Module 2: Control Flow Assignments

Lesson 2.1: Conditional Statements

Assignment 1: Simple if Statement

Write a program that asks the user to input a number and prints whether the number is positive.

Assignment 2: if-else Statement

Write a program that asks the user to input a number and prints whether the number is positive or negative.

Assignment 3: if-elif-else Statement

Write a program that asks the user to input a number and prints whether the number is positive, negative, or zero.

Assignment 4: Nested if Statement

Write a program that asks the user to input a number and prints whether the number is positive and even, positive and odd, or negative.

Lesson 2.2: Loops

Assignment 5: for Loop

Write a program that prints all the numbers from 1 to 10 using a for loop.

Assignment 6: while Loop

Write a program that prints all the numbers from 1 to 10 using a while loop.

Assignment 7: Nested Loops

Write a program that prints a 5x5 grid of asterisks (*) using nested loops.

Assignment 8: break Statement

Write a program that asks the user to input numbers until they input 0. The program should print the sum of all the input numbers.

Assignment 9: continue Statement

Write a program that prints all the numbers from 1 to 10 except 5 using a for loop and continue statement.

Assignment 10: pass Statement

Write a program that defines an empty function using the pass statement.

Assignment 11: Combining Loops and Conditionals

Write a program that asks the user to input a number and prints all the even numbers from 1 to that number using a for loop.

Assignment 12: Factorial Calculation

Write a program that calculates the factorial of a number input by the user using a while loop.

Assignment 13: Sum of Digits

Write a program that calculates the sum of the digits of a number input by the user using a while loop.

Assignment 14: Prime Number Check

Write a program that checks if a number input by the user is a prime number using a for loop.

Assignment 15: Fibonacci Sequence

Write a program that prints the first n Fibonacci numbers, where n is input by the user.