```
Script started on 2023-10-25 13:13:40-05:00 [TERM="xterm" TTY="/dev/pts/5" COLUMNS
ee43254@ares:~$ pwd
/home/students/ee43254
ee43254@ares:~$ cat carwash.info
Name: Kyle Enkhzul

Class: CSC121-001


Activity: Hot Wax with That, Mister?

Level: 5, 4 (base program), 1 (generate random wash code)


Description:


This program simulates a carwash experience for the consumer. The consumer

is prompted if they want a carwash and if so what kind of car wash. They get to

choose from three different types, Super, Premium, or Ultra. Each type of car

wash has a certain price which then the consumer is asked if the price is ok

with them. If not, they are reprompted if they want a car wash again and the

program iterates through the questions until the consumer does not want a car

wash or gets a car wash and accepts the fee. ee43254@ares:~$ show-code carwash.cpp


carwash.cpp:

     1  #include <iostream>
     2  #include <limits>
     3
     4  using namespace std;
     5
     6  constexpr streamsize INF_FLAG{numeric_limits<streamsize>::max()};
     7
     8  void generateCode() {
     9      unsigned long random = (static_cast<unsigned long>(rand() %
    10          (9999999 - 1000000 + 1000000) + 1000000));
    11      cout << "\nGood, your wash code is " << random
    12              << ". It will be good until noon on Friday\n";
    13  }
    14
    15  int main() {
    16      double cost_of_super = 5.00,
```

```
    17          cost_of_premium = 6.00,
    18          cost_of_ultra = 8.00;
    19      char yes_no, choice, answer;
    20
    21      srand(static_cast<unsigned>(time(nullptr)));
    22
    23      cout << "\t\t Welcome to Kyle's Gas'n'Go Car Wash System!!!\t\n";
    24      cout << "\nWould you like a car wash today? ";
    25      cin >> yes_no;
    26      cin.ignore(INF_FLAG, '\n');
    27
    28      while(toupper(yes_no) != 'N') {
    29          cout << "\nWhich wash would you like: Super, Premium, or Ultra? ";
    30          cin >> choice;
    31          cin.ignore(INF_FLAG, '\n');
    32
    33          choice = static_cast<char>(toupper(choice));
    34
    35          switch(choice) {
    36              case 'S':
    37                  cout.setf(ios_base::fixed);
    38                  cout.precision(2);
    39                  cout.width(7);
    40                  cout << "\nThat will be $" << cost_of_super
    41                      << ", is that okay? ";
    42                  cin >> answer;
    43                  cin.ignore(INF_FLAG, '\n');
    44                  if(toupper(answer) != 'N') {
    45                      generateCode();
    46                      yes_no = 'N';
    47                  }
    48                  else {
    49                      cout << "\nI'm sorry...\n";
    50                      cout << "\n\nWould you like a car wash today? ";
    51                      cin >> yes_no;
    52                      cin.ignore(INF_FLAG, '\n');
    53                  }
    54                  break;
    55              case 'P':
    56                  cout.setf(ios_base::fixed);
    57                  cout.precision(2);
    58                  cout.width(7);
    59                  cout << "\nThat will be $" << cost_of_premium
    60                      << ", is that okay? ";
    61                  cin >> answer;
    62                  cin.ignore(INF_FLAG, '\n');
    63                  if(toupper(answer) != 'N') {
    64                      generateCode();
    65                      yes_no = 'N';
    66                  }
    67                  else {
    68                      cout << "\nI'm sorry...\n";
    69                      cout << "\n\nWould you like a car wash today? ";
    70                      cin >> yes_no;
```

```cpp
71                    cin.ignore(INF_FLAG, '\n');
72                }
73                break;
74            case 'U':
75                cout.setf(ios_base::fixed);
76                cout.precision(2);
77                cout.width(7);
78                cout << "\nThat will be $" << cost_of_ultra
79                    << ", is that okay? ";
80                cin >> answer;
81                cin.ignore(INF_FLAG, '\n');
82                if(toupper(answer) != 'N') {
83                    generateCode();
84                    yes_no = 'N';
85                }
86                else {
87                    cout << "\nI'm sorry...\n";
88                    cout << "\n\nWould you like a car wash today? ";
89                    cin >> yes_no;
90                    cin.ignore(INF_FLAG, '\n');
91                }
92                break;
93            default:
94                cout << "\nI'm sorry, that choice is invalid! \n";
95                cout << "\nPlease try to read/type more carefully ";
96                cout << "next time\n";
97            }
98        }
99        cout << "\nThank you for using the KGnGCWS!! \n";
100       cout << "\nHave a good day! \n";
101   }
```

```
ee43254@ares:~$ CPP carwash
carwash.cpp***
.

