

CLASS DIAGRAM

```
public class UserInterface
```

UserInterface Class	Method Descriptions: This class in MRRC features the user interface in the main program.
Methods	
Main	

```
public class Customer
```

Customer Class	Method Descriptions: // This method "Consumer" creates a customer public void Consumer (string title, string first, string last, Gender gender, string dob) // The following method should read data from the customer.csv file and display it to the console. public void Customer_Display ()
Fields	
count2 : int customerDOB : string customerFIRST : string customerGEN : Gender customerID : int customerLAST : string customerTITLE : string	
Properties	
CustomerDOB : string CustomerFIRST : string CustomerGEN : Gender CustomerID : int CustomerLAST : string CustomerTITLE : string	
Methods	
Consumer() : void Customer_Display() : void	
Nested Types	
Gender Enum	
Male Female Other	

```
public class CRM
```

CRM

Class

Fields

- customer_save_key : string
- Customer_To_Catch : int
- delete_id2 : int
- position_id2 : int
- Rentals_Dailyrate_2 : string
- save_key_customer : string
- title_e_public : DateTime
- user_compare : int
- user_id : int
- Vehicle_COMPARE_2 : string
- Vehicle_REGO_2 : string

Properties

- Delete_ID2 : int
- Position_ID2 : int
- User_COMPARE : int
- User_ID : int

Methods

- GetCustomer() : void
- ModifyCustomer() : void
- RemoveCustomer() : void
- Rental_Price_Finder() : void
- SaveDeletedCustomer() : void

Method Descriptions:

// This method checks to see if a customer is currently renting or not.

```
public void GetCustomer()
```

// The ModifyCustomer method changes the selected customer to what the user fills in the provided fields with.

```
public void ModifyCustomer()
```

// This method should remove the inputted customer from the file given they are not currently renting.

```
public void RemoveCustomer()
```

// This method saved the file after a customer is deleted.

```
public void SaveDeletedCustomer()
```

// This method finds the daily rate that corresponds to a vehicle being rented.

```
public void Rental_Price_Finder()
```

```
public class Vehicle
```

Vehicle

Class

Fields

- count2 : int
- gpscheck : bool
- sunnyroof : bool
- temp_GPS : string
- temp_sunroof : string
- vehicleColour : string
- vehicleDailyrate : double
- vehicleFuel : FuelType
- vehicleGPS : string
- vehicleGrade : VehicleGrade
- vehicleMake : string
- vehicleModel : string
- vehicleNumseats : int
- vehicleRegistration : string
- vehicleSunroof : string
- vehicleTrans : TransmissionType
- vehicleYear : int

Properties

- VehicleCOLOUR : string
- VehicleDAILYRATE : double
- VehicleFUEL : FuelType
- VehicleGPS : string
- VehicleGRADE : VehicleGrade
- VehicleMAKE : string
- VehicleMODEL : string
- VehicleNUMSEATS : int
- VehicleREGISTRATION : string
- VehicleSUNROOF : string
- VehicleTRANSMISSION : TransmissionType
- VehicleYEAR : int

Methods

- Vehicle_Display() : void
- Vehicles() : void

Nested Types

FuelType

Enum

- Petrol
- Diesel

TransmissionType

Enum

- Manual
- Automatic

VehicleGrade

Enum

- Economy
- Family
- Luxury
- Commercial
- Custom

Method Descriptions:

// This method displays the contents of fleet.csv to the console in the form of a table.

```
public void Vehicle_Display()
```

// The Vehicles method adds a new vehicle to the file of vehicles fleet.csv .








```
public void Vehicles(string registration,
    VehicleGrade grade, string make,
    string model, int year, int numSeats,
    TransmissionType transmission,
    FuelType fuel, bool GPS, bool sunRoof,
    double dailyRate, string colour)
```

```
public class Fleet
```







Fleet

Class







Fields

-  countup : int
-  delete_rego : string
-  position_rego : string
-  rentals_dailyrate : string
-  save_key : string
-  vehicle_compare : string
-  vehicle_rego : string

