

IN3046: Cloud Computing
Coursework - Specification of Application

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1) Requirements of Application

We are planning to develop a web-based application to manage a bookshop's inventory as part of the Cloud Computing module. As we are building a cloud application, we will use Amazon Web Services to carry out this implementation. The user can use either the ISBN or the book's name to search the inventory of the bookstore. Additionally, the user will have access to a link which provides additional details and pictures about the book. The administrator will receive login information so they can access the website to add and remove books.

2) Typical Users

The application is aimed at customers who would like to save a trip to the bookstore. Our application ensures they save time by checking if the book they want is in stock before they visit the bookstore. Our application also helps the bookstore's staff as they spend less time answering enquiries about the availability of a book. Users can access the bookstore's inventory worldwide if there is an internet connection provided.

3) Implementation

As previously stated, the application will be hosted using Amazon Web Servers S3 and the application will be a platform as a service (PaaS). To provide the user with a platform that is aesthetically pleasing, the user interface will be coded using HTML/CSS and the inventory for the bookshop will be stored using PHP/Cloud SQL.

The app engine will be responsible for hosting the application on Amazon servers S3. The browser will be able to connect to the app, which will be coded in PHP or HTML. The app engine will then take the input of the user or Admin and generate the necessary MySQL commands to retrieve or store the data in the Cloud SQL.

Below are two graphics representing this application.

Figure 1: Use case diagram for BookFinder

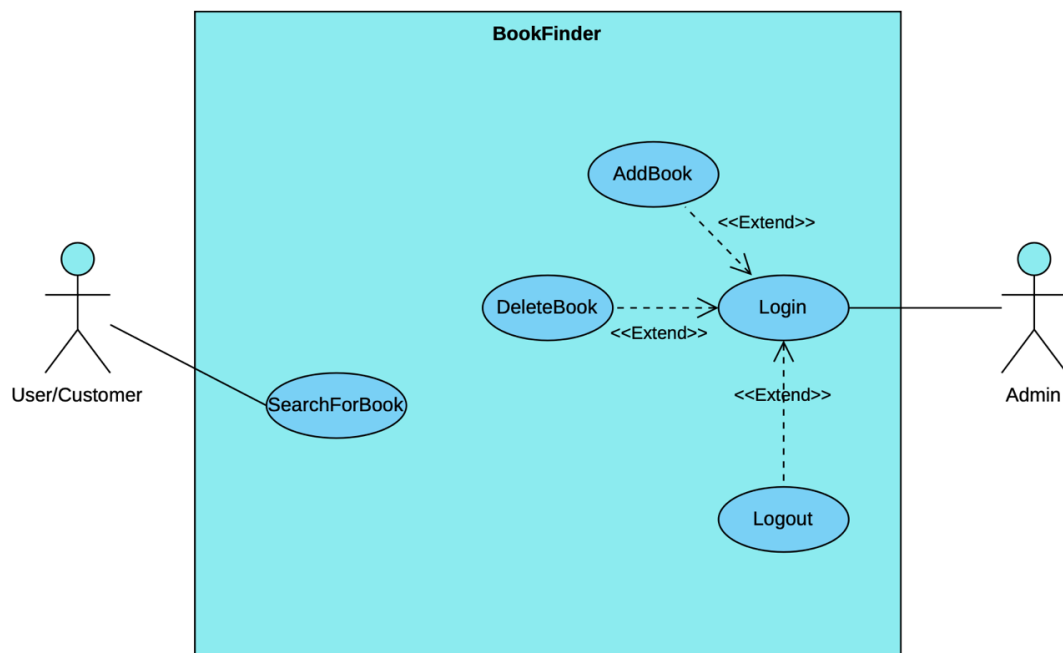


Figure 2: Er Diagram for BookFinder



4) Distribution of Work

To ensure that each team members have an equal share of the workload, we have divided the tasks as follows:

Ali Ay: Use case diagram, program the front end of the application and set up Amazon S3.

Abdullah Baboa: Er diagram, Coding back end and setting up Cloud SQL.

Yahye Farah: front-end/back-end programming.