ee43254@ares:~$ ./carwash.out
                Welcome to Kyle's Gas'n'Go Car Wash System!!!

Would you like a car wash today? yes

Which wash would you like: Super, Premium, or Ultra? super...man

That will be $5.00, is that okay? no way!

I'm sorry...


Would you like a car wash today? YES !!!!

Which wash would you like: Super, Premium, or Ultra? Ultra...man

That will be $8.00, is that okay? No can do

I'm sorry...
```

```
Would you like a car wash today? yuh...

Which wash would you like: Super, Premium, or Ultra? premioso por favor

That will be $6.00, is that okay? yeah...let me take out a loan first...

Good, your wash code is 6920596. It will be good until noon on Friday

Thank you for using the KGnGCWS!!

Have a good day!
ee43254@ares:~$ ./carwash.out
                Welcome to Kyle's Gas'n'Go Car Wash System!!!

Would you like a car wash today? y

Which wash would you like: Super, Premium, or Ultra? s

That will be $5.00, is that okay? y

Good, your wash code is 5683012. It will be good until noon on Friday

Thank you for using the KGnGCWS!!

Have a good day!
ee43254@ares:~$ exit
exit

Script done on 2023-10-25 13:15:06-05:00 [COMMAND_EXIT_CODE="0"]
```

```cpp
ce std;
5
6    constexpr streamsize INF_FLAG{numeric_limits<streamsize>::max()};
7
8    void generateCode() {
9        unsigned long random = (static_cast<unsigned long>(rand() %
10           (9999999 - 1000000 + 1000000) + 1000000));
11       cout << "\nGood, your wash code is " << random
12               << ". It will be good until noon on Friday\n";
13   }
14
15   int main() {
16       double cost_of_super = 5.00,
17               cost_of_premium = 6.00,
18               cost_of_ultra = 8.00;
19       char yes_no, choice, answer;
20
21       srand(static_cast<unsigned>(time(nullptr)));
22
23       cout << "\t\t Welcome to Kyle's Gas'n'Go Car Wash System!!!\t\n";
24       cout << "\nWould you like a car wash today? ";
25       cin >> yes_no;
26       cin.ignore(INF_FLAG, '\n');
```

```cpp
27          while(toupper(yes_no) != 'N') {
28              cout << "\nWhich wash would you like: Super, Premium, or Ultra? ";
29              cin >> choice;
30              cin.ignore(INF_FLAG, '\n');
31
32              choice = static_cast<char>(toupper(choice));
33
34              switch(choice) {
35                  case 'S':
36                      cout.setf(ios_base::fixed);
37                      cout.precision(2);
38                      cout.width(7);
39                      cout << "\nThat will be $" << cost_of_super
40                          << ", is that okay? ";
41                      cin >> answer;
42                      cin.ignore(INF_FLAG, '\n');
43                      if(toupper(answer) != 'N') {
44                          generateCode();
45                          yes_no = 'N';
46                      }
47                      else {
48                          cout << "\nI'm sorry...\n";
49                          cout << "\n\nWould you like a car wash today? ";
50                          cin >> yes_no;
51                          cin.ignore(INF_FLAG, '\n');
52                      }
53                      break;
54                  case 'P':
55                      cout.setf(ios_base::fixed);
56                      cout.precision(2);
57                      cout.width(7);
58                      cout << "\nThat will be $" << cost_of_premium
59                          << ", is that okay? ";
60                      cin >> answer;
61                      cin.ignore(INF_FLAG, '\n');
62                      if(toupper(answer) != 'N') {
63                          generateCode();
64                          yes_no = 'N';
65                      }
66                      else {
67                          cout << "\nI'm sorry...\n";
68                          cout << "\n\nWould you like a car wash today? ";
69                          cin >> yes_no;
70                          cin.ignore(INF_FLAG, '\n');
71                      }
72                      break;
73                  case 'U':
74                      cout.setf(ios_base::fixed);
75                      cout.precision(2);
76                      cout.width(7);
77                      cout << "\nThat will be $" << cost_of_ultra
78                          << ", is that okay? ";
79                      cin >> answer;
80
81                      cin.ignore(INF_FLAG, '\n');
82                      if(toupper(answer) != 'N') {
83                          generateCode();
84                          yes_no = 'N';
85                      }
86                      else {
87                          cout << "\nI'm sorry...\n";
88                          cout << "\n\nWould you like a car wash today? ";
89                          cin >> yes_no;
90                          cin.ignore(INF_FLAG, '\n');
91                      }
92                      break;
93
```