Design a **Car model class under package :package5** with the following attributes:

Member Field Name	**Type**
licenceNumber	String
Model	String
currentMileage	Double
engineSize	Integer

Mark all the attributes as private & Create default & parameterized constructors.

Design another **class as Main** under **package :package5**, where you need to implement logic as follows:

- Declare an array as Car with size N , where N is to be accepted from user.
- Take N Car's information from user and store them in specified array.
- Call **sortCarList** method from **Main class** to get all cars information sorted based on Model name and display then within Main class after returning back from the specified method.
- From Main class car array need to pass within **sortCarList** method which return sorted car array and then display all car information on console.

Design **sortCarList** method in **Car class** as follows:

- it will take a car array and return car array
- it will sort array based on model value given in each car as its information.

```
package package5;

public class CarModel {
	private String licenceNumber;
	private String model;
	private double currentMileage;
	private int engineSize;


	public String getLicenceNumber() {
		return licenceNumber;
	}

	public void setLicenceNumber(String licenceNumber) {
		this.licenceNumber = licenceNumber;
	}

	public String getModel() {
		return model;
	}

	public void setModel(String model) {
		this.model = model;
	}

	public double getCurrentMileage() {
		return currentMileage;
	}

	public void setCurrentMileage(double currentMileage) {
		this.currentMileage = currentMileage;
	}

	public int getEngineSize() {
		return engineSize;
	}

	public void setEngineSize(int engineSize) {
		this.engineSize = engineSize;
	}

	public CarModel() {
		licenceNumber = "None";
		model = "None";
		currentMileage = 0;
		engineSize = 0;
	}
	public CarModel(String licenceNumber, String model, double currentMileage,int engineSize) {
		this.licenceNumber = licenceNumber;
		this.model = model;
		this.currentMileage = currentMileage;
		this.engineSize = engineSize;
	}

	public static CarModel[] sortCarList(CarModel[] cars) {

		CarModel temp = new CarModel();
		for(int i = 0; i < cars.length-1; i++) {
			for(int j = 0; j < cars.length-1-i; i++) {

				if(cars[j].getModel().compareTo(cars[j+1].getModel()) > 0) {
					temp = cars[j];
					cars[j] = cars[j+1];
					cars[j+1] = temp;
				}
			}
		}

		return cars;
	}


}
```


```
package package5;

import java.util.Scanner;


public class Main {

	public static void main(String[] args) {
		Scanner input = new Scanner(System.in);
		System.out.print("Enter the number of cars : ");
		int n = input.nextInt();
		CarModel[] cars = new CarModel[n];

		setCarsModel(cars);
		CarModel[] sortedCarModels = CarModel.sortCarList(cars);

		getCarsModel(sortedCarModels);

		input.close();
	}

	public static void setCarsModel(CarModel[] cars) {
		Scanner input = new Scanner(System.in);
		for(int i = 0; i < cars.length; i++) {
			System.out.print("Enter licence number : ");
			String licenceNumber = input.next();

			System.out.print("Enter model : ");
			String model = input.next();

			System.out.print("Enter Current Mileage : ");
			double currentMileage = input.nextDouble();

			System.out.print("Enter Engine Size  : ");
			int  engineSize = input.nextInt();

			cars[i] = new CarModel(licenceNumber, model, currentMileage, engineSize);

		}

		input.close();
	}

	public static void getCarsModel(CarModel[] cars) {
		for(int i = 0; i < cars.length; i++) {
			System.out.println("Licence number : " + cars[i].getLicenceNumber());
			System.out.println("Model : " + cars[i].getModel());
			System.out.println("Current Mileage : " + cars[i].getCurrentMileage());
			System.out.println("Engine Size : " + cars[i].getEngineSize());
			System.out.println("================================================");
		}
	}

}
```

output:

```
Enter the number of cars : 2
Enter licence number : b
Enter model : b
Enter Current Mileage : 1
Enter Engine Size  : 1
Enter licence number : a
Enter model : a
Enter Current Mileage : 2
Enter Engine Size  : 2
Licence number : a
Model : a
Current Mileage : 2.0
Engine Size : 2
================================================
Licence number : b
Model : b
Current Mileage : 1.0
Engine Size : 1
================================================
```