

CS 40800: Defect Log

Project Title: Boileride

Team 3: Oi Kam Chow (ochow), Kuan-Ting Wu, Ley Yen Choo, Ryan Teo Yii Wen, WeiYuan Chung, Yuang Huang

Design Inspection Defects

Product	Boileride System Design Inspection		
Date	9/13/2018		
Author	Whole Team 3		
Moderator	Oi Kam Chow		
Inspectors	Kuan-Ting Wu, Ryan Teo Yii Wen, WeiYuan Chung, Yuang Huang		
Recorder	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	Mysql server should be accessible through outside network, not just in same location of the server	1	Security setting of mysql server now changed to allow remote connection
2	In client-server api, /user/verifyemail should send request with both email and code because the server does not remember the data from /user/signup	1	Request /user/verifyemail now sends both email and code to server
3	In client-server api, need to distinguish different kinds of errors and pass back as response to client.	3	Set general error code in server response to client for invalid data format, invalid request and database failure
4	Website should be running on HTTPS.	1	Obtained a custom domain for HTTPS.

Product	Frontend UI Design Inspection
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Date	9/16/2018		
Author	Ryan Teo Yii Wen, Ley Yen Choo		
Moderator	WeiYuan Chung		
Inspector	Oi Kam Chow (ochow), Kuan-Ting Wu		
Recorder	Yuang Huang		
Defect #	Description	Severity	How Corrected
1	On the website code, the HTML, CSS and JS are written all in the same file.	3	Separated HTML, CSS and JS to multiple files.
2	User signup does not need first name and last name	3	Removed the first name and last name fields in signup page
3	Update user account information should allow update each field separately instead of all information all together	3	Updated user account information, now supports updating each field separately
4	Both buttons under "Form" are carrying out the same action, it should only consist of one button	3	Changed one of the button that does not carry out the action specified in form from <button> element to <a> element
5	My Rides button in the navigation bar should have been a dropdown menu with more options.	3	Changed from My Rides button to dropdown menu.
6	Navigation bar does not indicate which page the user is in currently	3	Added active state to the navigation item to indicate the current active page
7	More than one current active page is shown when clicking one of the navigation items	3	Synced all the active state of navigation items in difference html files

Product	Boileride Server Design Inspection
Date	9/16/2018
Author	Oi Kam Chow (ochow), Kuan-Ting Wu, Yuang Huang

Moderator	Ryan Teo Yii Wen		
Inspectors	WeiYuan Chung		
Recorder	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	Single HttpHandler should be used for the entire server instead of adding one HttpHandler for each request	2	Single HttpHandler is now used to handle all request with conditional statements to divert different actions for each corresponding request
2	JSON request received from client by server should be make into data transfer object, instead of separate variables	3	Each request now has one class to convert JSON request into data transfer object for easier passing among functions
3	Global variable conn should be used for Database connection instead of passing conn among all functions that relate to accessing database	3	Global variable conn is now used to store the connection to database when the server connects to the database
4	Statement should be created inside each function of the DatabaseCommunicator when a sql query has to be executed instead of creating with the connection in server and being passed around among functions	3	Statement is now created inside each function of the DatabaseCommunicator.
5	Instead of compiling the program manually by typing all the JARs in the command, use build automation system	2	Gradle is used to allow compiling and running of program automatically
6	Interface Anno should be placed inside the DTO folder instead of outside	1	Anno.java is moved into the DTO folder
7	Need toString() method for DTO classes, User class, RideRequest and RideOffer class to allow print out the content of objects for checking	3	Add toString method to the listed classes

Product	Boileride Database Design Inspection		
Date	9/18/2018		
Author	WeiYuan Chung		
Moderator	Oi Kam Chow		
Inspectors	Ryan Teo Yii Wen		
Recorder	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	Email in User table should be set as unique, not primary key. Only userid is the primary key.	2	Drop email as primary key and Set email as unique in User table.
2	userid, requestid, offerid in database should be integer being autoincrement by mysql instead of String generated in the server	1	userid, requestid, offerid column in database table is now created as autoincrement; all ids called in functions and classes are updated from String to int
3	Accidentally set userid and email as primary key in the User table	2	Drop all the foreign key in the database that are connected to User table and modify auto increment in userid, drop the primary key and re-add everything
4	Couldn't connect to mysql workbench	1	Create and design the table using Terminal

