**ASSIGNMENT I**

**CAR SALES SOFTWARE**

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**1 Identify the problem**

Vehicle purchase problem

**2 understand the problem**

When people select and buy vehicles, they often cannot find the car they want or don’t know enough about various types of vehicles in detail. Difficult to buy a suitable vehicle

**3 Solve the problem**

A. Go to the physical store to choose the vehicle yourself

B. Learn about recommendations through friends around you

C. Browse and purchase through online platforms.

**4 The best way**

Solve the problem of vehicle purchase through online platforms.

**5 Explanation of solution**

1) Users need to fill in their own information: name, phone number

2) After completing the previous step, fill in the type of vehicle you want to buy (car, MPV, SUV, sports car, truck)

3) After completing the previous step, the selected type of vehicle and price as well as the level of vehicle configuration will be displayed.

4) After the selection is completed, you need to fill in the estimated pick-up date and select the pick-up method: pick up or deliver the car to the designated location by the staff (additional labor costs)

5) If you choose to send the car by the staff, you need to fill in the address, otherwise you don’t need to

6) Display the total price and details

6 The formula table

|  |  |  |
| --- | --- | --- |
| Car | Low-level version | Premium version |
| Audi A6 | 280,000RM | 430,000RM |
| COROLLA | 73,000RM | 93,000RM |
| LAVIDA | 73,000RM | 99,000RM |

|  |  |  |
| --- | --- | --- |
| MPV | Low-level version | Premium version |
| Odyssey | 146,000RM | 233,000RM |
| Trumpchi M8 | 120,000RM | 246,000RM |
| SGMW-Victory | 60,000RM | 93,000RM |

|  |  |  |
| --- | --- | --- |
| SUV | Low-level version | Premium version |
| Audi Q5L | 266,000RM | 319,000RM |
| HONDA-CR-V | 113,000RM | 186,000RM |
| Haval H6 | 66,000RM | 100,000RM |

|  |  |  |
| --- | --- | --- |
| Sports Car | Low-level version | Premium version |
| Ferrari F8 | 1,994,000RM | 2,266,000RM |
| Aston Martin V8 Vantage | 1,130,000RM | 1,389,000RM |
| Porsche 718 | 365,000RM | 1,050,000RM |

|  |  |  |
| --- | --- | --- |
| Truck | Low-level version | Premium version |
| FAW Heavy truck | 180,000RM | 306,000RM |
| IVECO | 73,000RM | 106,000RM |
| SGMW | 27,000RM | 40,000RM |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 |
| Price<100,000RM | Vehicle cleaning kit |  |  |  |  |
| 100,000RM<= Price <300,000RM | Vehicle cleaning kit | A gas card worth 1,000 |  |  |  |
| 300,000RM<= Price <500,000RM |  | A gas card worth 1,000 | Free maintenance once a year for five years | 10 times free car washes per year |  |
| 500,000RM<= Price <1,000,000RM |  |  | Free maintenance twice a year for seven years | 15 times free car washes per year | Set of leather seats |
| 1,000,000RM<= Price <2,000,000RM | All service items are free for life | | | | |

**7 Algorithm**

1. Get the user's name and mobile phone number.

2. Show all car types options for users to choose

3. Get the type of car selected by the user

4. Display the car name of the type selected by the user for the user to choose

5. Get the car name selected by the user

6. Display the price of the two versions of the car selected by the user for the user to choose

7. Get the car version selected by the user

8. Judge the gift given according to the price of the car version selected by the user:

Total price <100,000RM: Vehicle cleaning kit

100,000RM<=Total price<300,000RM: Vehicle cleaning kit + fuel card worth 1,000;

300,000RM<=Total price<500,000RM: free maintenance once a year within five years + free car wash 10 times a year + fuel card worth 1,000;

500,000RM<=Total price<1,000,000RM: Two free inspections per year for seven years + 15 free car washes per year + one set of leather seats;

1,000,000RM<=Total price<2,000,000RM: All service items are free for life;

9. Display the price of the car selected by the user and the gift given

10. Two pick-up services, self-pickup and employee delivery, are displayed for users to choose from

11. Get the type of pick-up service selected by the user

12. Display the user's name, mobile phone number, the name and version of the selected car, and the way to pick up the car

**8 Pseudocode**

Output "Welcome to Car online sales platform"

Input name

Input phone number

Output all types of cars

Input The number of the type the user want

Output Selected type of cars

Input the number of the car the user want

Output the price of the selected car of two version

Input the number of the version the user want

Output the price and gifts in this price range

Calculate Price<100,000RM

100,000RM<= Price <300,000RM

300,000RM<= Price <500,000RM

500,000RM<= Price <1,000,000RM

1,000,000RM<= Price <2,000,000RM

Output two way for user to pick up the car

Input the number of the way of pick up the car the user want

Output the way user selected of pick up the car

Output the car user selected and the version

Output “Thank you for your consumption, we will communicate with you on the phone at any time if there is any situation.”

Output name

Output phone number

**9 Flow chart**

Output: Welcome to Car online sales platform

Input: name and phone

Output: 1.Car 2.MPV 3.SUV 4.Sports Car 5.Truck

number

Number=1

1.Audi A6 2.COROLLA 3.LAVIDA "Please select the Car you want to know"

Type=1

Price

1.low-level 2.premium

Level=1

Price<100000

Vehicle cleaning kit

Price<100000

Price<100000

Price<100000

Price<100000

Type=2

Type=3

1.low-level 2.premium

1.low-level 2.premium

Level=2

Level=1

Level=2

Level=1

Level=2

Price

Price

Price

Price

Price

Vehicle cleaning kit+ A gas card worth 1,000

A gas card worth 1,000+ Free maintenance once a year for five years+10 times free car washes per year

Free maintenance twice a year for seven years+15 times free car washes per year+ Set of leather seats

All service items are free for life

The way to pick up the car

Way=1

Way=2

delivered by staff

pick up by yourself

Output all information