Project Report

Team: DB3
Project: MedPortal

Background

Patients can use the internet to look up knowledge about medicines or illnesses. These instructions can be helpful at times, but they can also cause major problems. As a result, we decided to take our project in that direction and create a medical portal that will help patients find quality information about not only medicines but also doctors and medical centers.

Project Goal

The goal of this project is to develop patient-centered medicine and provide information about medicines and doctors, medical centers, pharmacies in the patient's city. We believe that the role of MedPortal in the development of patient-centered medicine can be realized through patient feedback. Moreover, patient reviews not only provide valuable feedback but also allow other patients to make the process of choosing more conscious and effective.

Implementation Details

On the way to implementation, we divide our project into 3 parts: frontend, backend, and database.

Frontend

Used: Bootstrap, JQuery, CSS

For the frontend side, we wanted to keep it simple and use known technologies, so that each member can understand and give feedback. We used Bootstrap to use the ready classes for creating a user-friendly web application, and JQuery mostly for star rating plugin RateYo!. There were no problems with styling even though we did not have big experience with frontend, even so, making a user-friendly web app was complex because we did not prepare any samples, how our project will look alike.

Backend

Used: Java EE

Due to fact that some members of our team had an Advanced Java EE course, we used this platform. We tried to use different patterns for the clarity and clearness of our code, so applied MVC, Factory pattern in the project. Interfaces and implementations of these interfaces could help us to prepare our query and retrieve data with collections.

Furthermore, services get that data and send it to JSP for displaying it. Also for connection to the database, we used a connection pool, that will take and release connections.

Database

Used: MySQL

Like in the frontend side, we choose MySQL because all three of us were familiar with this database. So we do not have a problem with DDL and DML queries, but we encountered problems when we started to plan the structure of our tables. We decided to create tables with fewer columns to make it easier to understand the structure. Eventually, we have over 20 tables.

Especially we spend more time on filling tables with data. We cannot find the ready appropriate datasets, so we decided to use real data(in tables like pharmacy, medicine and etc). For that, resolved to use web scraping technology, exactly java library jsoup. Sites like protabletky, prodoctorov, and iteka's HTML were parsed. However, for some tables, we created dummy data.