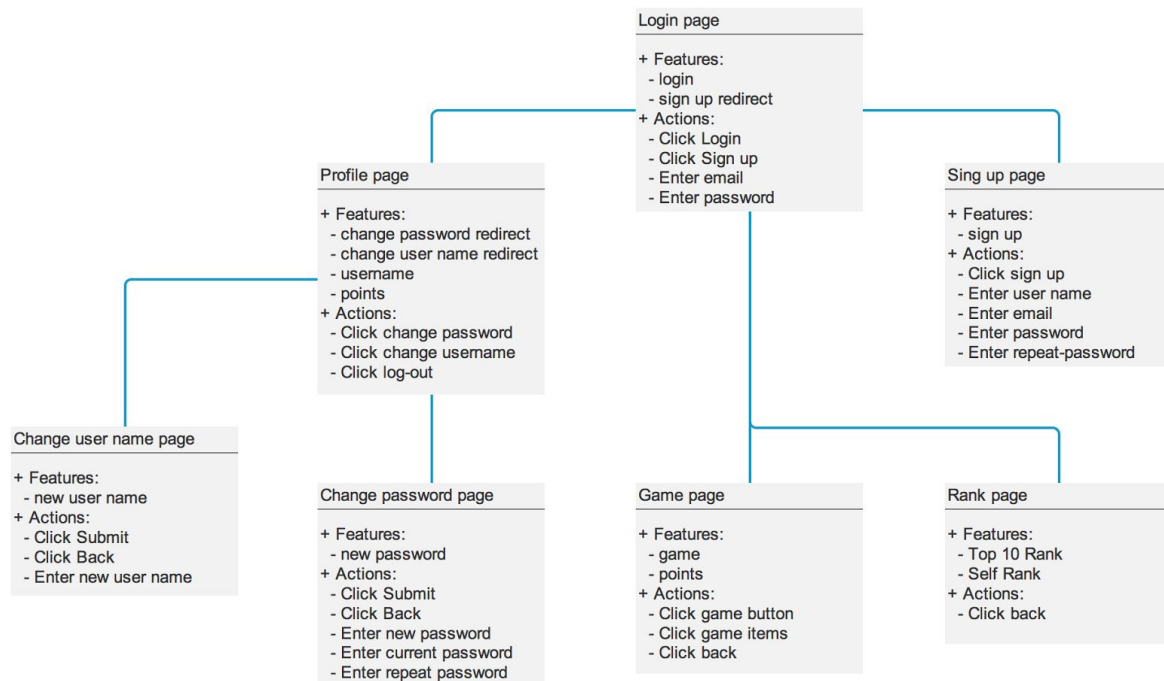


Team 14 : Defect Log

Wenya Zhu, Dan Luo, Shirley Fu, Jingzhou Wang, Jay Cha

Design Description



Design Inspection Defect Log

Product	Minesweeper
Date	09/20/2017
Author	Team 14
Moderator	Dan Luo
Inspectors	Wenya Zhu, Dan Luo, Shirley Fu, Jingzhou Wang, Jay Cha
Recorder	Wenya Zhu

Defect #	Description	Severity	How Corrected
1	GameScene should not be connected to the View	3	Created ViewController for the Game
2	No module was assigned to connect the database	2	Data view controller was created for database
3	No module was assigned to track the score	1	Created gameStats to track the score
4	No module was established to check the rank	1	Created rank class to store the rank
5	For a new game, GameViewController module should not evoke another module but itself	2	Created a EndViewController to link back to a new game
6	GameTile should not contain logic	3	Created GameBoard to contain the main logic
7	One-click to tile and hold onto tile should be different for revealing and flagging	3	Created a method in GameScene to differentiate those operations.
8	The view of each tile should not be generated in the tile class	2	Created a tile sprit class to generate the view of each tile
9	The view of end game should not be generated in the game view controller	3	Created a endgame view for game end
10	No module was used to save the user to the server	3	Created a User module to store the data for Firebase server
11	No view has been created for updating user profile	2	Created a ChangeControllerViews for username and password

