

CSP584 Final Project

Project Overview

Our project name is “KNNHealthCare” which is associated with 1 particular hospital named “KNN HealthCare”. We have developed a website named “KNNHealthCare” associated to this hospital.

The primary reason for developing this website is to ease the hassle of the patient visiting the hospital all the way and booking an appointment, finding the required medicines, making multiple visits to the hospital, thereby saving a lot of patient’s time preserving its mental state too.

Our “KNN HealthCare” website allows patient to find a doctor based on the specialty and book an appointment for the same as well as patient can purchase medicines from the medicine store and make an online payment saving patient’s precious time.

For our project or website, we are having 3 roles. i.e. Patient, Doctor and Medicine Manager.

Requirements

Following is the requirements that are implemented for each role.

- **Patient**
 1. Can search the doctors as well as the medicines in the search bar using AJAX and JQuery.
 2. Book an appointment.
 3. View the appointments made.
 4. Cancellation of an appointment.
 5. Receives the email after making an appointment on his/her email-id.
 6. View the prescription given by the doctor.
 7. Buy the medicines.
 8. Quantity field made dynamic using AJAX & JQuery before making the purchase.
 9. Make a payment for the medicines.
 10. Receives the email after making the payment on his/her email-id.
 11. Displays “out of stock” for the medicines if there are no medicines available to buy in a store because they have all been sold.
 12. Buy Now button is disabled if the product is out of stock.
 13. View the order placed and account information.
 14. Cancellation of order before 5 days of delivery date.

15. Write a feedback for the medicines as well as doctors.
16. View the feedback for the medicines as well as doctors.
17. Has a trending functionality which displays the top 5 best doctors in the hospital based on the feedback/review given & Top 5 specialties where maximum number of patients visited.
18. Can view the best deal matches for the medicines fetched from the twitter API (using Walgreens).
19. Can view the medicine recommendations in the carousel during making the payment.
20. Has "About Us" page where in general information regarding hospital is shown.

- **Doctor**

1. Checks the availability of medicines.
2. Can search the medicines in the search box using AJAX.
3. Writes the prescription for the patient.
4. Can view upcoming and visited appointments.
5. Can view its own profile & make changes to it.
6. Can only view medicine and another doctor feedback.
7. Cannot do write review for medicine and doctor and also cannot buy a medicine.

- **Medicine Manager**

1. Add, Update & Delete Medicines in medicine store.
2. Generates the inventory report & sales report on medicines.
3. Inventory report shows the available medicine count, bar chart on the medicines & available medicine count using Google visualization API, available medicines on sale & medicines with manufacturer rebate
4. Sales report shows the medicines sold and, total daily transaction
5. Can search the medicines in the search bar using AJAX.

Extra Functionalities:

1. For booking an appointment: specialty, doctor, doctor's visiting day is populated with the help of AJAX, jQuery and, Java servlets.
2. Email trigger after the patient makes the payment.
3. Email trigger after the patient makes an appointment.
4. "Buy Now" button is disabled if the product is out of stock.
5. "Quantity" field made dynamic using AJAX, JQuery and Java servlets before making the purchase and dynamically calculating total amount payable, discount and rebate.

