



KIDS & TEENS FREELANCING TRAINING INSTITUTE

C Programming Course Outline

Module 1: What is C Programming?

- What is C and why is it important?
 - Simple explanation: the building blocks of many modern programs
 - Real-life example: C is like LEGO bricks used to build big systems
 - Why C is powerful: fast, light, and close to how computers "think"
 - Where C is used: video games, robots, phones, operating systems
 - Fun comparison: C vs. Scratch (like real tools vs. toy tools)
 - Activity: Write your first C program – Hello, World!
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Module 2: Variables – Storing Information

- What are variables? (Tiny storage boxes with names)
 - Real-life example: labeling your school supplies
 - Data types in C: int, float, char (numbers, decimals, letters)
 - How to create and use variables in C
 - Activity: Create a mini calculator using variables
 - Visual activity: draw a box for each variable in memory
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Module 3: Input & Output – Talking to the Computer

- What is input and output in C?
 - Real-life example: asking a question and getting an answer
 - Using `scanf()` to take user input
 - Using `printf()` to display results
 - Activity: create a program that asks for your name and age
 - Fun twist: build a mini quiz using input/output
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Module 4: Decisions with If-Else – Making Choices

- What is an if-else statement?
 - Real-life example: If it rains, use an umbrella; else, wear sunglasses!
 - Why computers need logic to make decisions
 - Comparison operators: >, <, ==, !=
 - Activity: create a program that gives a grade based on a score
 - Visual activity: draw a decision tree for a simple situation
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Module 5: Loops – Repeating Like a Robot

- What are loops and why they're helpful
 - Real-life example: brushing your teeth every morning
 - for, while, and do while loops explained simply
 - How loops save time and reduce repetition
 - Activity: print your name 10 times using a loop
 - Challenge: build a countdown timer using a loop
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Module 6: Arrays – A Group of Variables

- What is an array?
 - Real-life example: a row of mailboxes, each with a number
 - How arrays help store and organize multiple values
 - Accessing elements using indexes
 - Activity: store and print 5 favorite numbers
 - Fun task: find the biggest number in an array
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Module 7: Functions – Breaking Code into Pieces

- What is a function and why use them?
 - Real-life example: following a recipe in a cookbook
 - How to write and call functions in C
 - Activity: create a function that multiplies two numbers
 - Bonus: learn about `main()` – the boss function!
 - Why functions help build bigger programs easily
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Module 8: C in Real Life & Your Coding Journey

- Where is C used in real life: video games, space tech, robots
 - Real-life example: C is like a language robots and machines understand best
 - What's next after learning C? (C++, embedded systems, game development)
 - Activity: design your dream project using C
 - Fun drawing: build a robot and imagine how C would control it
 - Why learning C makes you a stronger programmer
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Bonus Materials:

- Interactive coding quizzes and logic games
- Beginner-friendly tools: Replit, OnlineGDB, CodeBlocks
- Printable C syntax and commands sheet
- Team project: Build a “Guess the Number” game in C
- Official Certificate of Completion