

## Instructions – Stage 2

Name: \_\_\_\_\_

### To begin, you will need to have

- The source code for the iTrust (role based healthcare) system. This is a Java/JSP application.
- A short tutorial of the iTrust system
- The list of five bugs given in this document.
- You may optionally run the system from your YSU computer at <http://10.8.2.120:8080/iTrust>. The five bugs exist in this version of iTrust.

### What you will be given

- Five bug-fixing tasks along with the place where the bug was fixed.

### What you need to do

- For each of the five bug-fixing tasks, you will need to
  - Rank a given list of source code entities (methods/classes) from a scale of 1 to 5 based on how relevant you think that entity is with respect to fixing the bug.
    - If you think there is another class/method that is relevant and not mentioned, please indicate this in the space provided.
  - Provide a confidence rating of your ranking. (Low, Medium, High)

### Ranking Scale

Please rank each entity on a five point scale by relevance to the bug being fixed

1 = lowest relevance	2	3	4	5 = highest relevance
----------------------	---	---	---	-----------------------

### Example Bug Ranking Task:

If you necessarily had to inspect classes B, C, and D to fix a bug and the actual fix was in class D, you should consider classes B, C, and D all relevant to the bug fix. One possible ranking could be D = 5, B=4, C=4

Also see Sample Bug Ranking Task at the end of the tutorial.

## How to use the file search in Eclipse.

This will help you easily find the source entities that you are supposed to rank.

Go to the Search menu and click File

- Leave the **Containing text** field blank.
- In the **File name patterns (separated by comma)** textbox field, enter the name of the class and java extension (.java). For example if you want to search for the class PatientDAO, type PatientDAO.java in the textbox.
- This will return the file you are looking for in the specific directory hierarchy.

**A link to the source environment for iTrust can be found here.**

[https://www.dropbox.com/s/gfzg9rfdz4kdmdv/study\\_env\\_stage2.zip](https://www.dropbox.com/s/gfzg9rfdz4kdmdv/study_env_stage2.zip)

After downloading the file above

- Unzip this into your Eclipse workspace (the directory that Eclipse prompts you at startup).
- Open the eclipse environment
- You may be able to see the iTrust project.
- If you are not able to see the project, you will need to import the project using the **File -> Import -> Existing Projects from Workspace**. Under **select root directory**, browse for the iTrust project directory. Click **Finish**.

If you are having any issues with viewing the source please contact Braden Walters ([bmwalters01@student.ysu.edu](mailto:bmwalters01@student.ysu.edu)).

## Task 1

The patient CSV uploader accessed from the "Upload Patient File" link from the Health Care Practitioner (HCP) sidebar does not behave as it should.

**Expected:** Uploading CSV with patient information requires the field firstName, lastName, and email

**Actual:** The firstName is not an acceptable field in CSV file

### Related Use Cases:

UC1 Create and Deactivate Patients Use Case

1.3 Sub-flows S3

1.6 Example CSV File

### The bug was fixed in the following place

Class name: AddPatientFileAction

Method/Member variable name: requiredFields

Explanation: "firstName" was missing from the array of required fields.

### Entities to Rank

Source code entity	Your Ranking	How confident are you of the ranking?
AddPatientFileAction.requiredFields	1 2 3 4 5	Low Medium High
AddPatientFileAction.patients	1 2 3 4 5	Low Medium High
CSVParser.CSVScanner	1 2 3 4 5	Low Medium High

Task 1 continued on the next page....

**Any other relevant classes you would like to add that are not listed in the table above?**

<b>Source code entity</b>	<b>Your Ranking</b>	<b>How confident are you of the ranking?</b>
	1 2 3 4 5	Low Medium High
	1 2 3 4 5	Low Medium High

**Any Comments:**

## Task 2

The appointment date and time is incorrect when on View My Appointments as a Patient.

**Expected:** The appointment date and time is that which was input by the Health Care Practitioner (HCP).

**Actual:** Appointment time always has a year of 1969.

### Related Use Cases:

UC22 Flow of Events for the Schedule Appointments Use Case

22.3 Sub-flows S4

### The bug was fixed in the following place

Class name: ApptBeanLoader

Method/Member variable name: loadSingle

Explanation: Since the date was always near the epoch, there was a small time value hard-coded somewhere masking the actual Timestamps in the SQL result sets.

### Entities to Rank

Source code entity	Your Ranking	How confident are you of the ranking?
AddApptAction.addAppt	1 2 3 4 5	Low Medium High
AddApptRequestAction.getNextAvailableAppts. lastConflict	1 2 3 4 5	Low Medium High
AddApptRequestAction.getNextAvailableAppts. conflicts	1 2 3 4 5	Low Medium High
ViewApptRequestsAction.getApptRequests	1 2 3 4 5	Low Medium High
ApptBeanLoader.loadParameters	1 2 3 4 5	Low Medium High

Task 2 continued on the next page....

