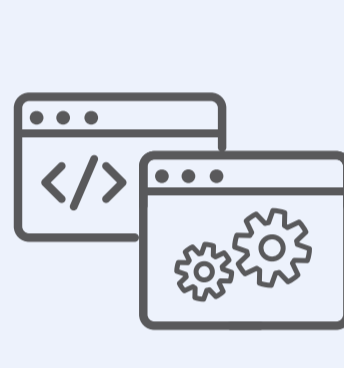
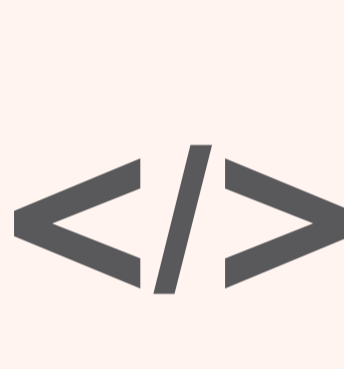






Online Essential Foundation Course Calendar

Month 01

Week	Topics	Sub-topics
01		Understanding Developer Terminologies
Session-01 to Session-05	 Software Developer Beginner	From Build To Release Understanding Development & Production Installation and Maintenance Glitches & System Crashes
Session-01 to Session-05	 Art of Coding	Introduction to Art of Coding Square Patterns with Simplified Approaches Rectangle Patterns with Smart Logic Parallelogram Patterns using Loops Triangle Patterns with Formula-Driven Coding
Session-01 to Session-05	 Java	Introduction to Java Java's Pioneering Role in Software Development Java Powered by its Architecture & JVM Mastering Java's Code Execution Process Explore Assembler, Compiler, & Interpreter
Session-01 to Session-05	 English Grammar Beginner	Noun & its Types Common Noun Vs Proper Nouns Concrete Noun Vs Abstract Noun Countable Noun Vs Uncountable Nouns Compound Nouns

Week	Topics	Sub-topics
02		Tech Foundations: Hardware & Software
Session-06 to Session-10	 Software Developer Beginner	Application Software in Modern Development Software Verification & Validation Exploration Quality Control & Assurance Overview Test-Driven & Data-Driven Approaches
Session-06 to Session-10	 Art of Coding	Program Rectangle Pattern with Precision Parallelogram Pattern Logical Analysis Implement Parallelogram Pattern Simplify Right-Angled Triangle Logic Proficiency Ignite Right-Angled Triangle Coding
Session-06 to Session-10	 Java	Java Portability & Cross-Platform Execution Unfold Java Versions & Feature Growth Java Essentials for Career Growth Understand public static & .class File Generation String args[] & Command Line Input Mastery
Session-06 to Session-10	 English Grammar Beginner	Collective Noun Pronoun - Introduction Subject Pronoun Object Pronoun Possessive Pronoun

Week	Topics	Sub-topics
03		Software Development Foundations
Session-11 to Session-15	 Software Developer Beginner	Scalability, Stubs, and Drivers Roles of Product & Scrum Masters Software Development Methodologies Comparison Programming Pitfalls: Bugs & Errors
Session-11 to Session-15	 Art of Coding	Logic of Triangle for Solid & Hollow Patterns Right-Angled Triangle Patterns Effortlessly Right-Angled Triangle Logic Precision Efficient Right-Angled Triangle Coding Right-Angled Triangle Logic Exploration
Session-11 to Session-15	 Java	Deep Dive into main() and String args[] Java I/O Insights & Coding Standards Object Creation & OOP Principles in Java OOP Thumb Rules & Java Classes OOP Principles with Real-World Applications
Session-11 to Session-15	 English Grammar Beginner	Reflexive Pronoun Interrogative Pronoun Indefinite Pronoun Reciprocal Pronoun Demonstrative Pronoun

