NOTE: this is not the full test and contribution report. This is a document containing only the test cases for diagnosis and repair bookings, for the convenience of the assessing TAs.

1.1   Test Cases - Diagnosis and Repair booking (A)

The test cases will refer to the following screenshots of the diagnosis and repair booking module interface:
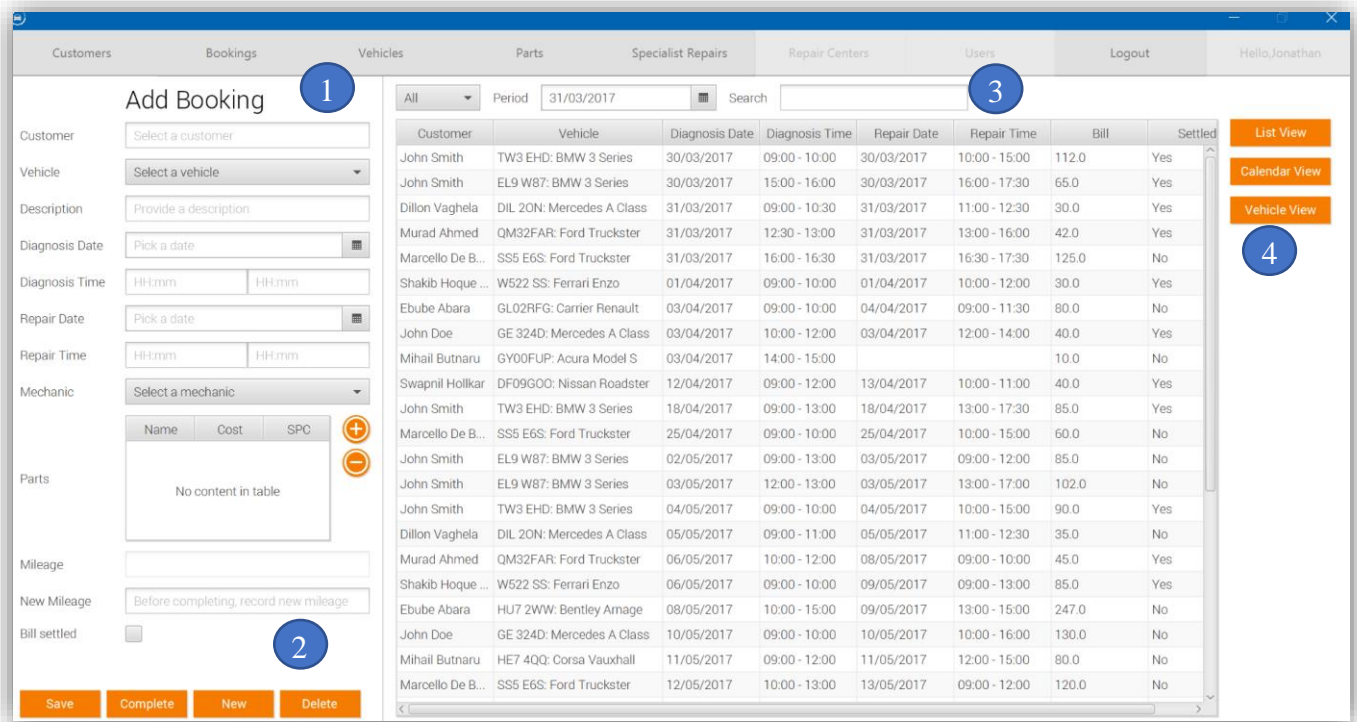

