```
/*
*******************************************************************************
FILENAME        ohmslaw.cpp

Encoding        UTF-8

DESCRIPTION     Calculate Volt, Resistance, Ampere.

FUNCTIONS

NOTES           Menu language - Swedish

Compiler        g++ 9.3.0 amd64 running @ Ubuntu 20.04 LTS

Lang dialect    ISO C++14 (g++ by default uses option '-std=gnu++14')

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CHANGES

REF NO  VERSION     DATE (YYMMDD)   WHO DETAIL
-------------------------------------------------------------------------------
        1           2020-11-04      LK  Start date

*******************************************************************************
*/

#include <iostream>

using namespace std;

void current();
void resistance();
void voltage();

struct ohmsLaw {
    double current;
    double voltage;
    double resistance;
};

int main() {
    char chooseRunagain;
    do {
        char chooseCalculationUri;
        ohmsLaw uri;
        cout << "\nOhm's law" << endl;
        cout << "=========" << endl;
        cout << "Which calculation? Voltage (u), Resistance (r), Current (i)? ";
        cin >> chooseCalculationUri;
        chooseCalculationUri = tolower(chooseCalculationUri);
        if (chooseCalculationUri == 'u') {
            voltage();
        }
        else if (chooseCalculationUri == 'r') {
            resistance();
        }
        else if (chooseCalculationUri == 'i') {
            current();
        }
```

```
63          else {
64              cout << "Sorry! Wrong input! ";
65          }
66          cout << "Do you want to do a new calculation? Y/N? ";
67          cin >> chooseRunagain;
68          chooseRunagain = tolower(chooseRunagain);
69      } while (chooseRunagain != 'n');
70      return 0;
71  }
72
73  void voltage() {
74      ohmsLaw uri;
75      do {
76          cin.clear();
77          cin.ignore(100,'\n');
78          cout << "Resistance? ";
79          cin >> uri.resistance;
80      }
81      while (cin.fail());
82      do {
83          cin.clear();
84          cin.ignore(100,'\n');
85          cout << "Current? ";
86          cin >> uri.current;
87      }
88      while (cin.fail());
89      cout << "Result: Voltage = " << uri.resistance * uri.current << " V\n" << endl;
90  }
91
92  void resistance() {
93      ohmsLaw uri;
94      do {
95          cin.clear();
96          cin.ignore(100,'\n');
97          cout << "Voltage? ";
98          cin >> uri.voltage;
99      }
100     while (cin.fail());
101     do {
102         cin.clear();
103         cin.ignore(100,'\n');
104         cout << "Current? ";
105         cin >> uri.current;
106     }
107     while (cin.fail());
108     cout << "Result: Resistance = " << uri.voltage / uri.current << " Ohm\n" << end
l;
109 }
110 void current() {
111     ohmsLaw uri;
112     do {
113         cin.clear();
114         cin.ignore(100,'\n');
115         cout << "Voltage? ";
116         cin >> uri.voltage;
117     }
118     while (cin.fail());
119     do {
120         cin.clear();
121         cin.ignore(100,'\n');
122         cout << "Resistance? ";
123         cin >> uri.resistance;
```

```
124     }
125     while (cin.fail());
126     cout << "Result: Current = " << uri.voltage / uri.resistance << " A\n" << endl;
127 }
```