Week	Topics	Sub-topics
04		Navigating Bugs & Defects
Session-16 to Session-20	 Software Developer Beginner	Vulnerabilities & Malicious Threats Project Plans: CRS & SRS Functional Vs Non-Functional Requirements Use Cases & Product Backlog
Session-16 to Session-20	 Art of Coding	Robust Right-Angled Triangle Programs Decode Isosceles Triangle Orientation-1 Isosceles Triangle Orientation-1 Pattern Coding Isosceles Triangle Orientation-2 Logic Exploration Implement Seamless Isosceles Orientation-2
Session-16 to Session-20	 Java	Program the Guesser Game in Java Java Guesser Game with multiple Objects Master OOP Conventions Program Troubleshooting & Input Validation Handling Errors & Player Attempts
Session-16 to Session-20	 English Grammar Beginner	Verb & its Types Action Verb Vs Stative Verbs Main Verbs Vs Auxiliary Verbs Transitive Verbs Vs Intransitive Verbs Finite Verbs Vs Non-Finite Verbs

Week	Topics	Sub-topics
05		Software Feasibility & Risk Management
Session-21 to Session-25	 Software Developer Beginner	Explicating Risk Monitoring Plans
		Prototype Design & Functionality
		Mockups & Wireframes in Development
		System Design Practices
Session-21 to Session-25	 Art of Coding	Isosceles Triangle Orientation-3 Logic Agility
		Isosceles Triangle Orientation-3 Program
		Isosceles Triangle Orientation-4 Logic Insights
		Isosceles Triangle Orientation-4 into Coding
		Breakthrough Rhombus Logic Analysis
Session-21 to Session-25	 Java	Java In-Built Classes & Code Documentation
		Java Data Types
		Memory Efficiency with Java Data Types
		Overflow, Underflow, & Data Types Ranging
		Byte & short Integer Data Types
Session-21 to Session-25	 English Grammar Beginner	Regular Vs Irregular Verbs
		Adverb
		Adverb - Types
		Adjectives & its type
		etailed - Types of Adjectives [2A]





Week	Topics	Sub-topics
06		Code Implementation & Development
Session-26 to Session-30	 Software Developer Beginner	Stakeholder Roles in Development
		Project Vs Product Management
		Domain Experts, Architects & Designers
		Coder & Tester Responsibilities
Session-26 to Session-30	 Art of Coding	Master Rhombus Pattern Coding
		Exploring Hourglass Pattern
		Program the Hourglass Structures
		Understand Universal Pattern-1 Logic
		Universal Pattern-1 Coding Solution
Session-26 to Session-30	 Java	Exploring byte, short, int, & long Data Types
		IEEE Standards of float & double Data Types
		Understanding double Data Type
		Precision with float, double & BigDecimal Class
		Overflow & Underflow with Real Numbers
Session-26 to Session-30	 English Grammar Beginner	Detailed - Types of Adjectives [2B]
		Degree of Adjectives
		Preposition & its type
		Types of Prepositions - Based on Functionality
		Types of Prepositions - Based on Structure

Week	Topics	Sub-topics
07		Scrum Master & End Users
Session-31 to Session-35	 Software Developer Beginner	Intro to Software Development Cycle
		Software Projects via SDLC Models
		Waterfall Model in Software Development
		Prototype Model in Software Development
Session-31 to Session-35	 Art of Coding	Universal Pattern-2 Logic Insights
		Design Universal Pattern-2 Program
		Understanding Conclusion Table Logic
		Alphabet "A" Logic Exploration
		Craft Alphabet "A" Pattern coding
Session-31 to Session-35	 Java	Analyzing Characters, Binary Code, & ASCII Standards
		Java's Encoding Format & UTF-16
		Exploring char & boolean Data Types
		Delve into Literals & Special Symbols
		Java Type Casting Approaches
Session-31 to Session-35	 English Grammar Beginner	Conjunction & its type
		Detailed - Types of Conjunctions
		Interjections
		Definite Articles
		Indefinite Articles





