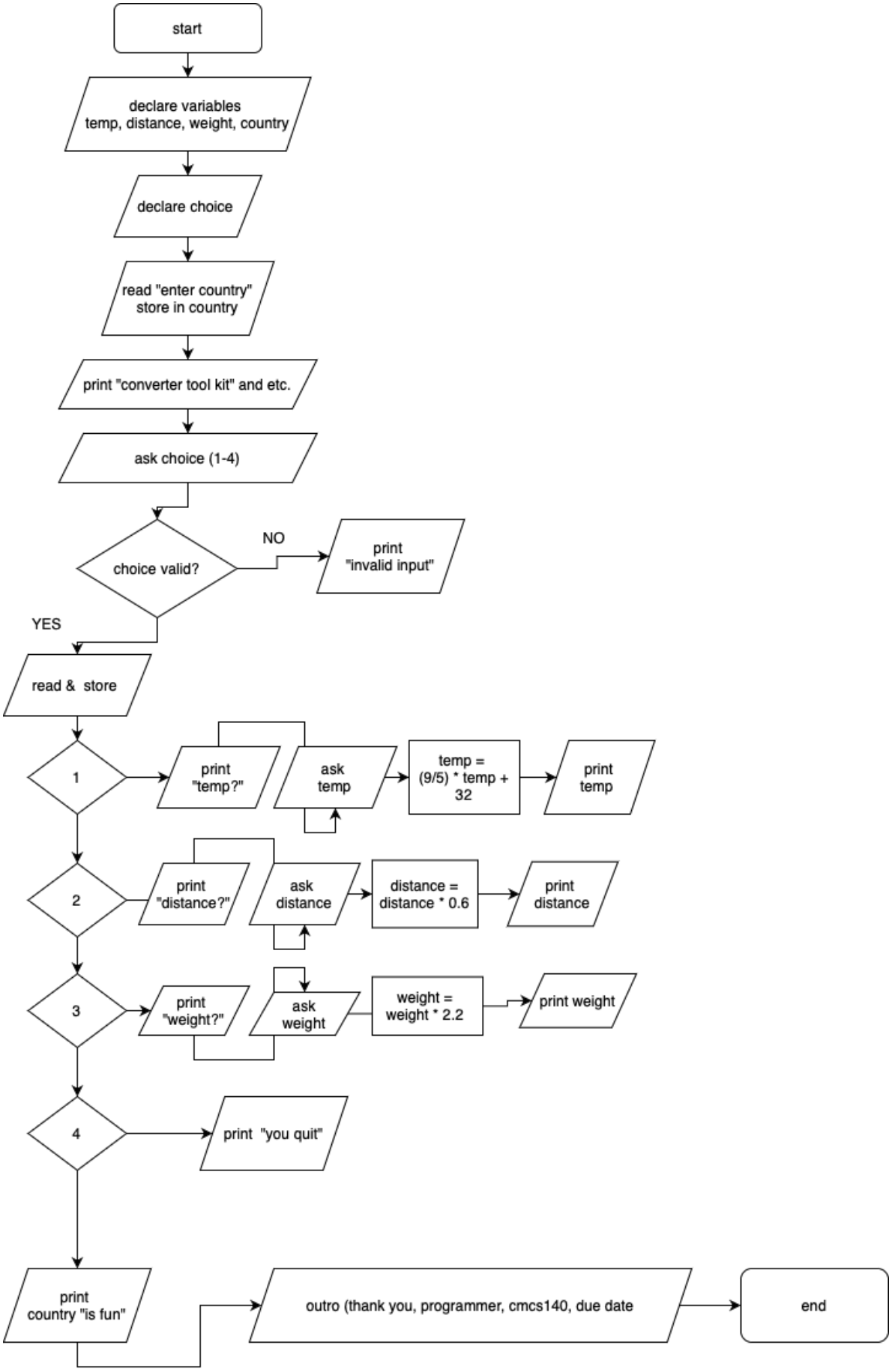
Pseudocode

```
Declare temp
Declare distance
Declare weight
Declare country
Declare choice
print “enter country”
Ask/getline country store in country
Print converter toolkit
Print “1. Temp”
Print “2. distance”
Print “3. weight”
Print “4. quit”
Ask number 1-4
Check if valid
If yes
Switch
In case 1 Ask temp, Convert temp, Print temp
In case 2 Ask distance, Convert distance,Print distance
In case 3, Ask weight, Convert weight, print weight
In case 4, read you quit
If no
Print invalid input
Print country
Print outro
```


