**Week 2 – Notes from the Lecture**

**What is an Operator, and What is an Operand?**

- Operator: An operator is a symbol that tells the interpreter to perform a specific mathematical, logical, or comparison operation. Examples include `+`, `-`, `\*`, `/`, `==`, etc.

- Examples:

- Arithmetic Operators: `+`, `-`, `\*`, `/`

- Comparison Operators: `==`, `!=`, `>`, `<`

- Logical Operators: `and`, `or`, `not`

- Operand: An operand is the value or variable that the operator acts upon. In an expression like `a + b`, `a` and `b` are the operands, and `+` is the operator.

- Example: In the expression `5 \* 3`, `5` and `3` are operands, and `\*` is the operator.

**Difference Between Camel Case and Snake Case**

- Camel Case:

- In Camel Case, each word within a variable name starts with a capital letter, except for the first word. There are no spaces or underscores between words.

- Example: `myVariableName`, `calculateTotalPrice`.

- Usage: Camel Case is commonly used in languages like JavaScript and Java for variable and function names.

- Snake Case:

- In Snake Case, words are all lowercase and are separated by underscores (`\_`). No capital letters are used.

- Example: `my\_variable\_name`, `calculate\_total\_price`.

- Usage: Snake Case is commonly used in Python for variable names and function names, following the PEP 8 style guide.

**Recommendation for Constants**

In Python and other programming languages, constants (values that should not change during program execution) are recommended to be written in all uppercase letters with words separated by underscores. This makes them easily distinguishable from variables that can change.

- Example:

- `PI = 3.14159`

- `MAX\_CONNECTIONS = 100`

Following this convention improves code readability and helps developers understand that these values are meant to remain constant throughout the program.