***PlayStation Mall***

- Documentation -

1. ***Application functionalities***

„PlayStation Mall” is a web application where any user can sign up and buy various PlayStation merchandise. The admin is in charge with adding, editing and removing products from the website and the users are able to buy any product, as long as it is available. The products are split into three main categories, each with their own individual characteristics: consoles, games and accessories. The items can be bought at any time, unless the item is out of stock or if the admin is currently editing the item.

1. ***Entities and services***
2. **USERS**

Each user is described by the following attributes:

* ID: an unique identifier for each user;
* First Name: the first name of the user (forename, required);
* Last Name: the last name of the user (surname, required);
* Username: the name of the user, used for authentication (unique and required);
* Password: the password of the user, used for authentication (required);
* Email: the email address of the user, used for notifications (unique and required);
* Phone Number: the phone number of the user, used for notifications (unique and required);
* Address ID: an unique identifier for the user’s address (unique).

An user is able to create an account, browse and buy products, edit various account attributes, such as password, email and phone number, and the user can delete their account. The admin is also considered an user, but has higher privileges, since he can manage the products shown on the website.

1. **ADDRESSES**

Each address is described by the following attributes:

* ID: an unique identifier for each address;
* Country: the name of the country where the user lives (required);
* District: the name of the district/county where the user lives (required);
* City: the name of the city where the user lives (required);
* Street: the name of the street where the user lives (required);
* Number: the number of the street where the user lives; (required)
* Building: the number of the building where the user lives (can be noted with numbers and/or letters, optional);
* Entrance: the number of the building’s entrance (can be noted with numbers and/or letters, optional);
* Floor: the number of the floor where the user lives (the ground floor is noted with 0, while the other floors, from the first floor onwards, are noted accordingly, optional);
* Apartment: the number of the apartment where the user lives (optional);
* Interphone: the code for the interphone where the user can be called in order to grant access into the building to the courier (optional);
* Postal Code: the postal code of the user’s address (required);

The addresses are created at the same time with a new user, since it’s required to have an address before purchasing any product, and can be edited at any time after the user account’s creation. If the user wishes to delete their account, the linked address is also deleted.

1. **PRODUCTS**

Each product is described by the following attributes:

* ID: an unique identifier for each product;
* Name: the name of the product;
* Price: the selling value of the product;
* Quantity: the number of products available to sell;
* Description: a summary of the product’s characteristics;
* Status: the availability of the product that changes according to the quantity („Available” when the products are in stock, „Unavailable” when the products are out of stock).

The products can be added, edited or removed by the admin and they can be bought by the users. A product can’t be added, edited or removed by itself if it’s not specified which type of product will be added (console, game or accessory).

1. **CONSOLES**

Each console is described by the following attributes:

* ID: an unique identifier for each console;
* Product ID: an unique identifier for the related product (unique);
* Edition: the type of the console (standard, limited, or collector’s);
* GPU: the name of the graphics processing unit of the console;
* CPU: the name of the central processing unit of the console;
* Memory: the type and amount of RAM available in the console;
* Storage: the type and amount of storage available in the console;
* Sound: the types of sound available that can be outputted from the console;
* OS: the name of the operating system of the console;
* Media: the types of media that are accepted by the console;
* Color: the name of the console’s color.

The consoles are a type of product available for purchase by users. Its attributes can be edited by the admin and viewed by the user. When adding and editing a console, all the fields are required to be completed.

1. **GAMES**

Each game is described by the following attributes:

* ID: an unique identifier for each game;
* Product ID: an unique identifier for the related product (unique);
* Platform: the compatible console for the related game;
* Edition: the type if the game (standard, limited or collector’s);
* Genre: the name of the game’s genre (based on the type of gameplay);
* Game Mode: the ways the game can be played (single-player and/or multi-player, offline and/or online);
* Publisher: the name of the game’s publisher(s);
* Developer: the name of the game’s developer(s).

The games are a type of product available for purchase by users. Its attributes can be edited by the admin and viewed by the user. When adding and editing a game, all the fields are required to be completed.

1. **ACCESSORIES**

Each accessory is described by the following attributes:

* ID: an unique identifier for each accessory;
* Product ID: an unique identifier for the related product (unique);
* Type: the name of the accessory type (controllers, headsets, cables, etc.);
* Brand: the name of the accessory’s brand;
* Compatibility: the name(s) of the compatible console(s);
* Color: the name of the accessory’s color.

The accessories are a type of product available for purchase by users. Its attributes can be edited by the admin and viewed by the user. When adding and editing an accessory, all the fields are required to be completed.

1. ***Business requirements***
2. Any person can create an account, thus becoming an user;
3. Any user can edit their name, password, email, phone number and address;
4. Any user can delete their account;
5. Any user can browse the products on the website;
6. Any user can buy any product from the website;
7. The admin can add new products on the website;
8. The admin can edit the existing products on the website;
9. The admin can delete any product from the website.