Explanation of working of program:

* First we include necessary header files required for the proper execution of the program.(**iostream, iomanip, conio.h, stdlib.h, unistd.h, direct.h, fstream, vector.)**
* Then we create two base classes **Car and user** in which **Car is an abstract class.**
* **Car:** In this class we have included pure virtual functions, **spec() and comprent()** which are made public.
* **user:** In this class we have declared six variables (**userno, dlno, carno** as string and rent, day, total as int data type) and two functions (**userinput(), display()** )
* userno, dlno, carno are used to store the user number, DL number, Car registration number of the user.
* **userinput():** Through this function we take input from the user regarding above three variables using cout and cin. Then we clear the system screen using system(“CLS”).
* **display():** In this function we have declared one variable carname of string type to store the name of the car selected by the user. Then using cout and setw() we print out the invoice which contains name, car model no, DL no, reg no, car name, day, total and day to clear the total fees and returning of the car.
* **Next** we create three derived classes (**Benz, honda, Hyundai**) for which Car and user are used as base class with access specifier as public. **So we achieve multiple inheritance here.**
* Inside each of these derived class we have defined the virtual fuctions according to the model of the car. Inside **spec()** we have specified the functionalities of the car. Inside **comprent()** we are calculatingthe rent of the car for required days based on the cost of rent of each car model. We have also used system(“CLS”) to clear the screen.
* Then we have defined a functions before main() namely **login().**
* **login():**Inside this function we have declared two variables **pass** which is string type and **ch** which is character type. We use \_getch() to read individual characters entered by the user and initialize it to ch variable. Then we use while loop to pushback the entered characters into pass variable using pushback() function. If entered characters is same as the password then acess will be granted otherwise it print access denied and it will loop back the login function.
* Then we have declared another class **welcome.** Inside this class we have declared and defined **welcum()** using public access specifier.
* **welcum():** In this function we have used ifstream to read files in the specified folder and getline() to store the content in file in the declared str variable.Then we print this value using cout and close the opened file using close(). We have also used sleep()-to delay the execution for few seconds and system(“CLS”) to clear the screen.
* Now we have beginning with **main().**(Execution starts from here)
* Here first we have created **w** object of class welcome. Then we have invoked **welcum() using** dot operator and **login()** directly. We have used**2D vectors** with row and column iterator(auto) to print out car model and their rent cost. Then we have created pointer to Car and user type namely **c** and **a** respectively. Then we print out car model name and give choice for user to select the model. We have used while loop with switch along with three cases 1,2,3 which is based on user choice. Based on the selected choice , inside the cases we have created objects of respective derived class and assigned its address to pointer and also a has been pointed to display fuction. After exiting the loop we have pointed to **userinput(), spec(), comprent(), display()** functions using [**->**], so that respective functions of the derived class will be executed . By this we have implemented **runtime polymorphism.**Finally, we print out “Thank you” text using ifstream and getline, and close the file using close(). We have also included sleep() and system(“CLS”) for better handling of interface by the user.