

Servelet and Google AppEngine

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The assignment is about building a servlet based application.

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1. Application

1.1. What is it?

The application we build is a basic e-commerce web that allows you to buy Pokémon.

1.2. Use cases

Here follows the different functionality that a user has.

1.2.1. Security

- Login: a user has to log-in to the application to be able to perform a buy
- Logout: a user can logout from the application once he finished. His basket will be saved.

1.2.2. Core

- Add a Pokémon: a user can add a pokémon to its cart.
- See cart: a user can see the current state of his cart, with the price and the number of Pokémon he wants to buy.
- Remove a Pokémon: a user can remove a pokémon from its cart.
- Pay: A user can pay, to order its pokémons.

2. Architecture

2.1. MVC pattern

The web application follows the MVC-Concept (Model, View, Controller) storing the JSP-Sites in the view and the Classes for handling data in the model while having a controller that communicates between these two layers.

The controller is the main class of the webapplication, in this class all the different requests are handled, such as login, logout, adding an article to a cart, removing an article from the cart and paying an article.

In the JSP-view you can also find some insertions of code, mainly for traversing lists of data or for getting data from the session or data that was put into the request through the controller.

The Model has different classes for handling the data, such as a UserManager, which stores users with their corresponding login information and which is useful for verifying the login information. There is also a class Cart for handling everything concerning the cart of the user, such as adding/removing an article or getting the total price of the items in the cart. For this class there also exists a cartmanager which can restore a cart from a user who was previously logged in and didn't buy an article.

Additionally there is several session-data from the user, such as the nickname of the user, information if the user is logged in, and there is also the cart-object containing all the articles the user bought and the respective number of units.