Properties

-  COUNTUP : int
-  Delete_REGO : string
-  Position_REGO : string
-  Rentals_Dailyrate : string
-  Vehicle_COMPARE : string
-  Vehicle_REGO : string

Methods

-  IsRented() : void
-  Modify_Vehicle() : void
-  RemoveVehicle() : void
-  Save_file() : void
-  Vechicle_Finder() : void
-  Vehicle_matcher() : bool

Method Descriptions:

// This method checks to see if the current customer is renting or not.

```
public void IsRented(string registration, string key)
```

// This method modifies the vehicle at the given registration.

```
public void Modify_Vehicle(string registration, int counter)
```

// This method removes a vehicles from the fleet.csv file.

```
public void RemoveVehicle(int position, string rego_display)
```

// This method saves the file fleet.csv if a vehicle has been modified or deleted.

```
public void Save_file(string save_key)
```

// This method finds the vehicle within the file fleet.csv

```
public void Vehicle_Finder(string registration, string key)
```





































// This method matches the registration of the vehicles in the file fleet.csv. returning true if no match and returning false if match

```
public bool Vehicle_matcher(string registration)
```






```
public class Rental
```

Rental Class













Fields

-  checked_id : int
-  checked_rego : string
-  Colour_Search : string
-  count_match_copy : int
-  count_or : int
-  customer_rentedcheck : int
-  daily_rate_finder : string
-  DailyRate_Search : string
-  Fuel_Search : string
-  GPS_Search : string
-  Grade_Search : string
-  ID_Rent_Vehicle : int
-  id_to_match : string
-  Make_Search : string
-  match_checker : bool
-  match_counter_and : int
-  match_counter_or : int
-  match_looker : string
-  Model_Search : string
-  NumSeats_Search : string
-  positions_mixedoperator : IList<int>
-  registration_count : int
-  registration_finder : string
-  Registration_Rent_Vehicle : string
-  Registration_Search : string
-  registration_to_match : string
-  rego_rentedcheck : string
-  remove_registration : string
-  save_numbers : IList<int>
-  save_numbers_2 : IList<int>
-  SunRoof_Search : string
-  tester : string
-  Transmission_Search : string
-  Vehicle_Rental_COMPARE : string
-  Vehicle_Rental_REGO : string
-  Year_Search : string

Properties

-  Checked_ID : int
-  Checked_Rego : string
-  CUSTOMER_RENTEDCHECK : int
-  Daily_Rate_Finder : string
-  REGO_RENTEDCHECK : string

Methods

-  Array_position_finder() : void
-  Main() : void
-  Match_Search() : void
-  Number_Saver() : void
-  Remove_Rental() : void
-  Remove_Rental_ID() : void
-  Rent_Vehicle() : void
-  Rental_matcher() : bool
-  Rentals_read() : void
-  Save_rental() : void
-  Search_Match_Builder() : void
-  Search_Term_Process() : void

Method Descriptions:

// This method reads the rentals in the file and displays them to the console.

```
public void Rentals_Read()
```

```
public void Array_position_finder()
```

// This does nothing

```
Main()
```

// Matches

```
public void Match_Search()
```

// This removes any unwanted matches from and advance search.

```
public void Number_Saver()
```

// As the name implies it removes a rental from file if it meets the validations.

```
public void Remove_Rental()
```

// As the name suggest this method takes in an ID and checks if is should be deleted by Remove_Rental().

```
public void Remove_Rental_ID()
```

// This is used to see if a customer/vehicle are currently renting or not. Acts as a valindication.

```
public void Rental_matcher()
```

// If modifying the rentals file is successful this method is called to save the adjustments.

```
public void Save_rental()
```

// Use of this method is so that any matches found by the search are printed out to the screen using this method.

```
public void Search_Match_Builder()
```

// This takes in the search term and determines what type of search it is going to be.

```
public void Search_Term_Process()
```