Week	Topics	Sub-topics
08		V Model Methodologies
Session-36 to Session-40	 Software Developer Beginner	Spiral Model Benefits
		Agile Methodology in Software Development
		Development Models Key Attributes
		Frontiers of Software Development
Session-36 to Session-40	 Art of Coding	Universal Pattern-2 Logic Insights
		Design Universal Pattern-2 Program
		Understanding Conclusion Table Logic
		Alphabet "A" Logic Exploration
		Craft Alphabet "A" Pattern coding
Session-36 to Session-40	 Java	Truncation Techniques & "var" Keyword
		Java Wrapper Classes & OOP
		Object Creation & Memory Allocation in Java
		Variable Types & Object Creation
		Optimizing Method Types & Heap Management
Session-36 to Session-40	 English Grammar Beginner	Conjunction & its type
		Detailed - Types of Conjunctions
		Interjections
		Definite Articles
		Indefinite Articles


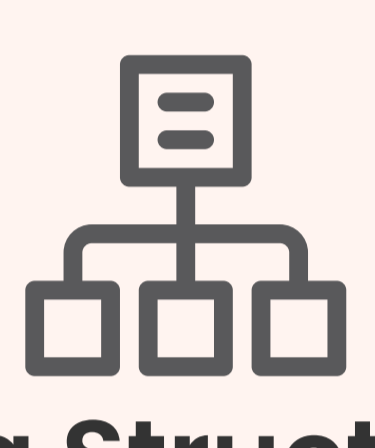

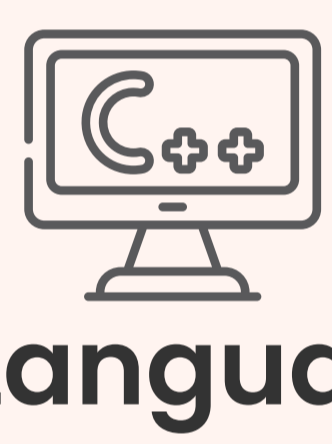
Week	Topics	Sub-topics
09		Design Alphabet "D" Programs
Session-41 to Session-45	 Art of Coding	Master Alphabet "G" Logic Pattern
		Build Alphabet "G" Programming Solution
		Evolve Alphabet "K" Logic Structures
		Programming Alphabet "K" Pattern
Session-01 to Session-05	 HR Interview Prep	Tell Me About Yourself
		Why Did You Choose This Profession?
		What Are The Challenges You Faced Student?
		What Do You Know About The Company?
		Why Are You The Best Fit For This Job?
Session-41 to Session-45	 Java	Method Variants & Parameter Handling
		Understanding Method Overloading
		Benefits of Polymorphism
		Overloading Conflicts & main() Ambiguity
		Initializing Array
Session-41 to Session-45	 English Grammar Beginner	Subject-verb Agreement Introduction
		Subject-verb Agreement Rule 1
		Subject-verb Agreement Rule 2
		Subject-verb Agreement Rule 3
		Subject-verb Agreement Rule 4


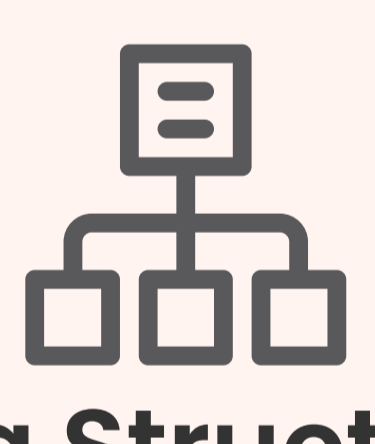


Week	Topics	Sub-topics
10		Discover Alphabet M Logic Explanation
Session-46 to Session-50	 Art of Coding	Master Alphabet M Coding
		Solid Square Number Pattern Logic Exploration
		Unlock Complex Solid Square Code Solution
		Solid Square Number Pattern Logical Insights
Session-06 to Session-10	 HR Interview Prep	Why Should We Hire You With No Experience?
		What Interests You About Software Development?
		What Are Your Strengths?
		What Are Your Weaknesses?
		How Do You Handle Pressure And Prioritize Tasks?
Session-46 to Session-50	 Java	Looping Control Constructs
		Array Manipulation with Looping
		Odd-Even Array Indexing & Frequency Analysis
		Frequency Handling & Code Optimization
		Array Traversal, Memory Usage & Time Complexity
Session-46 to Session-50	 English Grammar Beginner	Subject-verb Agreement Rule 10
		Introduction to Phrases & its type
		Noun Phrase
		Verb Phrase
		Adjective Phrase