start
declare variables
temp, distance, weight, country
declare choice
read "enter country"
store in country
print "converter tool kit" and etc.
ask choice (1-4)
choice valid?
NO
print
"invalid input"
YES
read & store
1
print
"temp?"
ask
temp
temp =
(9/5) * temp +
32
print
temp
2
print
"distance?"
ask
distance
distance =
distance * 0.6
print
distance
3
print
"weight?"
ask
weight
weight =
weight * 2.2
print weight
4
print "you quit"
print
country "is fun"
outro (thank you, programmer, cmcs140, due date
end

Test Case #	Input	Actual Input	Expected Output	Actual Output	Did the test pass?
1	Choice 1 Temp 20	68	68	68	yes
2	Choice 2 Distance -8	!!! Program does not convert negative weight !!!	Error message	!!! Program does not convert negative weight !!!	yes
3	Choice 3	0	error	**!!! Program does not convert negative weight !!!**	yes
4	Choice 4	**You quit :(**	quit	**You quit :(**	yes

Screenshot:

Valid input

```
Enter a Country Name:
United States
Converter Toolkit
---------------
1. Temperature Converter
2. Distance Converter
3. Weight Converter
4. Quit
Enter Your Choice (1-4):
1
please enter temperature in Celsius (such as 24):
14
it is 57 in Fahrenheit
United States sounds fun!

Thank You for testing my program !!
PROGRAMMER: Andrea Ongomefen
CMCS140 Common Project 2
Due Date: 9/15/2023
```

```
Enter a Country Name:
United States
Converter Toolkit
---------------
1. Temperature Converter
2. Distance Converter
3. Weight Converter
4. Quit
Enter Your Choice (1-4):
2
please enter distance in Kilometers:
34
it is 20.40 in Miles
United States sounds fun!

Thank You for testing my program !!
PROGRAMMER: Andrea Ongomefen
CMCS140 Common Project 2
Due Date: 9/15/2023
```

```
Enter a Country Name:
United States
Converter Toolkit
---------------
1. Temperature Converter
2. Distance Converter
3. Weight Converter
4. Quit
Enter Your Choice (1-4):
3
please enter weight in Kilograms:
30
it is 66.0 in Pounds
United States  sounds fun!

Thank You for testing my program !!
PROGRAMMER: Andrea Ongomefen
CMCS140 Common Project 2
Due Date: 9/15/2023
```

```
Enter a Country Name:
United States
Converter Toolkit
---------------
1. Temperature Converter
2. Distance Converter
3. Weight Converter
4. Quit
Enter Your Choice (1-4):
4
You quit :(
United States sounds fun!

Thank You for testing my program !!
PROGRAMMER: Andrea Ongomefen
CMCS140 Common Project 2
Due Date: 9/15/2023
```

