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| **Improvement** | **What?** | **Why?** |
| **selectstop()** method closing the scanner object | **code line 106**: as the scanner object is being closed at selectstop(), the terminal is not accepting further inputs. **Need to remove input.close() at line 106.** | Correct code functionality |
| java.util.Properties functionality of Java | Introduce a .properties file of the project to store configuration information, SQL syntax and any hardcoded section. | Will help in easy modification, recompilation isn't required |
| Complete migration of SQL functionality to generic SQL classes | using generic SQL classes{SQL Update/Insert/Delete/Select} for any interation with the DB. Which is currently pending for few methods. | Avoid multiple connection objects and to promote reusability |
| Methods in RouteMaster sharing same logic can be handled seperately in single method. | selectstop(), addNewRoute() share same logic/code of checking the direction the user is looking for | code reusability |
| Reducing SQL hits to the DB, and take all necessary resultset at once. | 2 methods viewallroutes(), seatsoccupiedinroute() have multiple DB hits for SQLselect query can be redused by using a hashmap to get the entire result set and compute accordingly | No lags/issues observed, but we want to reduce DB hits as a good programming practice. |
| Implement Single responsibility by moving method from Admin Class to route master | 1 method , UserRouteValue() should be in RouteMaster class. This will fullfill single responsibility for entire project. | Adhering to S of SOLID |
| Acces Modifier | Introduce setter and getters to achive better encapsulation. | Improve encapsulation |
| use of regex for validation | get validation code | Improve validation and security |