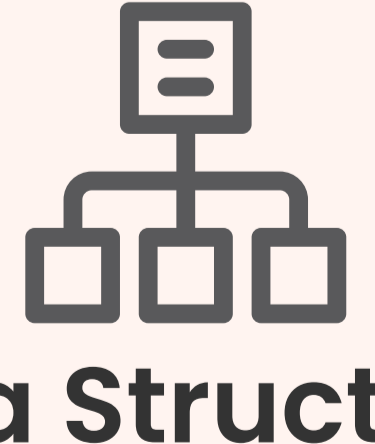


Week	Topics	Sub-topics
11		Develop Advanced Solid Square Number Pattern
Session-51 to Session-55	 Art of Coding	Numerical Square Pattern Logic Dynamics
		Crafting Numerical Square Pattern Program
		Solid Square Number Pattern Logical Insights
		Designing Solid Square Patterns
Session-11 to Session-15	 HR Interview Prep	How do You Handle Feedback & Criticism?
		Share a successful team project you are part of.
		How do you Handle Disagreements within a Team?
		What are your Short-Term Goals?
		What are your Long-Term Goals?
Session-51 to Session-55	 Java	Array Duplicates & XOR operation with Complexity
		Identifying Leader Element in an Array
		User Input Handling & Inbuilt Classes in Array
		Understand In-Built Array Methods
		Optimizing Arrays with Object References
Session-01 to Session-05	 C Language	Mastering C in the 21st Century
		Code Your First C Program
		Coding "C" with Dynamic Inputs
		C Code Performance through User-Driven Inputs
		Efficient coding techniques to optimize C program


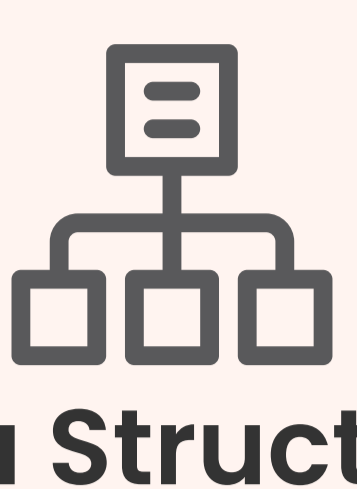

Week	Topics	Sub-topics
12		Right-Angled Number Triangle Pattern Logic
Session-56 to Session-60	 Art of Coding	Right-Angled Triangle Pattern Coding
		Floyd's Triangle Logical Insights
		Code Advanced Floyd's Triangle
		Advance Right-Angled Triangle
Session-16 to Session-20	 HR Interview Prep	What Are Your Salary Expectations?
		Are you Willing to Relocate?
		Are you Willing to Sign a Bond?
		Are you Willing to Work in Shifts?
		Are you Open to Work in a Hybrid Model?
Session-56 to Session-60	 Java	Array Dimensionalities & various Search Techniques
		Constructing 2D Arrays in Java
		Implementation of 2D Array Operations
		Matrix Addition, Subtraction, and Transposition
		Implementation of Diagonal Triangle Matrices
Session-06 to Session-10	 C Language	Explore Symbols & Tokens in C
		Understanding Character Set & Functions in 'C'
		C Tokens: Structure & Usage
		Master Identifier Rules in C
		Deep Dive into C Constants


