**Module 1: Introduction to Python and Basic Programming Concepts**

Session 1: Introduction to Python

- Overview of Python programming language

- Installing Python and setting up the development environment

- Introduction to Python interpreter and IDLE

- Writing and executing your first Python program

- Understanding Python's philosophy: readability and simplicity

**Course Focus**

1. Algorithms: The Building Blocks of Problem Solving
2. Learning Problem-Solving Techniques
3. Understanding the Power of Data Structures

**Why This Course Focuses on Algorithms, Problem-solving, and Data Structures:**

1. Algorithms: The Building Blocks of Problem Solving
   * Algorithms serve as the foundational building blocks for problem-solving in computer science.
   * Understanding algorithms enables software engineers to develop efficient solutions to a wide range of problems.
   * Mastery of algorithms empowers individuals to tackle complex challenges and optimize performance in software development projects.
2. **Learning Problem-Solving Techniques**
   * Problem-solving skills are essential for software engineers to analyze problems, identify patterns, and devise effective solutions.
   * By mastering problem-solving techniques, participants can approach problems systematically, break them down into manageable components, and develop robust solutions.
   * Effective problem-solving skills enhance productivity, creativity, and adaptability, making individuals valuable assets in the tech industry.
3. **Understanding the Power of Data Structures**
   * Data structures play a crucial role in organizing and managing data efficiently in computer programs.
   * Understanding data structures enables software engineers to choose the right tools for storing, accessing, and manipulating data effectively.
   * Mastery of data structures enhances the scalability, performance, and maintainability of software applications, leading to better user experiences and optimized resource utilization.