Product	Boileride Server Design Inspection		
Date	9/20/2018		
Author	Oi Kam Chow (ochow), Kuan-Ting Wu, Yuang Huang		
Moderator	Ryan Teo Yii Wen		
Inspectors	WeiYuan Chung		
Recorder	Ley Yen Choo		

Defect #	Description	Severity	How Corrected
1	DTO classes should not use the object outside the DTO folder. A separate set of RideRequest and RideOffer objects should be added within the DTO classes to support to need of using those objects within the class.	2	Added DtoRideRequest and DtoRideOffer classes in DTO folder
2	RideOfferSearch takes too long to return an optimal result using DFS	2	Changed the algorithm to A* search
3	RideOfferSearch returns infeasible result when there are multiple rides in one trip.	2	Added time offset in between rides for users to travel to a new pickup location.

Code Inspection Defects

Product	Frontend Inspection		
Date	9/18/2018		
Author	Ryan Teo Yii Wen, Ley Yen Choo		
Moderator	WeiYuan Chung		
Inspector	Oi Kam Chow (ochow), Kuan-Ting Wu		
Recorder	Yuang Huang		
Defect #	Description	Severity	How Corrected
1	The server connection uri to send data to the server is incorrect	1	Added missing part of the uri
2	Variable names are too long	3	Shorten the length of variable names
3	datentimerange in search request should not set as String but a Date object with the default value being datetime	1	datentimerange is changed to Date with default as datetime
4	Data sent from frontend to the backend lacked certain crucial	1	Added functionality to allow JSON object to be altered to include all

	information because generation of JSON object is restricted.		information needed by the backend.
5	Create ride offer and ride requests forms had placeholder text on input fields which makes it prone to typos.	2	Removed placeholders on input fields.
6	Date field input in create ride offer, create ride requests, search ride offer and search ride offer pages allowed keyboard inputs which would allow for invalid dates.	1	Removed keyboard inputs on date field inputs.
7	Checkboxes in forms would not provide the right information when the JSON object was created.	1	Manually set boolean values in the JSON objects based on the results of the checkbox.
8	Passwords should be hashed in a different standard.	2	Password are now hashed on a known reliable standard.
9	Import statement for Google Map API did not work as intended.	2	Removed async feature on script to allow the script to load first before other files.
10	Reset Password page should retrieve email from forgot password page input field	2	Stored the value of email inside local storage of forgot password page and retrieve it at reset password page

Product	Server Module Inspection		
Date	9/18/2018		
Author	Oi Kam Chow (ochow), Kuan-Ting Wu, Yuang Huang		
Moderator	WeiYuan Chung		
Inspector	Ryan Teo Yii Wen		
Recorder	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	Recipient and sender are swapped in SendEmail class; .setFrom	1	Recipient and sender email address are swapped to feed them

	should take sender as argument and .addRecipient should take recipient as argument		to the right function call
2	In RideRequest class, updateRideRequestInDB() calling verifyData() and returning its result as response to request is not correct. verifyData() returns result code based on the request /ride/request, but the result code for the request /ride/request/update is different.	1	updateRideRequestInDB() now calls verifyUserId(), verifyDestinatin(), verifyDatentime(), isEnoughPoints() and adds conditional statements to return response result code based on the request /ride/request/update
3	In the offer related DTO files, the variables should be named as offerid instead of requestid	3	Variable names are corrected accordingly in all the offer related DTO files
4	In RideRequest class, two parameters are missing: seatsleft and luggageleft	1	The two missing parameters are added back to constructor, corresponding getter and setter are also added
5	In RideRequest and RideOffer class, the two update functions did not call update in database.	1	Corresponding functions with update queries to the database are added to the two update functions.
6	In BoilerServer.java, the conversion of received requests to json and corresponding data transfer objects should be checked for data format exception	3	Added try catch block to surround the .toJson() calls to make sure it returns invalid data response to client when JsonSyntaxException is caught
7	In BoilerServer.java function handle(), the part that handles logout request should use UserLogoutRequest and UserLogoutResponse, instead of UserLoginRequest and UserLoginResponse	1	The code is corrected to UserLogoutRequest and UserLogoutResponse to handle logout request.
8	When returning UserViewAccountResponse, RideViewRequestResponse, and RideViewOfferResponse to client, the parameters cannot be set to null but empty string. Otherwise, the JSON object created will have	1	Change the null in corresponding parameters to empty string.