Figure 1: (1) the details pane for viewing, editing and adding bookings (2) the buttons to commit or discard changes (3) time period filter and smart search bar (4) buttons to change views
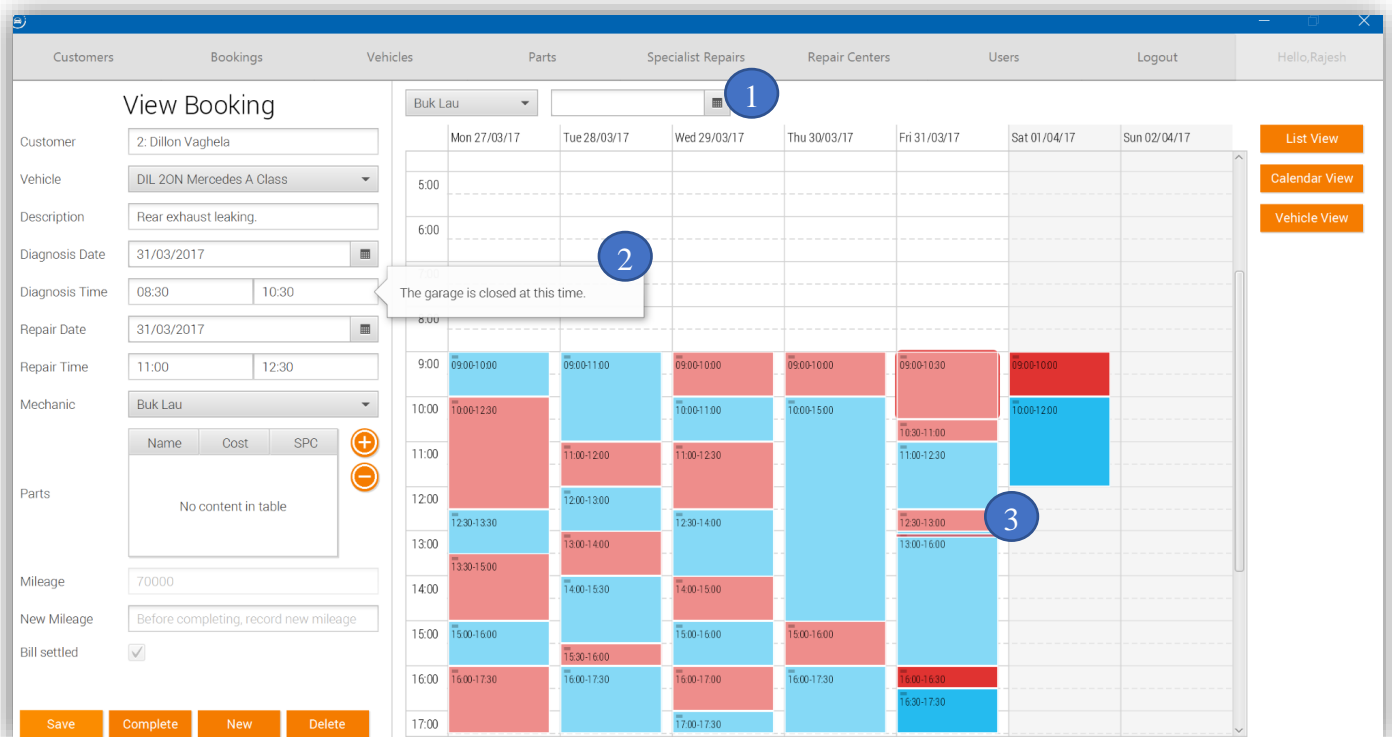

Figure 2: (1) mechanic picker and agenda week picker (2) a validation popover, showing an invalid appointment time (3) current time separator on agenda, note more intense colors after the line

Figure 3: (1) vehicle pane displaying all vehicles (2) bookings pane showing all bookings of selected vehicle

1. **View existing "diagnosis and repair" bookings**. – TEST PASSED

   Action: the user selects the "bookings" tab. By default, the booking screen displays a table with all bookings. The user can also switch to an agenda view, or a split-table vehicles and bookings view, by clicking on the buttons at the right edge of the bookings screen (figure 1, item 4).

   Postcondition: the user sees existing bookings.

2. **Search for a booking by partial vehicle registration number** – TEST PASSED

   Action: if necessary, the user clicks on the "list view" button to see the default booking list. The user types the partial vehicle registration "TW" into the search bar (figure 1, item 3). Automatic search occurs at every keypress. Search returns any booking matching the query either in registration number, customer name, vehicle manufacturer etc. – no need to select list filters.

   Postcondition: the user sees all bookings with a vehicle registration containing the letters "TW", filtered to the specified time range (by default "all time").

Figure 4: search by vehicle registration
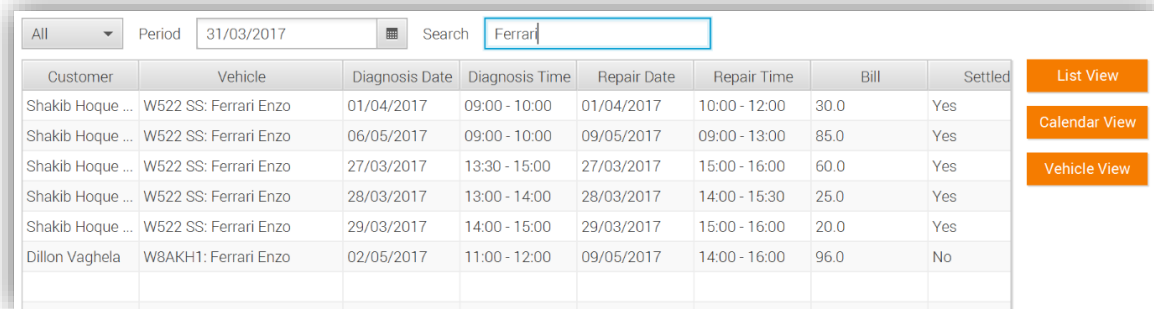
3. **Search for a booking by vehicle template** – TEST PASSED

   Action: A vehicle template consists of a model and a manufacturer. The user types either of these details into the search bar. In this test, the user begins typing "Ferrari" as a vehicle template. Alternatively, the user could do the same with the vehicle model.

