Content 1 : Introduction to C++ and 1st program.

1. **Why learn C++ despite it being an ancient programming language?**
2. 1st Program.

Content 2 : Basic Structure Of C++

Basic Structure of C++ Program.

Content 3 : Variables & Comments in C++

1. Variables Detailed Explaination.
2. Comments Detailed Explaination.
3. **Code** For explaining both comments and Variables.

Content 4 : Variable Scope & Data Types in C++

1. Detailed explaination about the data types.
2. Explaination of all type of data types.
3. Variables scope detailed explaination.
4. Global and Local variable explaination in detailed.
5. Code for explaining the data types and Varaible scope.
6. Code for explaining the global and local variables.

Content 5 : C++ Basic Input/Output & More

1. Basic Input and output in C++.
2. Inputstream and outputstream.
3. Code for input and output stream.
4. Impprtant points about input/output stream.
5. Reserved Key words.

### Content 6 : C++ Header files & Operators

1. Explaination about the header files.
2. Detailed information about the types of header files.
3. Explaination of operators.
4. Types of operator with Code.

Content 7 : C++ Reference Variables & Typcasting

1. Built in data types.
2. Explaination of Reference Variables with code.
3. Explaination of Typecasting with code.

Content 8 : Constants, Manipulators And Operator Precedence

1. Constants in C++ with code.
2. Manipulators (like endl, setw) with code.
3. Operator Precidence and Associativity.

Content 9 : For, While and do-while loops in C++

1. Loops in C++.
2. Types of Loops.
3. Code for all Types of loops,

Content 10 : Break and Continue Statements in C++

1. Break statement with code.
2. Continue statement with code.

Content 11 : Pointers in C++

1. Pointer and its code.
2. Pointer to pointer and code.
3. Difference is also present.

Content 12 : Arrays and pointer arithmetics in C++.

1. Arrays with code.
2. Pointers and Arrays.
3. Code for explaining pointer and arrays.

Content 13 : Structures, Unions & Enums in C++

1. Structure with code.
2. Union with code.
3. Enum with code.
4. Difference is also present.

Content 14 : Function and function Prototypes C++

1. Function in c++ with code.
2. Function prototype(Actual and Formal Parameter) With code.

Content 15 : Inline Functions, Default Arguments & Constant Arguments in C++

1. Inline function with code.
2. Default and Constant Arguments with code.

Content 16 : Recursion and Recursive Function

1. Recursion with two Codes.

Content 17 : Function Overloading

1. Function overloading with Code and full detailes explaination.

Content 18 : Object-Oriented-Programming In C++

1. Introduction to Object oriented programming.
2. Difference Between Object Oriented Programming and Procedure Oriented programming.
3. Basic Concept about OOPs.
4. Benefits of Using OOPs.

### Content 19 : Classes, Public and Private access modifiers in C++

1. Why use class instead of structure.
2. Class in detailed description with code.
3. Public And Private access modifiers with code.
4. There are two programms for exlaination.

### Content 20 : OOPs Recap & Nesting of Member Functions in C++

1. Object oriented programming recap.
2. Nesting of member Function with code.

Content 21 : C++ Objects Memory Allocation & using Arrays in Classes

1. Object memory allocation in C++.
2. Arrays in classes with code.

Content 22 : Static Data Members & Methods in C++ OOPS

1. Static data members in C++.
2. Static methods in C++.
3. Code For Explaining the all above.

Content 23 : Array of Objects & Passing Objects as Function Arguments in C++

1. An arrays of objects in C++ with Code.
2. Passing arguments as an member function(there are two codes merge in one but one of them is commentout).

Content 24 : Friend Function in C++

1. Explaination about friend function.
2. Properties of Friend function.
3. Code for explaination.

Content 25 : Friend Classes and Member Friend Function in C++

1. Member friend function with code.
2. Friend class with code.

Content 26 : More About Friend Function C++

1. Two program for explaining the friend function.

Content 27 : Constructors In C++

1. Constructors and code for explaination.
2. Properties of Constructors.

Content 28 : Parameterized Constructors In C++

1. Program, parameterized constructor for storing values.
2. Program, parameterized constructor for calculating the distance.

Content 29 : Constructor Overloading In C++

1. Program for Explaining the construction overloading.

Content 30 : Constructors with Default Arguments In C++

1. Program for installing default constructor.

### Content 31 : Dynamic Initialization of Objects Using Constructors In C++

1. Program Related Dynamic initialization of arrays.

Content 32 : Copy Constructors In C++

1. Code relatred to the copy consrutor.

Content 33 : Destructor In C++

1. Code for explaining the Destructor.

Content 34 : **Inheritance & Its Different Types with Examples in C++**

1. What is inheritance.
2. Types of inheritance.
3. Single heritance with diagram.
4. Hierarchical inheritance with diagram.
5. Hybrid inheritance with diagram.
6. Multilevel inheritance with diagram.

Content 35 : Inheritance Syntax And Visiblity mode In C++

1. Syntax of inheritance.
2. Points about inheritance.
3. Code to explaination.

Content 36 : Single Inheritance Deep Dive: Examples + Code

1. Code for Explaination.

Content 37 : **Protected Access modifiers in C++**

1. Table for Access Modifier.
2. Code.

Content 38 : **Multi-Level Inheritance Program**

1. Important points about the written code.
2. Code.

Content 39 : **Multiple Inheritance Program**

1. Important points about the written code.
2. Code.

Content 40 : **Ambguity Resolution In Inheritance**

1. About Ambiguity.
2. Codes.

Content 41 :