	those parameters missing.		
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Product	Database and Queries Inspection		
Date	9/19/2018		
Author	WeiYuan Chung		
Moderator	Kuan-Ting Wu		
Inspector	Oi Kam Chow (ochow), Ryan Teo Yii Wen, Ley Yen Choo		
Recorder	Yuang Huang		
Defect #	Description	Severity	How Corrected
1	Query to create Joinedrideoffer table has a typo, add function key constraint should be FK instead of PK	1	The typo is corrected
2	Resultset returned from sql queries execution should be used to create new objects using the object constructor not methods; example: Object object = new Object(args)	1	Creates objects from resultset by calling new
3	In RideOffer Table, two fields are missing: seatleft and luggageleft	2	Add the two fields back to the table
4	Receive a null pointer when trying to execute query	2	Shouldn't call rs.close() after when didn't open the connection.
5	Data will be insert into the database even when error occurred	3	Fix the syntax of the queries

Product	Server Module Inspection		
Date	9/20/2018		
Author	Oi Kam Chow (ochow), Kuan-Ting Wu, Yuang Huang		
Moderator	WeiYuan Chung		

Inspector	Ryan Teo Yii Wen		
Recorder	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	When returning UserViewAccountResponse, RideViewRequestResponse, and RideViewOfferResponse to client, the parameters cannot be set to null but empty string. Otherwise, the JSON object created will have those parameters missing.	1	Change the null in corresponding parameters to empty string.
2	In User class, verifyEmailCode should be public instead of private; otherwise the BoilerideServer class cannot call this function to handle the corresponding request for signup	1	Change the function from private to public
3	In User class, verifyEmailCode should generate code by hashing password and email address together instead of email address alone	2	Password and email address are combined to be hashed for verification code generation.
4	In User class signUp and login functions, the status of user should be set to logged in if signup or login is successful	1	Added updating user status in the two functions.
5	In User class ForgotPassword function, select user with email directly from the database instead of w steps: select userid with email and select user with userid	3	Added function to select user with email
6	In User class, both viewAccount and updateAccount functions should check whether user is logged in before continuing the action.	2	Added checking user status before carrying out viewAccount and updateAccount functions.
7	All verifyUserid functions should return 2 if status <= 0 instead of status == 0	2	Changed the logic according

8	In RideSearchRequestResponse and RideSearchOfferResponse class, datatimerange should be of datatype Date instead of int.	1	The datatype is changed accordingly.
9	In RideOfferSearch, the priority queue is maintained in descending order, which makes longest trip come first.	2	Changed the comparator to make the priority queue has the shortest trip on top.
10	In RideOfferSearch, the database returns an Integer as the traveling time while the rideoffer object takes a Period type.	2	Converted Integer to Period.
11	In RideOfferSearch, the temporary class for search uses a reference to the trip, so that if the trip is changed, the tmptrip will also be changed.	2	Made deep copies of the trips.
12	In RideOfferSearch, the returned ride list is not ordered.	2	Used LinkedList to store the trips.
13	Google Map API is not returning anything.	2	Changed the API key.
14	Can only send request to Google Map API once a day	2	Created a new account and got a new API key.

Product	Database and Queries Inspection		
Date	9/20/2018		
Author	WeiYuan Chung		
Moderator	Kuan-Ting Wu		
Inspector	Oi Kam Chow (ochow), Ryan Teo Yii Wen, Ley Yen Choo		
Recorder	Yuang Huang		
Defect #	Description	Severity	How Corrected
1	Database connection is created in the BoilerServer.class; It should not	2	Removed database connection created in

	be created again in DatabaseCommunicator.class		DatabaseCommunicator.class
2	Database connection should not be closed when the server is running	1	Removed conn.close() in DatabaseCommunicator.class
3	Each function should have its own set of Statement and ResultSet; they should not be shared globally, otherwise when we close it after each use, it will not be able to reuse.	1	Add Statement and ResultSet to each function.
4	In addRideRequest and addRideOffer, the id should be returned when inserting the new record to the table rather than calling select to get the id of that record because the id is the only unique field in the tables.	2	Modified the queries to get the id when inserting at the same time.
5	In selectUser queries, it should not retrieve the password and send it out.	1	Remove password from the select query.

