

## Marist Health Services Booking System

Project 2 Final Write Up

Jaclyn Gambardella

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### **Abstract**

For my final project I created a booking system for patients at the Marist College Health Services Office in order for them to make appointments with their doctor more efficiently and conveniently. This program has three different doctors working out of this practice, Dr. Sam, Dr. Ellie and Dr. Mandy, each with different patients. The program starts with each patient being prompted to select the doctor that they wish to see at the health center. After selecting their option they must input information about themselves such as last name, date of birth and type of health insurance. Next, the program will print the selected doctor's availability which includes the day of the week and the time that they are available for an appointment. Each doctor only works on certain days and only at certain times. Each appointment is assigned an integer so that the patient can choose an appointment number instead of typing out the day of the week and time themselves. This is also helpful to ensure the patient enters their intended input. The patient will then select which appointment they chose by entering the integer value into the program. The next step of the program prints a list of different types of appointments for the user to choose. The options are new patient, returning patient, follow up visit and urgent visit. Once the user inputs the type of visit they are in for a receipt of the information inputted throughout the program is printed for the user to see. It includes all of their personal information and also the

appointment number. It then allows the user to start over if need be. The program will then return this new information.

## **Introduction**

The motivation for this program is to make the current doctors visit more efficient. At several different doctors offices it often takes a really long time for the secretaries to obtain all of this information from the patients, and ends up resulting in a long line of people waiting at the front desk. Then, it can take up to an hour to actually be seen by your doctor. All of this information can be obtained before the actual visit by using this program in advance. When I visit health services when I am sick, sometimes the wait is very long because the receptionist has to look at each person's insurance card, ask if there were any changes to it and still wait for each person to sign in and write the time of their appointment. Hopefully with this program wait times will be shortened and the overall doctors office experience will be more productive. At my orthodontists office there was a program similar to this one which resulted in no wait time for any patient even on the busiest days.

## **Detailed System Description**

PatientInformation
<ul style="list-style-type: none"><li>- dOB:String</li><li>- lastName:String</li><li>- healthIns:String</li></ul>

+ getDOB():String + setDOB(dOB:String) + getHealthIns():String + setHealthIns(healthIns:String) + getLastName():String + seLastName(name:String)
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Tester
+main(String[] args):void

VisitType
+VisitType (testInt: Integer, testString: String):void

## Requirements

The requirements for this program to address would be to properly obtain the data from the user including their last name, date of birth, insurance information and their selection for their appointment and output it for the user to see. It is also to correctly display the availability of the doctors for the user to see and overall be easy and seamless for the user to use.

## Literature Survey

A solution to this problem that has been used by the Health Services office at Marist is walk in hours. On weekdays the health services office allows students to come in with no appointment from 12pm until 1pm. This is great because if a student does not have time to make an appointment before they realize they need one, this is a great time for them to stop by. However, the student risks showing up and having to wait in a long line of people if the office is busy,

which it usually is at these times. This program will allow students to check if there is an appointment available before they walk to the office, therefore giving them a time that may work better with their schedule. This will also be more convenient for them because students have many responsibilities and a heavy workload to worry about. They must manage their time very carefully in order to get all of their work done.

### **User Manual**

The patient will be greeted with a welcome message and then immediately asked the first command which is “Chose what doctor you will be seeing”. The program will offer Dr. Sam, Dr. Ellie and Dr. Mandy, each numbered from 1 to 3. The patient will type the integer and then press enter. Next the patient will be asked a series of personal information questions such as:

- Please enter your date of birth (MM/DD/YY):
- Please enter your last name:
- Please enter your insurance type:

Once this information is verified the patient will be able to view a list of their chosen Doctor’s availability, with each separate appointment assigned with an integer value. The user will input the integer value that corresponds with the appointment that they choose. The Doctor’s availability will be shown like this:

Dr. Sam:

Day: Monday

Time: 10am

Appointment Number: 1

After inputting the integer value the patient will be asked to select the type of visit they will be having from the following list:

- New patient
- Returnig patient
- Follow up visit
- Urgent visit

The user will then see a message welcoming them to the office if it is their first time visiting and a message welcoming them back if not. Lastly, the program will print a receipt of all of the information they have inputted so that the user can review it to make sure it is correct. If all of the information is correct, the user is done and has a scheduled appointment. If the information is not correct, the user can press 1 to restart the program and input the information in the correct way.

## **Conclusion**

The goals that will be accomplished by this system is to create an appointment for a patient to see a doctor, considering all of the patient's information and Doctor's availability. The program will return all of this information listed like a type of receipt for the patient to see and remember the time of their appointment.

## **Sources**

Introduction to Java Programming and Data Structures, 11th edition