Postcondition: the user sees all bookings for "Ferrari" vehicles. This is effectively equivalent to searching by a Ferrari vehicle template.
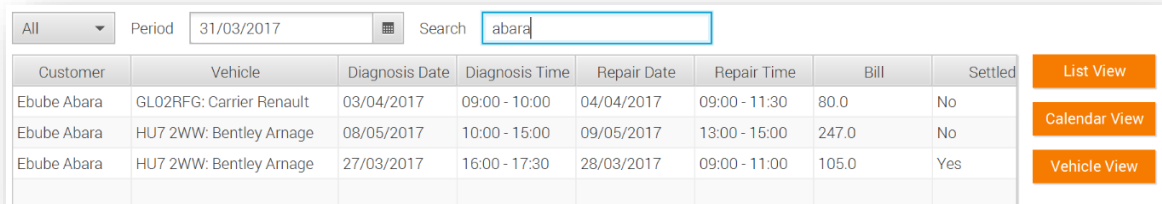

Figure 5: search by vehicle template

4. **Search for a booking by customer surname** – TEST PASSED

   Action: the user types in the surname "Abara" in the search bar.

   Postcondition: the user sees all bookings for the customer Ebube Abara.

Figure 6: searching by customer surname

5. **Select a "diagnosis and repair" booking and view details**. – TEST PASSED

   Precondition: within the bookings tab, the user is in any of the three display modes (booking list, agenda or split-pane vehicle list). All three allow for selecting bookings and viewing details.

   Action: in this test, the user decides to view a booking's detail through the agenda ("Calendar View"), though the same can be achieved from any of the three views. In the agenda, the user uses the date picker to select the week he wants to view. The user double-clicks on any booking slot to view its details.

   Postcondition: the details of the selected booking populate the fields in the left details pane (figure 1, item 1).

6. **View list of future bookings**. – TEST PASSED

   Action: the user can view future bookings by filtering time periods in the main bookings list (the "List View"), but the easiest way to distinguish future bookings is to use the agenda. In the agenda, a red line separates past bookings from future bookings (figure 2, item 3). Also, past bookings are displayed with more faint colours than future bookings. The user can now navigate through the future bookings using the week picker at the top of the agenda.

   Postcondition: the user can see future bookings, easily distinguished from past bookings.

7. **Select a future "diagnosis and repair" booking and view details**. – TEST PASSED

   See a combination of the steps outlined in test cases 6 and 5.

8. **Attempt to make a booking outside of working hours or work day**. – TEST PASSED

   Action: the user fills in the booking details correctly, but inputs 08:30 on a Monday as the start time of the booking (the garage opens at 9). The user clicks the "save" button.

   Postcondition: a popover appears over the time field, informing the user that the garage is closed at the specified time. The save is rejected (figure 2, item 2).

9. **Edit the mileage of a vehicle associated with a past booking**. – TEST PASSED

Action: in this system, a vehicle's updated mileage can only be set (and must be set) when a booking is being marked as "complete". A past booking that has not yet been completed is eligible for being completed. A completed booking cannot be edited. The user selects a past booking that has not yet been completed, and inputs a new mileage in the "New Mileage" field at the bottom of the details pane, and clicks "complete".

Postcondition: the booking's vehicle's mileage is updated, and the booking is marked as complete. The booking's details, including the vehicle's mileage, can no longer be changed.

10. **Create a new "diagnosis and repair" booking**. – TEST PASSED

    Action: The user inputs details for the booking. The minimum required is a customer, a vehicle, a mechanic, and a diagnosis date and time. The distinction between a "diagnosis time" and a "repair time" is discussed in the design section. In this test, the user adds a new booking for Elon Musk's vehicle EL9 W87, which has 5 bookings before the addition. The users adds a new booking with arbitrary details.

    Postcondition: the new booking is saved to the database, and can be seen on the agenda as well as the lists.

11. Logout, close application and log back in. Show created record is persistently stored. – TEST PASSED

    Precondition: the user is logged in.

    Action: the user logs out, and then logs in again. The user selects the bookings tab. One way to view the new booking is through the vehicles-bookings split pane ("Vehicle View"), which the user accesses (figure 3, items 1 and 2). From the list of vehicles, the customer selects the vehicle EL9 W87, used in the previous test.

    Postcondition: the user can see the new booking, 6th on the list, stored in the list of bookings for the vehicle.