Week 2 Learning Overview: Conditional Statements

Duration: 6 hours of lectures

Problems Solved: A total of 23 problems from Lab, Exercise, and More Exercise sections.

1. Conditional Statements:

- if: Used to test a specific condition and execute the subsequent code block if the condition evaluates to True.
- elif: An abbreviation for "else if", allows checking multiple expressions for True and executing a block of code as soon as one of the conditions evaluates to True.
- else: Captures any scenario that wasn't captured by the preceding if and elif conditions.

2. Formatting Strings:

- f-string: A modern way to embed expressions inside string literals, using {} and a prefix f.

3. Mathematical Functions:

- abs(): Returns the absolute value of a number.
- math.ceil(): Rounds a number UP to the nearest integer, if necessary.
- math.floor(): Rounds a number DOWN to the nearest integer, if necessary.

4. Using Debugger:

Explored the basics of debugging to identify, trace, and resolve errors or unexpected behaviours in the code.

5. Variable Scope:

Understood the life of a variable within a block of code. A variable's reach or availability in different parts of the code is determined by where it's declared.

6. Logical Operators:

Comparison operators allow the comparison of two values:

- ==: Equal to
- !=: Not equal to
- >: Greater than
- >=: Greater than or equal to
- <: Less than
- <=: Less than or equal to

The learning in week 2 has further deepened the understanding of Python programming, focusing on
conditional statements, formatting, mathematical operations, and variable scope.

The hands-on approach of solving 23 problems ensured the effective application of these concepts.