1. **Change request log**
2. **Team**

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1. **Change Request**

Change order [FEMR-138](https://teamfemr.atlassian.net/browse/FEMR-138) users are able to submit a form on the Pharmacy even when the disclaimer is not checked, which should not be allowed

1. **Concept Location**

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 | We logged into FEMR with the credentials provided | Look at application for the first time |
| 2 | We interacted with the system: after logging in we entered the Pharmacy tab | Since the change request mentioned the issue dealt with the Pharmacy |
| 3 | The Pharmacy screen requested a patient ID, since we did not have one we clicked to Medical but that needed a patient ID as well, so we then clicked to “triage” to find the create a new patient screen | Looking for an area of the application in which we could find a patient ID |
| 4 | Created a new Patient Bob Matters he was patient ID = 17 | Needed a new patient so we created a new one so that we could have a patient number. |
| 5 | Went back to Pharmacy and inputed the Patient ID of 17 and had nothing return because he has no prescriptions | Wanted to see if we could now access the Pharmacy |
| 6 | Went to the Medical tab and inputed the Patient ID of 17 and was shown a medical chart for Bob | Went here to see if it was possible to add a prescription to our new patient |
| 7 | Clicked on the treatment tab to see if we could add a prescription and saw that there’s a prescription field, we inputted that Bob needed “Hydrocodone” and clicked submit | Treatment seemed like a logical place to have prescriptions and then saw the prescription field in that sub-tab and added the prescription |
| 8 | Went back to the Pharmacy tab and searched for patient ID 17 | Trying to see Bob’s Prescription that we made |
| 9 | The page displayed the medication that we gave Bob and there was a submit button and the terms and conditions checkbox, we clicked submit without checking the box and the form submitted successfully –**this is the issue described in the change request** | Now that we were in the prescriptions page in the Pharmacy we could now see the issue that was in the change request |
| 10 | We Installed heidisql and in order to look in the database to figure out what user to sign in with and chose admin | Now that we knew where the problem was we installed the project to be able to view the code |
| 11 | Searched in intellij for “iscounseled” (shift shift for search key) and was taken to PatientPrescription.java . | Since we did not know where “iscounceled” is called we used the search functionality. The database table patients has a column named iscounceled. |
| 12 | Tried to test for iscounseled and throw exception but I got an exception every time a prescription was inserted – we marked the issue code as located | We were not sure this class had to be modified so we tried to see if any errors were thrown, when it did we confirmed this class had to be modified. |

**Time spent (in minutes):** 45

**Impact Analysis**

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 | We made a list of methods called by the “PharmaciesController” method using find usages of intellij | To track the classes that could be impacted by the change. |
| 2 | Run time Exception for instead of graceful message | The developer does not know how to display graceful message |
| 3 | The ui/controllers/superuser/PharmaciesController.java has the “iscouncelled” field and requires the change | This class was marked as needing to be changed for this change request |

**Time spent (in minutes):** 33

1. **Prefactoring (optional)**

Using the table below, describe each step you followed to prefactor the code. Include as many details as possible, including the refactoring operations used (e.g., move method, extract class, etc.) and classes/methods/fields that were modified, added, removed, renamed, etc.

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |

**Time spent (in minutes):** 0

**Actualization**

Using the table below, describe each step you followed when changing the code. Include as many details as possible, including why classes/methods were modified, added, removed, renamed, etc.

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 | We used IDE’s debug mode here to step through code in PharmaciesController.java to see how the code worked | We wanted to understand how the system acted at each step |
| 2 | Made the following change to the code in the path:  ui/controllers/superuser/PharmaciesController.java  //cyn  After if (createViewModelPost.getDisclaimer()==1  It did not work so the change was removed. | We wanted to see this would fix the disclaimer issue; however, it did not so we backed out the change. |
| 3 | Made the following change to the code in the path:  ui/controllers/superuser/PharmaciesController.java  //cyn fix  If (isCounseled == false) {  throw new Runtimeexception(“Counseling is required”);  } | Since the issue had to deal with the disclaimer was not being selected we thought about including and error message to prompt the user to check the disclaimer once the disclaimer is checked then the user will be able to move forwared |
|  | After the previous change, we tested the system to verify that the user could not click the submit button unless the disclaimer box was selected and tested with the disclaimer button selected and was able to submit. | We tested everything was working as before and that the change we made worked as well. |
| 4 | We committed our changes with git. | Just in case we need to revert our changes. |

**Time spent (in minutes):** 65

1. **Postfactoring (optional) shall we do this optional section? If so how is this different that when we made the changes?**

Using the table below, describe each step you followed to postfactor the code. Include as many details as possible, including the refactoring operations used (e.g., move method, extract class, etc.) and classes/methods/fields that were modified, added, removed, renamed, etc.

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 | ... |  |

**Time spent (in minutes):** 0

**Validation**

Using the table below, describe any validation activity (e.g., testing, code inspections, etc.) you performed for this change request. Include the description of each test case, the result (pass/fail) and its rationale.

|  |  |  |
| --- | --- | --- |
| Step # | Description | Rationale |
| 1 | Test case defined: for a given patient be unable to click submit in the pharmacy page when the disclaimer check box is not selected  Inputs: Disclaimer box not selected  Expected output: Error message prompting to select the disclaimer box | This is what is not working before the change request and should throw an error message after our fix  The test passed. |
| 2 | Test case defined: for a given patient be able to click submit in the pharmacy page when the disclaimer check box is selected  Inputs: Disclaimer box selected  Expected output: Successful submission | This is the desired state of after the change  The test passed. |

**Time spent (in minutes):** 30

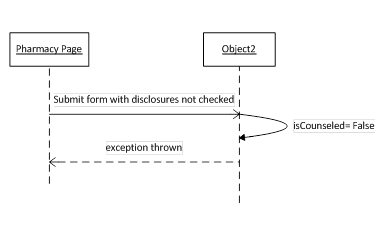
1. **Timing**

Summarize the time spent on each phase.

|  |  |
| --- | --- |
| Phase Name | Time (in minutes) |
| Concept location | 45 |
| Impact Analysis | 33 |
| Prefactoring |  |
| Actualization | 65 |
| Postfactoring |  |
| Verification | 30 |
| Total | 173 |

1. **Reverse engineering**

Create a UML sequence diagram (or more if needed) corresponding to the main object interactions affected by your change.





1. **Conclusions**

For this change request, there was some struggles from the beginning as it was the first time that we have worked with this application; however, once we were able to access FEMR and get all the code on one of our personal machines and be able to walk through the application and look at the code we were able to get a better grasp of the application. The concept location section really captures our learning curve with the application. The section we had the most trouble with was the setting up the database as the instructions provided were not working for us.

Classes and methods changed:

* ui/controllers/superuser/PharmaciesController.java