**Any other relevant classes you would like to add that are not listed in the table above?**

<b>Source code entity</b>	<b>Your Ranking</b>	<b>How confident are you of the ranking?</b>
	1 2 3 4 5	Low Medium High
	1 2 3 4 5	Low Medium High

**Any Comments:**

### Task 3

When a patient goes to View My Records, office visit history on the right side is incomplete.

**Expected:** Displays complete list of office visits user had.

**Actual:** Displays an empty list.

#### Related Use Cases:

UC9 View records Use Case

9.3 Sub-flows S1

#### The bug was fixed in the following place

Class name: `ViewMyRecordsAction`

Method/Member variable name: `getAllOfficeVisits`

Explanation: Rather than retrieving info, this just returned an empty list.

#### Entities to Rank

Source code entity	Your Ranking	How confident are you of the ranking?
<code>ViewMyRecordsAction.getProcedures</code>	1 2 3 4 5	Low Medium High
<code>ViewMyRecordsAction.getAllOfficeVisits</code>	1 2 3 4 5	Low Medium High
<code>ViewMyRecordsAction.getFamilyHealthRecords</code>	1 2 3 4 5	Low Medium High

#### Any other relevant classes you would like to add that are not listed in the table above?

Source code entity	Your Ranking	How confident are you of the ranking?
	1 2 3 4 5	Low Medium High
	1 2 3 4 5	Low Medium High

**Any Comments:**



## Task 4

A Patient cannot compose a message from the "Compose a Message" link even when all fields are filled in.

**Expected:** If all fields are filled in, the message will be composed.

**Actual:** Field error, "body: Up to 1000 alphanumeric characters, with space, and other punctuation", even when body is filled in.

### Related Use Cases:

UC30 Messaging between LHCP and patient  
30.3 Sub-flows S1

### The bug was fixed in the following place

Class name: `MessageBean`

Method/Member variable name: `setBody`

Explanation: Misqualified assignment made this a no-op.

### Entities to Rank

Source code entity	Your Ranking	How confident are you of the ranking?		
<code>MessageBean.getBody</code>	1 2 3 4 5	Low	Medium	High
<code>MessageBean.setBody</code>	1 2 3 4 5	Low	Medium	High
<code>MessageBean.setMessageId</code>	1 2 3 4 5	Low	Medium	High
<code>MessageBean.getParentMessageId</code>	1 2 3 4 5	Low	Medium	High

Task 4 continued on the next page....

**Any other relevant classes you would like to add that are not listed in the table above?**

<b>Source code entity</b>	<b>Your Ranking</b>	<b>How confident are you of the ranking?</b>		
	1 2 3 4 5	Low	Medium	High
	1 2 3 4 5	Low	Medium	High

**Any Comments:**

## Task 5

When a Health Care Practitioner (HCP) accesses "Representatives", selects a representee, then selects a representative, an incorrect representative is added.

**Expected:** Selected representative will be added.

**Actual:** Representee becomes new representative.

### Related Use Cases:

UC13 Declare/undeclare Personal Representative Use Case

13.3 Main Flow

### The bug was fixed in the following place

Class name: PatientDAO

Method/Member variable name: addRepresentative

Explanation: Typo put the wrong parameter in the INSERT statement.

### Entities to Rank

Source code entity	Your Ranking	How confident are you of the ranking?
<code>EditRepresentativesAction.patientDAO</code>	1 2 3 4 5	Low Medium High
<code>EditRepresentativesAction.getRepresented</code>	1 2 3 4 5	Low Medium High
<code>EditRepresentativesAction.removeRepresentative</code>	1 2 3 4 5	Low Medium High
<code>PatientDAO.getName</code>	1 2 3 4 5	Low Medium High
<code>PatientDAO.getName.ps</code> (usage of ps in the method getName)	1 2 3 4 5	Low Medium High
<code>EditRepresentativesAction.addRepresentative.confirm</code>	1 2 3 4 5	Low Medium High
<code>EditRepresentativesAction.addRepresentative</code>	1 2 3 4 5	Low Medium High

**Any other relevant classes you would like to add that are not listed in the table above?**

<b>Source code entity</b>	<b>Your Ranking</b>	<b>How confident are you of the ranking?</b>
	1 2 3 4 5	Low Medium High
	1 2 3 4 5	Low Medium High

**Any Comments:**