COP-1000C  
Assignment #6  
  
Part I: I have completed the practice exercises outlined in Part 1.

Part II: I have completed the problems outlined in Part 2.

Part III:

/\*\* While loops that do number things

\* This program runs loops to list all the numbers associated with those loops.

\* @author: sh0inx

\* @ver: 0.1

\* COP-1000C

\*/

#include <stdio.h>

#include <stdlib.h>

main() {

int selection;

printf("Hi there! Select a loop you'd like to run with 1, 2, 3, or 4.\n");

scanf\_s("%i", &selection);

while (selection < 1 || selection > 4) {

printf("Sorry, that's not a valid response. Please respond with 1, 2, 3, or 4.");

scanf\_s("%i", &selection);

}

//loop 1

if (selection == 1) {

int loopCounter = 0;

printf("You've selected loop 1.\n");

printf("This will show all multiples of 5 that are greater than 0 and less than 60.\n\n");

while (loopCounter >= 0 && loopCounter < 60) {

if (loopCounter % 5 == 0) {

printf("%i\n", loopCounter);

}

loopCounter++;

}

}

//loop 2

if (selection == 2) {

int loopCounter = 0;

printf("You've selected loop 2.\n");

printf("This will show all numbers that are divisible by 2 AND 7, and are less than 200.\n\n");

while (loopCounter >= 0 && loopCounter <= 200) {

if ((loopCounter % 2 == 0) && (loopCounter % 7 == 0)) {

printf("%i\n", loopCounter);

}

loopCounter++;

}

}

//loop 3

if (selection == 3) {

int loopCounter = 100;

int loopVar = 0;

printf("You've selected loop 3.\n");

printf("This will show the sum of all multiples of 8 between 100 and 500.\n\n");

while (loopCounter >= 100 && loopCounter <= 500) {

if (loopCounter % 8 == 0) {

loopVar += loopCounter;

}

loopCounter++;

}

printf("%i\n", loopVar);

}

//loop 4

if (selection == 4) {

int loopCounter = 20;

int loopVar = 0;

printf("You've selected loop 4.\n");

printf("This will show the sum of all odd numbers between 20 and 100.\n\n");

while (loopCounter >= 20 && loopCounter <= 200) {

if (loopCounter % 2 == 1) {

loopVar += loopCounter;

}

loopCounter++;

}

printf("%i\n", loopVar);

}

system("pause");

}

Loop 1

* Create a loop that will output all the multiples of 5 that are greater than zero and  
  less than 60 (do not include 60).  
  5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55

Text

Description automatically generated

Loop 2:

* Create a loop that will output all the numbers less than 200 that are evenly  
  divisible by both 2 and 7.  
  14 28 …

Text

Description automatically generated

Loop 3:

* Create a loop that will calculate the sum of the multiples of 8 that are between 100  
  and 500. Output the sum only.

Text

Description automatically generated

Loop 4:

* Create a loop that will output the sum of all odd numbers between 20 and 100.

Text

Description automatically generated