Class Diagram

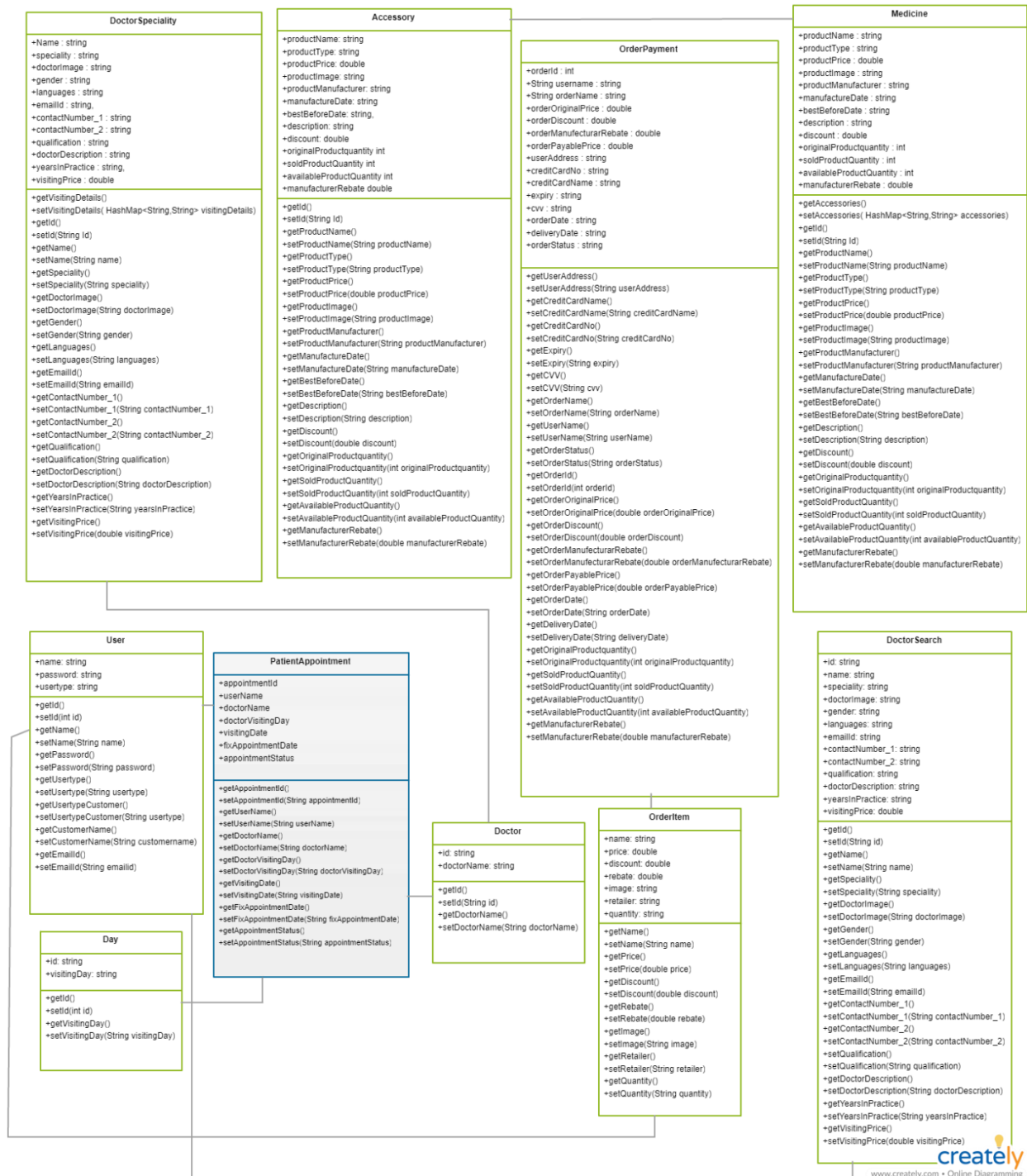


Figure 1. Class Diagram for “KNN HealthCare”

Technologies and Tools Used

1. Java servlet
2. MySQL
3. MongoDB
4. JQuery
5. AJAX
6. Java Script
7. HTML and CSS
8. Bootstrap
9. Google Chart
10. For emailing: We are using Google's portable SMTP server to trigger the emails from our "KNNHealthCare" web site. Also, since Google's SMTP server does not use Port 25, it will further reduce the probability that an ISP might block your email or flag it as SPAM. Google limits the amount of mail a user can send, via its portable SMTP server. This limit restricts the number of messages sent per day to 99 emails; and the restriction is automatically removed within 24 hours after the limit was reached.