



GeeksforGeeks

BI-WIZARD

2.0 Syllabus



Detailed
Course Syllabus

NUMBER SYSTEM

- Computational Thinking & Number Theory
 - Binary Number System (Base-2)
 - Octal Number System (Base-8)
 - Decimal Number System (Base-10)
 - Hexadecimal Number System (Base-16)
- Algorithms & Flow Charts
- Variables & Constants
- Operators
 - Arithmetic Operations
 - Assignment Operators
 - Comparison Operators
 - Logical Operators
 - Identity Operators
 - Membership Operators
 - Bitwise Operators
- Conditional Statements
 - Application of if else, if else if ladder
 - Switch-case (default, break).
 - Conditional/ternary operator (?:)
- Iteration Statements
 - Loops (for,while,do while)
 - Nested loops
 - Break and continue
- Problems Using Control Statements & Iteration Statements
- Functions & Modules
- Strings
- Recursion
- Linear Data Structures (Arrays,Linked Lists,Stacks,Queues)
 - Searching
 - Sorting
 - . Bubble sort
 - . Insertion sort
 - . Merge sort
 - . Selection sort
 - . Quick sort
 - . Heap sort

- **Trees**
 - Binary Tree
 - Tree Traversal
 - . Inorder Traversal
 - . Preorder Traversal
 - . Post Order Traversal
 - Binary Search Tree
 - . Insertion
 - . Deletion
 - . Traversal
- **Basic Graph Algorithms**
- **Dynamic Programming**
- **Greedy Algorithms**