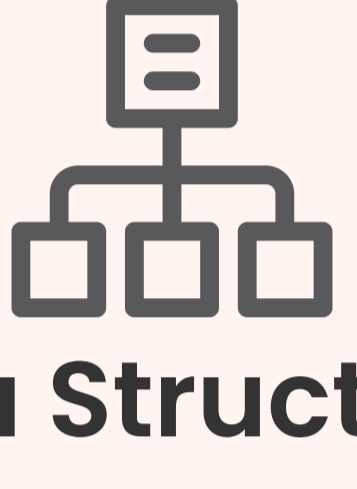


Week	Topics	Sub-topics
13		Introduction to Python
Session-01 to Session-05	 Python Programs	Python Core Concepts Identifiers & Keywords Python Literals, Types, and Their Uses Python Delimiters & Comments Exploring Python Operators
Session-21 to Session-25	 HR Interview Prep	Share something not mentioned in your resume. What is your approach to problem-solving? What are your hobbies? How do you stay updated on tech trends? Do you have any questions for me?
Session-61 to Session-65	 Java	Array-based Identity Matrix 2D Array of Arrays & Jagged Arrays Jagged Array Creation & Operations 3D Arrays & Memory Allocation Enhancing & Optimizing Jagged Arrays
Session-11 to Session-15	 C Language	Character and String Constants in C Special Symbols & Arithmetic operations in C Datatypes Modifiers & Qualifiers in C Comprehensive Analysis of C Operators Fundamental Operators in C


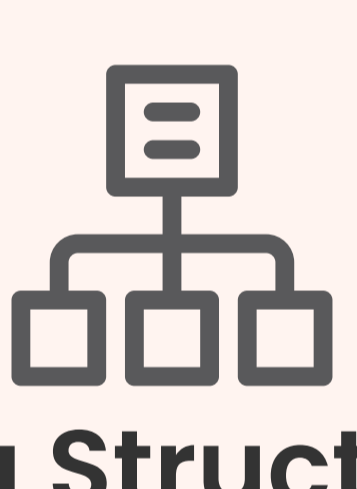


Week	Topics	Sub-topics
14		Arithmetic & Assignment Operators
Session-06 to Session-10	 Python Programs	Comparison & Logic Operators in C Optimizing Code with Bitwise & Membership Operators Python I/O Essentials Programming with Console I/O Expertise
Session-01 to Session-05	 Data Structures	Pointer Fundamentals Navigating Function Pointers Pointer Techniques Exploring Pointer Functionality Pointer Approach for Data Swapping
Session-66 to Session-70	 Java	Object Storage & Array Initialization Array Traversal using for-each Loop Understanding Arrays: Complexity & Exceptions Strings & String Constant Pool in Java String Object Creation Techniques
Session-16 to Session-20	 C Language	Type Casting & Operator Precedence in C Input Functions & Precedence Techniques Exploring Unformatted I/O Operations Conditional Control Constructs in C Understanding Control Flow with Branching & Looping




Week	Topics	Sub-topics
15		Streamline Coding with Print & Output
Session-11 to Session-15	 Python Programs	Coding with % Formatting Python's str.format() & Positional Arguments Coding with Indexed & Keyword Arguments Python Performance with Arguments
Session-06 to Session-10	 Data Structures	Understanding Data Structures Exploring LIFO or FILO in Stack Exploring Stack Memory Techniques Stack using Global & Local Variables Designing Queue Data Structure
Session-71 to Session-75	 Java	String Operations & Comparison Approaches String Lexicographic Comparison String Comparison & Length Computation Exploring String Concatenation Distinguishing concat() and + Operator
Session-21 to Session-25	 C Language	Coding Number Problems in C Quadratic Equations & Binary Conversions in C Zero-based Indexing in Arrays 2-D Arrays and Search Algorithms in C Sorting Techniques & Numeric Analysis in C

Week	Topics	Sub-topics
16		Proficiency through Format Specifiers
Session-16 to Session-20	 Python Programs	Formatting Precision with F-Strings Python Escape Sequences for Seamless Coding Python Control Flow for Efficient Coding Conditional Statements for Advanced Coding
Session-11 to Session-15	 Data Structures	Implement Queue Data Structure Queue Creation with Global Variables Insights into Infix, Prefix, and Postfix Expressions Evaluation of Complex Level Prefix Expressions Rules to Convert Infix to Prefix Expression
Session-76 to Session-80	 Java	String Interning & Formatting Target Conversion & Format Specifier in java String Manipulation Techniques Substring Lengths with Built-in Methods Unveil indexOf() in Java Strings
Session-26 to Session-30	 C Language	Horner's Method for Polynomials Array Manipulations & Matrix Operations in C introduction to Strings in C C Functions & Implementation Navigating C Function Prototypes & Categories