Invalid input

```
Enter a Country Name:
United States
Converter Toolkit
---------------
1. Temperature Converter
2. Distance Converter
3. Weight Converter
4. Quit
Enter Your Choice (1-4):
5
your input is not valid
United States sounds fun!

Thank You for testing my program !!
PROGRAMMER: Andrea Ongomefen
CMCS140 Common Project 2
Due Date: 9/15/2023
```

```cpp
#include <iostream>
#include <iomanip>
using namespace std;

int main() {

    double temp;
    double distance;
    double weight;
    int choice;
    string country;

    cout << "Enter a Country Name: " << endl;
    getline(cin, country);

    cout << "Converter Toolkit" << endl;
    cout << "------------------" << endl;
    cout << "1. Temperature Converter" << endl;
    cout << "2. Distance Converter" << endl;
    cout << "3. Weight Converter" << endl;
    cout << "4. Quit" << endl;
    cout << "Enter Your Choice (1-4): " << endl;

    cin >> choice;

    if (choice > 0 && choice <= 4 ) {

        switch (choice) {

            case 1: // temperature conversion and message
                cout << "please enter temperature in Celsius (such as 24): " << endl;
                cin >> temp;
                temp = 1.8 * temp + 32;

                cout << "it is " << setprecision(0) << fixed << temp << " in Fahrenheit\n";
                    break;

            case 2: // distance conversion and message
                cout << "please enter distance in Kilometers: " << endl;
                cin >> distance;

                if (distance > 0){
                    distance = distance * .6;
                    cout << "it is " << setprecision(2) << fixed << distance << " in Miles\n";
                }
                else {
                    cout << "!!! Program does not convert negative distance !!!" << endl;
                }
                    break;

            case 3: // weight conversion and message
                cout << "please enter weight in Kilograms: " << endl;
                cin >> weight;
```

```
43
44      if (choice > 0 && choice <= 4 ) {
45
46          switch (choice) {
47
48              case 1: // temperature conversion and message
49                  cout << "please enter temperature in Celsius (such as 24): " << endl;
50                  cin >> temp;
51                  temp = 1.8 * temp + 32;
52
53                  cout << "it is " << setprecision(0) << fixed << temp << " in Fahrenheit\n";
54                      break;
55
56              case 2: // distance conversion and message
57                  cout << "please enter distance in Kilometers: " << endl;
58                  cin >> distance;
59
60                  if (distance > 0){
61                      distance = distance * .6;
62                      cout << "it is " << setprecision(2) << fixed << distance << " in Miles\n";
63                  }
64                  else {
65                      cout << "!!! Program does not convert negative distance !!!" << endl;
66                  }
67                      break;
68
69              case 3: // weight conversion and message
70                  cout << "please enter weight in Kilograms: " << endl;
71                  cin >> weight;
72
73                  if (weight > 0) {
74                      weight = weight * 2.2;
75                      cout << "it is " << setprecision(1) << fixed << weight << " in Pounds\n";
76                  }
77                  else {
78                      cout << "!!! Program does not convert negative weight !!!" << endl;
79                  }
80                      break;
81
82              case 4:
83                  cout << "You quit :(" << endl;
84
85              default:
86                  break;
87          }
88      }
89      else {
90          cout << "your input is not valid" << endl;
91      } // if input is not 1-4
92
93      cout << country << " sounds fun!\n";
94
95      cout << "" << endl;
```

```
59
60                  if (distance > 0){
61                      distance = distance * .6;
62                      cout << "it is " << setprecision(2) << fixed << distance << " in Miles\n";
63                  }
64                  else {
65                      cout << "!!! Program does not convert negative distance !!!" << endl;
66                  }
67                      break;
68
69              case 3: // weight conversion and message
70                  cout << "please enter weight in Kilograms: " << endl;
71                  cin >> weight;
72
73                  if (weight > 0) {
74                      weight = weight * 2.2;
75                      cout << "it is " << setprecision(1) << fixed << weight << " in Pounds\n";
76                  }
77                  else {
78                      cout << "!!! Program does not convert negative weight !!!" << endl;
79                  }
80                      break;
81
82              case 4:
83                  cout << "You quit :(" << endl;
84
85              default:
86                  break;
87          }
88      }
89      else {
90          cout << "your input is not valid" << endl;
91      } // if input is not 1-4
92
93      cout << country << " sounds fun!\n";
94
95      cout << "" << endl;
96      cout << "Thank You for testing my program !!\n";
97      cout << "PROGRAMMER: Andrea Ongomefen\n";
98      cout << "CMCS140 Common Project 2\n";
99      cout << "Due Date: 9/15/2023\n";
100
101     return 0;
102 }
103
```

Lessons Learned

Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.

What have you learned? I learned about how initialization works within a switch statement

What did you struggle with? Fahrenheit conversion because the fraction was input as a whole creating a problem in the solution

What would you do differently on your next project? Write more comments in my code

What parts of this assignment were you successful with, and what parts (if any) were you not successful with? Everything except multiplying fractions with int instead of double

Provide any additional resources/links/videos you used to while working on this assignment/project.

https://www.tenouk.com/clabworksheet/labworksheet8b.html