- Python is a high-level, interpreted programming language known for simplicity; it is popular in AI & Data Science due to rich libraries like NumPy, Pandas, TensorFlow, and easy syntax.
- List is ordered and mutable, Tuple is ordered and immutable, Set is unordered with unique elements, and Dictionary stores data as key-value pairs.
- Variables store data values, and data types define the type of data such as int, float, string, and boolean.
- = is an assignment operator, while == is a comparison operator used to check equality.
- if, elif, else are conditional statements used to execute code based on different conditions.
- A function is a reusable block of code used to improve modularity and reduce repetition.
- for loop is used when the number of iterations is known, while while loop is used when the condition is based on logic.
- A module is a file containing Python code; example: math module.
- Exception handling is used to handle runtime errors using try, except, and finally blocks.
- pip is Python's package manager used to install and manage external libraries.