the current credit and view the latest sales transactions carried out in chronological order, with the possibility of adding personal text notes to them.
4. The system shall provide the following filters that can be selected: recommended age, category, proximity of the seller.
5. The system shall sort the results of the search by: rising price, decreasing price, positive reviews.
6. The system shall be able to add different articles in a wishlist.
7. The system shall alert the user, with an internal notification, when an article:
 - a. Has been sold to another user.
 - b. Has changed price.
 - c. Is earnable with the current credit of the user.
8. The system shall provide a notification center that will show all the user's pending messages and the notifications of the system.
9. The system shall provide a rating system for evaluate the seller's account in terms of past users experiences.

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