Module 1: Introduction to PHP

1. What is PHP and why is it widely used for web development?

- **Answer**:
  PHP (Hypertext Preprocessor) is a popular server-side scripting language primarily used for creating dynamic and interactive web pages. It is widely used because of its ease of integration with HTML, fast execution, and ability to interact with databases. It powers many large platforms like WordPress, Facebook, and Wikipedia, and has a large community and extensive documentation.

Module 2: Variables, Data Types, and Operators

1. What are the basic data types in PHP?

- **Answer**:
  The basic data types in PHP include:
    - **String**: A sequence of characters, e.g., `"Hello, World!"`.
    - **Integer**: Whole numbers, e.g., `25`.
    - **Float (Double)**: Decimal numbers, e.g., `3.14`.
    - **Boolean**: Represents true or false values.
    - **Array**: A collection of values, e.g., `$fruits = array("Apple", "Banana", "Cherry");`.
    - **Object**: Instances of classes.
    - **Null**: Represents a variable with no value.

2. What are operators in PHP?

- **Answer**:
  Operators are symbols used to perform operations on variables and values. They include:
    - **Arithmetic Operators**: `+`, `-`, `*`, `/`, `%` (for addition, subtraction, multiplication, division, and modulus).
    - **Comparison Operators**: `==`, `!=`, `>`, `<`, `>=`, `<=` (for comparing values).
    - **Logical Operators**: `&&`, `||`, `!` (for logical AND, OR, and NOT operations).
    - **Assignment Operators**: `=`, `+=`, `-=`, `*=`, `/=`, `%=` (for assigning values).

Module 3: Control Structures

1. How does the `if` statement work in PHP?

- **Answer**:
    The `if` statement checks whether a condition is true. If the condition is true, the code inside the block executes. If the condition is false, it is skipped. Example: