**Exercise 1**

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| **Customers** | **CarSales** | **Cars** |
| custId  userName  password  firstName  lastName  address  city  postalCode | custId  carId  paymentDate  orderStatus  amountPaid    (You may include credit card payment details) | carId  brandName  modelName  price  color    (Any other two features of cars) |

In this assignment you will develop an Android app that allows the customer to buy a car and this app should provide all the necessary information (see the entities info). Use a **Room persistence library and MVVM pattern** (as shown in class examples in week 6 and week 7) to create and manipulate the application's database. Create the following entities:

Feel free to add more fields to the entities to make it real world app and Your application should contain the following activities: (You have a freedom to customize your activities and UI layouts, discussion is appreciated in the classroom)

1. The main activity that handles the navigation. **[4 marks]**
2. The login activity will **allow the customers to login**. Use custId or username with password as a user credentials for customer’s login. Use **Shared Preferences to store user name** after successful login. **[4 marks]**
3. The customer activity will allow the **customers to enter/view customer information**. **[4 marks]**
4. The customer update activity will allow **the customer to update/display customer information**. **[4 marks]**
5. The car activity will allow to enter **cars data as a hard-coded input or create an input UI** to get cars data. **[4 marks]**
6. The sales activity will allow the **customer to view car information for a given car brand and model** and also allow the customer buy car. (checkout) **[6 marks]**
7. Provide a **friendly and easy to navigate UI. Use images and image buttons**. **[4 marks]**