Code Inspection Defect Log

Product	Minesweeper		
Date	09/20/2017		
Author	Team 14		
Defect #	Description	Severity	How Corrected
1	The latest (x, y) position of previous game remains on the new game, causing new game to crash.	3	Made a separate variable to keep track whether the game ended or not. Used the variable to re-initialize entire board.
2	Connect the move label to the right view controller	1	Delete the wrong connection and connect the move label to the game view controller
3	Recursion on revealing empty (no mines) neighboring tiles crashes on tiles on the edges (diagonal).	3	Separated original algorithm and made a diagonal property to bypass the cases
4	The same recursion stated above runs slow	1	Instead of making one big function, separated the function into 3 different functions
5	Fetch username using not matched reference, causing firebase to send error message	2	Automatically find reference by using uid of the current user.
6	Retrieving bomb images and flag images as local files cause the game to crash	3	Omitted the images and replaced with images given by SpriteKit module.
7	To get top 10 records of different levels, mixed up with records of other levels	2	Create directories for the records and ranks of each level on database.
8	Compare the current record with ranked records, while rank is empty	2	Added size check before compare rank and current record.

9	Current record has same score with the ranked records, it will just overwrite the data	2	Instead of overwriting, it will create a new record and update the whole rank data.
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Unit Testing Defect Log

Product	Minesweeper		
Date	09/20/2017		
Author	Team 14		
Defect #	Description	Severity	How Corrected
User Authentication Module			
1	Tested sign-up page with length of username is empty, error message not shown	2	Added in checks to test whether the input is empty
2	Tested change-username page with length of username is empty, error message not shown	2	Added in checks to test whether the input is empty
3	Tested sign-up page with password is not match, error message not shown	2	Added in checks to test password and repeat password are equal
4	Tested sign-up page with e-mail input legitimacy, error message not shown	2	Added in checks to test email format is valid
5	Tested sign-up page with length of username is greater than 15 characters, error message not shown	2	Added if statement to check if the input is too long
6	Tested sign-up page with length of username is less than 4 characters, error message not shown	2	Added if statement to check if the input is too short

7	Tested sign-up page with length of password is greater than 16, error message not shown	2	Added if statement to check if the input is too long
8	When giving invalid inputs for registration, though the account cannot be created, the application can proceed to the next view and the alert cannot be shown	1	Instead of using the action that, proceed to the next view immediately when click the button, use “performSegue”, which directs to the next view, after checking if the inputs are valid
9	Giving multiple invalid inputs for username, password and email, only one error message show	2	Instead of using “&&” when checking all conditions in an if statement, check them separately
Profile Module			
10	When changing the password, give an invalid password, change can still proceed	2	Added same error-checking function for changing password as what is used for registration
11	Tested change password page with current password is incorrect	2	Added in checks to test current password is correct
12	Number of points on profile page cannot be shown properly	2	Force cast the integer to string and then pass the value to the label
Game Module			
13	When starting the new game, everything such as timer, number of flags should be re-setup	1	reset the all of the game vale when new game button is clicked
14	During the game, the number of move did not change, and the number of unused flag is not correct	3	keep updating the move label and number of unused flag as game process
15	three tils did not show the correct value	3	implement the correct logic for calculated the the value
16	When enter the game, can not see the every tiles	3	change the til’s background color which can make it differnet with the game

			background color
17	When a mine was clicked, game did not end	3	make the right connection with end_game view and game controller view
18	When a game is finished, number of discovered mines and time were incorrect	3	fix the result calculation and the timer
19	flag did not respond when user press a tile for a long time	3	fix the timer issue on the flag respond function
20	Even the flag was on the correct the mine but system still recognized as mine is clicked	3	change the tile flag value when the flag function is called
21	After end of the game, cannot add user record into the ranking system and user history	2	correctly connect the ranking module and user module in the end game view controller