**Take Home Program #6 – Due on or before Sunday 4/7, 2019 –**

**Objectives:** Game program

Your name:

|  |
| --- |
| **Important instructions:**   * *All programs must include comments at the top of your program: your name,* the class name (CSIT 575)*, program name and* ***the program description (purpose of the program).*** * *Copy and paste your* ***program code*** *and* ***output*** *in Part B of each program. Note: Use snipping tool to* ***snip the output****.* * *Once it is done, save and submit this word file via Canvas.* |

/\* Erik Gonzalez

CO SCI 575

game.cpp

A simple rock, paper, scissors game against a bot. \*/

#include <iostream>

#include <string>

#include <cstdlib>

#include <iomanip>

#include <ctime>

using namespace std;

int main()

{

unsigned int seed;

seed = time(0);

srand(seed);

int compNum = rand() % 3 + 1;

string name;

string choice;

int compChoice = compNum;

int playerWin = 0;

int compWin = 0;

//Input

cout << "My name is Gamebot, what is your name? ";

cin >> name;

cout << "\nChoose a hand to play:" << endl;

cout << " Type R for rock, P for paper, or S for Scissors." << endl;

cout << " When you want to stop, type E for End instead." << endl;

cout << " Your choice: ";

cin >> choice;

//Checks if the user wants to quit

if (choice == "E")

{

cout << "\nThank you for playing, " << name << ".";

cout << "\n You won " << playerWin << " hands.";

cout << "\n I won " << compWin << " hands.";

if (playerWin == compWin)

cout << "\nWe tied. There is no winner." << endl;

else if (playerWin > compWin)

cout << "\nYou won, you just got lucky kid.\n";

else if (playerWin < compWin)

cout << "\nI win! No one can beat me!\n";

system("pause");

return 0;

}

//If the choice isn't recognized it'll display this

if (choice != "R" && choice != "P" && choice != "S" && choice != "E")

cout << "Your input must be one of the characters(R, P, S or E)" << endl;

/\*

Case 1 = computer picked Rock

Case 2 = computer picked Paper

Case 3 = Computer picked Scissors

\*/

switch (compChoice)

{

//Rock

case 1:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

break;

//Paper

case 2:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

break;

//Scissors

case 3:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

break;

}

/\*The loop that'll keep the game going until the user stops it.

Rhe code is identical as above with some minor changes for the output format. \*/

while (choice != "E")

{

cout << "\n-------------------------------------------------" << endl;

cout << "\nChoose a hand to play:" << endl;

cout << " Type R for rock, P for paper, or S for Scissors." << endl;

cout << " When you want to stop, type E for End instead." << endl;

cout << " Your choice: ";

cin >> choice;

if (choice == "E")

{

cout << "\n-------------------------------------------------" << endl;

cout << "\nThank you for playing, " << name << ".";

cout << "\n You won " << playerWin << " hands.";

cout << "\n I won " << compWin << " hands.";

if (playerWin == compWin)

cout << "\nWe tied. There is no winner." << endl;

else if (playerWin > compWin)

cout << "\nYou won, you just got lucky kid.\n";

else if (playerWin < compWin)

cout << "\nI win! No one can beat me!\n";

system("pause");

return 0;

}

if (choice != "R" && choice != "P" && choice != "S" && choice != "E" && choice != "r" && choice != "p" && choice != "s" && choice != "e")

cout << "Your input must be one of the characters(R, P, S or E)" << endl;

switch (compChoice)

{

//Rock

case 1:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Rock." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

break;

//Paper

case 2:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Paper." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

break;

//Rock

case 3:

if (choice == "R")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "Darn you " << name << ", " << "You win.";

playerWin++;

}

if (choice == "P")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "I win! You're such a loser!" << endl;

compWin++;

}

if (choice == "S")

{

cout << "\nYou picked " << choice << ". " << "I picked Scissors." << endl;

cout << "Dang, we both picked " << choice << ". Let's go again!" << endl;

}

break;

}

}

system("pause");

return 0;

}

**OUTPUT 1:**

My name is Gamebot, what is your name? Erik

Choose a hand to play:

Type R for rock, P for paper, or S for Scissors.

When you want to stop, type E for End instead.

Your choice: R

You picked R. I picked Rock.

Dang, we both picked R. Let's go again!

-------------------------------------------------

Choose a hand to play:

Type R for rock, P for paper, or S for Scissors.

When you want to stop, type E for End instead.

Your choice: P

You picked P. I picked Rock.

Darn you Erik, You win.

-------------------------------------------------

Choose a hand to play:

Type R for rock, P for paper, or S for Scissors.

When you want to stop, type E for End instead.

Your choice: S

You picked S. I picked Rock.

I win! You're such a loser!

-------------------------------------------------

Choose a hand to play:

Type R for rock, P for paper, or S for Scissors.

When you want to stop, type E for End instead.

Your choice: E

-------------------------------------------------

Thank you for playing, Erik.

You won 1 hands.

I won 1 hands.

We tied. There is no winner.

Press any key to continue . . .

**OUTPUT 2:**   
**My name is Gamebot, what is your name? Erik**

**Choose a hand to play:**

**Type R for rock, P for paper, or S for Scissors.**

**When you want to stop, type E for End instead.**

**Your choice: G**

**Your input must be one of the characters(R, P, S or E)**

**-------------------------------------------------**

**Choose a hand to play:**

**Type R for rock, P for paper, or S for Scissors.**

**When you want to stop, type E for End instead.**

**Your choice: F**

**Your input must be one of the characters(R, P, S or E)**

**-------------------------------------------------**

**Choose a hand to play:**

**Type R for rock, P for paper, or S for Scissors.**

**When you want to stop, type E for End instead.**

**Your choice: R**

**You picked R. I picked Paper.**

**I win! You're such a loser!**

**-------------------------------------------------**

**Choose a hand to play:**

**Type R for rock, P for paper, or S for Scissors.**

**When you want to stop, type E for End instead.**

**Your choice: S**

**You picked S. I picked Paper.**

**Darn you Erik, You win.**

**-------------------------------------------------**

**Choose a hand to play:**

**Type R for rock, P for paper, or S for Scissors.**

**When you want to stop, type E for End instead.**

**Your choice: E**

**-------------------------------------------------**

**Thank you for playing, Erik.**

**You won 1 hands.**

**I won 1 hands.**

**We tied. There is no winner.**

**Press any key to continue . . .**