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C++ Bootcamp for Beginners

Description:

Ultimate modern C++ Bootcamp. A modern approach to understand C++. By mastering the fundamentals of the language, you can start writing C++ programmes right away. Additionally, you will hear several methods and viewpoints on using C++ professionally.

Start Date:

Doubt Clear Time:

Course Time:

Features:

Course material

Course resources

On demand recorded videos

Practical exercises

- # Quizzes
- # Assignments
- # Course completion certificate

What we learn:

- # Introduction to CPP
- # Getting Started with CPP
- # Basics but indepth of CPP
- # Functions in CPP
- # Object Oriented Programming
- # Smart Pointers in CPP

Requirements:

- # System with Internet Connection
- # Interest to learn
- # Dedication

Instructor:

Name:

Hitesh Choudhary

Description:

I like to make videos related to code and tech in my free time. I also lead a few tech teams in startups, help in hiring talent for companies. I am also on a part time traveller, with 31 countries checked off so far!

>Introduction to CPP:

- >>CPP20 A note
- >>CPP20 section1
- >>Welcome to Cpp bootcamp
- >>Prerequisite and tools for cpp
- >>Understand the entry point of hello world
- >>Compare the 2 hello world
- >>Version history and official documentation of cpp

>Getting Started with CPP:

- >>CPP20 section2
- >>Return type and comments
- >>Redefining program in cpp
- >>What is namespace in cpp
- >>First iteration of program
- >>Can I name that
- >>Get the color and assignment

>A Little fast pace CPP:

- >>CPP20 section3
- >>Your first introduction to pointers
- >>Reference is the actual tough thing in cpp
- >>Cpp array are different with pointers
- >>A formal introduction to integers
- >>Conditionals and ternary

- >>Conditionals as switch
- >>While and do while loops
- >>Introduction to for and range based for loops
- >>Loop with pointers and shortcuts

>Basics but indepth of CPP:

- >>CPP20 section4
- >>Always use float with caution
- >>Why always divide by zero for try catch block
- >>Sneek peek to functions in cpp
- >>linkers qualifiers prefix and postfix
- >>Basics of operations on cpp
- >>Logical AND OR and NOT
- >>bitwise operation in cpp
- >>Memory leaks in cpp

>More datatypes in CPP:

- >>CPP20 section5
- >>Get started with structs in cpp
- >>Enums and Preprocessors
- >>A challenge to strongly types language
- >>Heap and Stack memory with a version discussion

>Functions in CPP:

- >>CPP20 section6
- >>Detailed introduction to functions
- >>How to create a header file in cpp
- >>Your first introduction to templates
- >>What are functional pointers
- >>nullptr saves the day
- >>Factorial and recursion are close friend
- >>Lets talk about MACROS
- >>Variadic templates and recursion

>Object Oriented Programming:

- >>CPP20 section7
- >>A design example
- >>Get started with class and objects
- >>Getters and Setters for a data member
- >>Method separation and const qualified methods
- >>Constructor destructor and rule of 3
- >>Disable the constructor
- >>THIS is not easy in cpp

>Little more OOPS:

- >>CPP20 section8
- >>Inheritance is my favourite
- >>Base class Derived class and overriding

- >>Friend keyword come with caution
- >>Multiple Inheritance
- >>polymorphism and virtual

>Smart Pointers in CPP:

- >>CPP20 section9
- >>What are smart pointers
- >>Unique pointers and issues
- >>Shared pointers in smart pointers
- >>Weak pointers in smart pointers

>Move Semantics file & lambda:

- >>CPP20 section10
- >>Move semantics Lvalue and Rvalue
- >>Vectors Dynamic array from STD template library
- >>Lambda a small hello
- >>Create, rename and delete files
- >>Reading and writing into files and MODES

>STL - Standard Template

Library:

- >>CPP20 section11
- >>Introduction to STL and generic programming
- >>Main components in STL

- >>Functors in STL
- >>SORT algorithms in STL
- >>SEARCH algorithms in STL
- >>Partition and Stable partition in STL

>STL - a little more:

- >>CPP20 section12
- >>Revisiting vectors in STL
- >>List in STL
- >>Queue and priority queue in STL
- >>Deque in STL
- >>Stack in STL and assignment
- >>Sets and MultiSets in STL
- >>MAPS and assignment