CSCI 110-Fall Semester 2024

In Class Lab 7

Assigned on:10/9/2024

Due Date:10/10/2024 till 5:00PM

Total points:35

This lab is based on the reading assignment. Write all the answers in .doc file and submit the doc file No screenshot of output is required. Each question worth 5 points.

1.Write a programming statement that prints outsideTemperature with 4 digits. End with newline. Sample output with input 103.45632:

103.5

#include <iostream>

#include <iomanip>

using namespace std;

int main(){

double temp;

cin >> temp;

temp = static\_cast<double>(temp);

cout << fixed << setprecision(1) << temp;

return 0;

}

2.Write a programming statement that prints outsideTemperature with 2 digits in the fraction (after the decimal point). End with a newline. Sample output with input 103.45632:

103.46

#include <iostream>

#include <iomanip>

using namespace std;

int main(){

double temp;

cin >> temp;

temp = static\_cast<double>(temp);

cout << fixed << setprecision(2) << temp;

return 0;

}

3.Write an if-else statement that prints "Goodbye" if userString is "Quit", else prints "Hello". End with newline.

#include <iostream>

#include <string>

using namespace std;

int main(){

string userInput;

cin >> userInput;

if (userInput == "Quit"{

cout << "Goodbye";

} else {

cout << "Hello!";

}

return 0;

}

4.Assign the size of userInput to stringSize. Ex: if userInput is "Hello", output is:

Size of userInput: 5

#include <iostream>

#include <string>

using namespace std;

int main(){

string userInput;

int stringSize;

cout << "Enter string:" << endl;

getline(cin, userInput);

cout << "Size of user userInput: " << userInput.size() << endl;

return 0;

}

5.Write an expression to detect that the first character of userInput matches firstLetter.

#include <iostream>

#include <string>

using namespace std;

int main() {

string userInput;

char firstLetter;

getline(cin, userInput);

cin >> firstLetter;

if (userInput.at(0) == firstLetter){

cout << "First letter matches";

} else {

cout << "First letter doesn't match";

}

6.Set hasDigit to true if the 3-character passCode contains a digit

#include <iostream>

#include <string>

#include <cctype>

using namespace std;

int main() {

bool hasDigit;

string passCode;

hasDigit = false;

cin >> passCode;

if (passCode.size() == 3){

for (int i = 0 ; i < passCode.size() ; i++){

if (isdigit(passCode.at(i))){

hasDigit = true;

break;

}

}

}

if (hasDigit) {

cout << "Has a digit." << endl;

}

else {

cout << "Has no digit." << endl;

}

return 0;

}

7.Replace any alphabetic character with '\_' in 2-character string passCode. Ex: If passCode is "9a", output is:

9\_

Hint: Use two if statements to check each of the two characters in the string, using isalpha().

#include <iostream>

#include <string>

#include <cctype>

using namespace std;

int main() {

string passCode;

cin >> passCode;

for (int i = 0 ; i < passCode.size() ; i++){

if (isalpha(passCode.at(i))){

passCode.at(i) = '\_';

}

}

cout << passCode << endl;

return 0;

}