

SSD - Software Specification Document

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Document history

Version	Date	Resp	Description
0.1	2018-10-24	PG	First draft

1 Referenced documents

1. SRS - Software Requirement Specification, v. 1.4
2. SVVI - Software Verification and Validation Instructions, v. 1.1
3. SVVR - Software Verification and Validation Report, v. 0.1

2 Description of the system

- *Login page*: To be able to use the systems functions the user must sign in to his/her account or create a new one. To create a new account the user hits the "New Account"-button and a window will pop up. The user has to fill in a username with at least 5 character, a password with at least 8 characters and an email adress in the format "name@domain.example". If successfully done a new account will be created. To sign in to an existing account the user will enter his/her username, password and hit the "Sign in"-button.
- *My Rides - tab*: This page will display a list of the users current rides. In the list the user can see if the user is a driver or passenger, departure and arrival location and departure and arrival time. For each ride in the list the user also has two buttons. One delete button that will delete the user from that ride. If the user is a passenger the user will simply be removed from the passenger list and if the user is a driver the whole ride with its passengers will be removed. The user can also click the "More Info"-button to recieve more information about that ride. If the user is a driver in one of the rides, the user can choose to ban other users from that ride.
- *Search ride - tab*: In the "Search ride" page the user can search for rides. The user does this by selecting a departure location and a arrival location from the dropdown menus with the same names above. The user also has to type in a date and time for the departure time of the ride. The user then presses the search rides tab and gets a list of rides to join if there is any rides for that time. The list is sorted after arrival location and then departure time. In the list of rides the user can see departure and arrival time for the ride, as-well as available seats and a list of participants. If the user wants to join that ride as a passenger the user can click the "Join" button next to that ride.

- *Create ride - tab*: "Create a ride"-page lets the user create his/her own ride as a driver that other users can join as passengers. To create a ride the user has to fill out a form that contains: departure and arrival location, departure and arrival date/time, and number of available seats. When finished with the form the user should press the "Create ride"-button and if the information is entered correct the ride will be created. Rides should not be created by an admin accounts since it will give them the role as admin and not driver on the created ride.
- **Admin only** *Admin - tab*: An admin account has an extra tab on the navigation menu called "User admin". On this page an admin can see a list of all the users registered on the system. If the admin presses one of the users in the list the admin will see more information about this account such as id, username, email and password. An admin may change any regular user account to an admin account but can also change an admin account to a regular account. An admin can also from this page create new users.
- **Admin only** *All locations - tab*: Admins have a tab called "All locations" where they can see a list of all available locations that users can create or search a ride of.

3 Differences from the SBL

3.1 Changes to the SRS

During the development of the system there have been some changes to the SRS although no major ones. In figure 1 is every changed or expired requirement with reason and solution.

Requirement	Replaced/Removed	Reason	Solution
Req 6.3.2	Replaced	Design flaw. Create a ride should be a tab on the navigation bar and not a button	Button was replaced to tab on the navigation menu
Req 6.6.3 & 6.6.4	Replaced	Date format specified in the requirements didn't work well with the SRS.	The requirements was replaced to have a date format that worked better with SQL
Req 6.2.3 & Req 6.2.5	Removed	UG did not know how to implements these requirements and considered them as "nice to have" and not necessary for the system	Removed the requirements

Figure 1: All replaced och expired requirements since the Specification Baseline (SLB)

3.2 Unfulfilled requirements

In figure 2 is a table with requirements that failed during testing. There are no serious erros and the system works fine anyway.

Requirement	Description in SRS	Test Case	Description in SVVI	Reason in SVVR	Error Class
Req 6.1.2	The user tries to create an account with an illegal username, email or password	ST2.1.1.b	Create account, illegal characters' length in Username	The system requires that a minimum character's length in the user name is 3 when creating an user however when input e.g "Ref" is used there is a message showing: "Resource constraints violated". The system still works and no crashes or compilation error found in the console. No solution for this yet error found yet.	B
Req 6.1.2	The user tries to create an account with an illegal username, email or password	ST2.1.2.a	Create account, illegal characters' type in the email-field	The test case should pass according to test instruction however the test instruction (and the SRS documentation) does not specify whether the email-field should be case-sensitive. Apparently user can't create an account if one of the letter in the email-field is uppercase. The system still works and no crashes or compilation error found in the console. Either update the requirement or implement this feature.	C
Req 6.1.2	The user tries to create an account with an illegal username, email or password	ST2.1.3.a	Create account, illegal characters' type in Password	In the requirement it says that the email should consist of 3-40 characters but does not specify whether or not it includes the format@example.com which leads to the test instruction with e.g AI@gmail.com still works. The system still works and no crashes or compilation error found in the console. Either update the test instruction or implement this feature.	C
Req 9.1	The application should work with Google Chrome on computers running Windows 10, Ubuntu 18.04 or MacOS 10.13: "High Sierra".	ST3.1.c	Successful getting the application to work with Chrome on computers running Ubuntu 18.04	The server using the local computers time format automatically which leads to incorrect inputs and most functions not working. This happens in all computers running Ubuntu in the "E-huset" building. The system still works and no crashes or compilation error found in the console. Problem can potentially be solved by adjusting time settings in these computers but the test group does not have admin privilege to that.	C
Req 9.2	The application should work with Google Chrome on computers running Windows 10, Ubuntu 18.04 or MacOS 10.13: "High Sierra".	ST3.2	Successful compiling and running the back end server on computers that run Ubuntu 18.04 and have Java 8 installed	There is a problem with compiling the back-end server on any Operating system not just Ubuntu 8.04. If the user follows the instruction on how to compile the back-end server it would not be possible to either log in or use any of the functions implemented. For the first time using the program user must first compile the file CreateSchema.java, restart Eclipse before starting the server with BaseServer.java. If follows this work around the system works again with no crashes or compilation errors.	C

Figure 2: Requirements that failed during testing

4 How to run the program

1. Import the Github repository into Eclipse with the following URI - <https://github.com/Puss18G5/backendoalgo.git>
2. Run the class CreateSchema.java in se.lth.base.server.database package to initialize the database. On some systems it is required to restart eclipse after this step.
3. Run the class BaseServer.java in se.lth.base.server package to start the server
4. Open Google Chrome on Windows or macOS and browse to localhost:8080
5. For admin access:

Username: Admin
Password: password