Unit Testing Defects

Product	Frontend Unit Testing		
Date	9/20/2018		
Author	Ley Yen Choo		
Defect #	Description	Severity	How Corrected
1	user sign up did not send out the correct json request to server	1	Removed the dash in the variable names to create correct json object
2	user sign in did not send out the correct json request to server	1	Removed the dash in the variable names to create correct json object
3	User sign up button did not redirect to the ride page after success	1	Added switch statement to retrieve the desired response and go to ride page
4	User sign in could allow invalid	2	Added email validation on input

	email addresses.		field.
5	User sign in and sign up could accept empty values for all fields	1	Added empty field validation on input fields.
6	Create ride offer, Create ride request, Search ride offer and Search ride request forms could allow negative values for number of seats available and room for luggages	1	Added minimum value for input fields.
7	Forgot password could proceed even without any input	1	Added a required field attribute to the related input
8	Forgot password allows invalid email address to proceed	1	Changed the input type of the text field to email type
9	User could input dates that are in the past.	2	Added date validation to prevent this from happening.
10	User does not receive alert when contact number's textfield has letters	2	Added a check function to validate the string input
11	Email verification proceed with empty input	1	Added a required field attribute to the related input
12	Email verification proceed with invalid email format	1	Changed the input type of the text field to email type
13	Panel in html disappeared after updating bootstrap	3	Replace panel with card as the content container
14	Reset Password could proceed without any input	1	Added a required field attribute to the related input
15	Reset Password allows invalid email address to proceed	1	Changed the input type of the text field to email type
16	Reset Password, modal appeared even without any input	2	Moved the target action from html to javascript, call the modal using jquery
17	Error showing ".\$post is not a function" when trying to run a jquery function	1	Changed the version of jquery in the html header

Product	User Account Unit Testing (Backend)		
Date	9/21/2018		
Author	Kuan-Ting Wu		
Defect #	Description	Severity	How Corrected
1	When sending signup request, exception raised at the point of checking the validity of email complaining that no java.mail class found; the signup process cannot proceed	1	Added javax.mail.jar to build.gradle to make it compile with the program
2	When sending another signup request again after the first one, the system raised an exception complaining that the database connection is closed and no further call can be made to the database	1	The closing connection statement was removed from BoilerideServer.class
3	When user tries to create a user with signUP(), user added to the database before verifying user's email address	1	Added status variable in User object, and set to -1 if user has not yet been verified, and to 1(verified and logged in) after verified.

Product	Ride Offer and Ride Request Unit Testing (Backend)		
Date	9/21/2018		
Author	Oi Kam Chow		
Defect #	Description	Severity	How Corrected
1	When client sends request of creating ride request/offer (all data are correct) to server, the server raised a date format parsing exception and the program ceased	1	Set date format explicitly when converting json request to dto with date parameter to ensure date format is consistent across the program
2	When client sends request of creating ride request/offer (all data are correct and the above is fixed) to server, the database complained	1	Convert java.util.date objects to java.sql.timestamp before passing those objects to the database

	about the date format does not match in database and cannot be stored		
3	When client sends request of creating ride request/offer with an invalid userid, the program ceased	1	Added checking (user != null) in logic to avoid calling functions on the null object that crash the program
4	When client sends request of canceling ride request/offer with an non-existing ride id, the program ceased	1	Fixed logic to avoid creating ride request/offer object when no existing ride is found in database.
5	When client sends request of canceling ride offer on an already cancelled ride offer, the program did not catch that the ride is already cancelled	3	The order of data passed to parameter of ride offer object is swapped back to the correct order make sure that data in database is converted to the corresponding parameter of offer object.
6	When client sends request of updating a ride offer, the ride offer is not updated.	2	Corrected the sql query from executing the update query on RIDEREQUEST table to RIDEOFFER table
7	When client sends request of updating number of seats and room for luggage ride offer, the program did not update the seatleft and luggageleft accordingly. Example: if number of seats is increased by 1, the remaining number of seat should also increase by 1	2	Added logic of computing the number of seat and room for luggage in update ride offer function.
8	When client sends request of viewing ride requests of a user, the list of ride requests is not returned	2	Corrected selectRequestList function, instead of returning null, now it returns the ride request list

Product	RideOfferSearch and RideRequestSearch Unit Testing (Backend)
Date	9/21/2018
Author	Yuang Huang

Defect #	Description	Severity	How Corrected
1	When retrieving RideRequest or RideOffer from database, only exact same address for origin and destination are returned.	2	Add a new column on RideRequest and RideOffer that specifies the cities of origin and departure.
2	When doing RideOfferSearch, trips with number of rides more than specified is returned.	2	Add a number of rides check on possible trips.