Week	Topics	Sub-topics
17		Coding with Nested IF-ELSE & Match-Case
Session-21 to Session-25	 Python Programs	Looping Constructs for Complex Coding Enhance Looping Iteration with range() Comparing Normal Loops Vs Nested Loops Python's Break, Continue, and Pass for Flow Control
Session-16 to Session-20	 Data Structures	Conversion of Infix Expression to Postfix Form Insights into Prefix to Postfix Conversion Steps Applications of Stack Data Structure Advanced Techniques to Reverse a Sentence Techniques for Complex Parenthesis Validation
Session-81 to Session-85	 Java	lastIndexOf() () in Java Strings Java Strings Case Conversion Uppercase to Lowercase Conversion Code String Case Manipulation Techniques Substring Extraction Techniques
Session-31 to Session-35	 C Language	Recursion, Iteration & Variable Scope in C Understanding Memory Access & Addressing Exploring Pointer Parameter Passing Arrays Vs Pointers in C Pointer Variables & Their Complexities

Week	Topics	Sub-topics
18		Loops & Mathematical Programming in Python
Session-26 to Session-30	 Python Programs	Introduction to Data Types in Python Python Integers and Base Conversion Logic Benefits of Float Data Type Exploring Complex, Boolean, & None Data types
Session-21 to Session-25	 Data Structures	Applications of Stack & Queue Data Structures Searching & Reversing Queue Element Introduction to Linked List Data Structure Constructing Efficient Singly Linked List (SLL) Enhancing SLL with insert_rear() & delete_front()
Session-86 to Session-90	 Java	trim() Vs strip() and String Functionality String Copying and Reversal methodologies String Copying and Reversal Techniques Sentence Manipulation and Formatting Advanced String Reversal Techniques
Session-36 to Session-40	 C Language	Memory Allocation in C Static and Dynamic Memory Allocation Exploring malloc(), calloc(), realloc() & free() Comprehensive Guide to C Structures Structure Pointers & Parameter Passing Techniques

Week	Topics	Sub-topics
19		Python Data Handling with Bytes & Bytearray
Session-31 to Session-35	 Python Programs	Introduction to Strings in Python String Indexing, Slicing & In-Built Methods in Python Understanding Python Type Conversions Explicate Python Modules
Session-26 to Session-30	 Data Structures	Implementation & Execution of SLL Exploring Doubly Linked List (DLL) Functions of DLL Introduction to Circular Linked List (CLL) Stack & Queue using Linked List
Session-91 to Session-95	 Java	String Palindrome Counting Vowels Consonants & Special Characters Decode Anagrams & Pangrams in Java Coding Pangram Check Optimized Approach to print Pangrams
Session-41 to Session-45	 C Language	Harness Array of Structures & typedef struct in C Nested Structures & Unions C Preprocessor Directives File Handling Techniques in C Text Files and Character Handling

Week	Topics	Sub-topics
20		Python's Random Module for Machine Learning
Session-36 to Session-40	 Python Programs	Time Module for Accurate Data Logging Datetime Module for Comprehensive Date Handling Impact of the Datetime Module on Data Analysis Python Math Module for Complex Calculations
Session-01 to Session-05	 Algorithms	Deep Dive Into Bubble Sort Sort Efficiently With Loops Structured Programming With Bubble Sort Ace Bubble Sort In Programming Unlock Selection Sort Mastery
Session-96 to Session-100	 Java	Code for Unique & Repeating Characters String Rotation & Understand Mutable Strings Exploring String Methods: concat(), append(), insert() String Buffer Vs String Builder Insights Synchronized vs Non-Synchronized String Methods
Session-46 to Session-50	 C Language	Formatted Text Files & their Uses File I/O Operations in C File Access Modes in C File Duplication Techniques & their Perks in C Insights into C Programming Essentials

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