

Purdue Course Ratings

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Use cases worked on so far in sprint 1:

1. As a user, I would like to login through Facebook.
2. As a user, I would like to select if I want to write a review for an instructor or course.
3. As a user, I would like to fill out a questionnaire that rates an instructor.
4. As a user, I would like to fill out a questionnaire that rates a course.
5. As a user, I would like to view a course's rating (front end only).
6. As a user, I would like to view an instructor's rating (front end only).
7. As a user, I would like to search for a course or instructor (front end only).

Note: Throughout this document, we will use a severity of 1 as the lowest severity. As the numbers increase, so does the severity.

Design Inspection Defects

Product	Purdue Rating App Design Inspection		
Date	02/09/2017		
Author	Manasi Goel		
Moderator	Elvin Uthuppan		
Inspector	Kenny Zheng		
Defect #	Description	Severity	How Corrected
1	Screen size is fixed and only certain amount of fields can be included in the screen	3	Add ScrollView and xmlns to the UI which allows for scrolling and page formatting
2	Was unable to add effects to EditText like Floating in Android Studio	1	Using default setup for now but will continue to search for solution
3	Textfield was unable to line up correctly in the UI	1	Set the layout_width and height to "match_parent" and adjust the layout_weight
4	Was unable to upload a default picture for Picture Upload for professor reviews	1	Created a drawable folder where all pictures will be
5	The UI prevent drag and drop feature where we can't place text boxes where we desired	1	The UI is hierarchy structure where all text boxes are placed above each other
6	The same user can come back and write multiple reviews for the same person (allowing potential for spamming). This issue occurs because we are not integrating our user authentication with our review writing to keep track of who has written what.	2	Once our user authentication is set up, we can use it to verify that one user only has the ability to add one review per course/instructor.

7	Certain tags or buttons did not display the correct page or perform the correct response	3	Change the link and actions performed by each button
8	Selecting one radio button in review survey does not get unselected when another button is clicked.	1	Set other button to false once the button is clicked.
9	Submitting twice lets the user's review get added to the database a second time.	2	Changed the flow so that after a user had clicked submit it takes them back to a screen where they select if they want to write a review which presents them with blank questionnaires.
10	When a user logs in for the first time, they must close the app and then re-open it in order to continue using it.	3	We intend on changing the flow

Code Inspection Defects

Product	Purdue Rating App Inspection		
Date	02/09/2017		
Author	Manasi Goel		
Moderator	Elvin Uthuppan		
Inspector	Kenny Zheng		
Defect #	Description	Severity	How Corrected
1	Can not check if the website entered for instructor/TA is valid or not	2	Use java email package to check if the input email is a valid email
2	Facebook login page crashes	1	MainActivity would not work so another activity did the trick in the Manifest file.
3	When a user returns to their review, the old review information does not show up	3	The reviews will be stored in database such as Firebase where the reviews can be retreated easily when the user comes back
4	Users was able to enter invalid numbers such as negative number and large numbers for rating	2	Use a rating scale instead let the users input numbers for rating
5	Accepts invalid characters, such as number for name	2	Include a check where only alphabet characters are allow for names
6	App kept crashing and gave the following message when run in debug mode: java.lang.RuntimeException: Unable to instantiate activity ComponentInfo{com.mango.cs_408_project/com.mango.cs_408_project.CourseReview}:	5	We were initialising variables that corresponded to buttons that had not yet been created. They could only be found by ID after the onCreate method had been called. We found

	java.lang.NullPointerException: Attempt to invoke virtual method 'android.view.Window\$Callback android.view.Window.getCallback()' on a null object reference		this issue and moved our initialization to inside the onCreate method.
7	When selecting a specific number of stars to rate an instructor, the number of stars that gets added to the database is always 5 instead of the number selected by the user.	2	The methods used for retrieving the number of stars per rating was incorrect even though intuitively the one selected seemed correct.
8	Various Gradle Script Errors prevent app from building throughout project.	2	Had to find all versions of software and add them to gradle scripts as we work with different api's.

Unit Testing Defects

We automated our unit testing by using Espresso which helps automate unit testing for Android Studio. We created rules for different activities and intents and then wrote tests for various UI components using those rules. This automation can be seen in the following folder:

[“CS_408_Project/app/src/androidTest/java/com/mango/cs_408_project”](#). We have created 42 test cases testing everything from buttons to screens switching.

Product	Purdue Rating App Unit Testing			
Date	02/09/2017			
Author	Manasi Goel			
Moderator	Elvin Uthuppan			
Inspector	Kenny Zheng			
Defect #	Module	Description (of each test)	Severe	How Corrected
1	User authentication (through Facebook)	Make sure logging in through facebook leads to the activity that allows you to select review type (Test still being worked on to find the facebook parameters for email and pass text fields)	4	Fixed by sending an intent towards the review activity on a successful login.
2	Writing a course review	When one radio button was selected for a yes/no question, selecting the other button would not deselect the first one. The unit tests to show that only one button is selected at a time failed.	2	We added onClick functions for when a button is clicked to make sure no other button in that question is clicked. We have also added tests to check this for every single button.
3	Writing an instructor (professor or	User was able to click submit multiple times so the same review would	4	We changed the flow so that after a user clicks submit, they are

	TA) review	keep getting added to the database. This could have caused our database to crash.		taken back to our home screen where they have to start over. We added tests to check that this was the flow that always happens.
4	Selecting the type of review to write	The user selects whether he/she wants to write an instructor review or a course review and is then should be directed to the appropriate questionnaire. The buttons did not take the user to the right place.	3	Redesigned the flow of the app and restructured the code in each Android activity to include this change. Also added tests to check what activity starts when each button is clicked.
5	Searching for a course or professor	The search would allow any kind of character to be typed in, including special characters which could not possibly be part of an instructor's name or course number.	1	We added an error message for special characters and added unit tests to make sure that the appropriate message gets displayed based on the search query.