

Design Document

Purpose:

This program will do the following tasks:

- Windshield Repair during the summer
 - Repair in case of small cracks
 - Replacement in case of big cracks in the windshield
- Car washing during the winter
 - Inner wash only
 - Inner and Outer wash

If this is a customer who has visited this company in a prior visit, a 20% discount on all total charges/servicing will be offered.

These will be the charges for the services offered:

- | | |
|---|---------|
| ▪ Repair in the case of small cracks | CAD 100 |
| ▪ Replacement in case of big cracks in the windshield | CAD 150 |
| ▪ Inner wash only | CAD 80 |
| ▪ Inner and Outer wash | CAD 200 |

All records are to be saved to a file.

Briefing about classes/functions/objects:

It will include `iostream`, `fstream`, and `string`. It will also use namespace `std`.

Classes:

- There will be a windshield repair class during the summer, named `WindShieldRep`

- It will contain the public variables: int smallcrack, the cost of repairing a small crack, it will also contain the variable int bigcrack, for the cost of repairing a big crack, and int numofrepairs, the number of repairs
- It will contain the function summerBill(), will add the cost of the windshield repair, and ask the user what they want to do
- There will be a car washing during the winter class, it will be called CarWash
 - It will contain the public variables: int inwash, the cost of an inner wash, and int inoutwash, for the cost of an inner and outer wash, int numofwashes, the number of washes
 - It will contain the function winterBill(), which will add the cost of the car washing, and ask the user what they want to do
- There will be a UserInfo class, asking the user for their surname, id and age
 - It will contain the public variables: char surname[50] and int age
 - It will contain the function getInfo(), to ask the user for their information

Functions:

- There will be a function called discount(), which will see if the user has visited the store before, and offer them a 20% discount if they have

Main file (main.cpp):

- The program will welcome the user to the company
- The entire code will be encased inside a do while loop, which will ask at the end if there are any more customer whose information needs to be inputed
- A file will be opened to write on, and named carcompanyreceipt.txt, by the use of a fstream **object** called write, it will also be opened by a fstream object called read

- There will be a character array called check, and another called id, the object called read will be linked to an eof function, and if the id the user provided matches with the check array, a counter will add 1 (it begins set as zero)
- Another **object**, called info from class UserInfo will be called on to get the users information
- The user will be asked if they if it is the winter or summer
- If it is summer, the WindShieldRep **object** will be created and the function will be called
- If it is winter, the CarWash **object** will be created and the function will be called
- The program will then call the discount function and if the counter is equal to 1, it will offer the user a 20% discount, to a variable called total
- All of the user's information will be stored into the file
- The program will ask if there is another customer, if yes, the program will continue, if no, it will end the program