



## CODE# PRESENTS SUMMER TRAINING ON

### ADVANCE C++

### DOT NET FRAMEWORK

#### WEEK 1

- \* Console Applications and Static Libraries in Visual C++.
- \* Variables in C++.
- \* Using the keyword **auto**
- \* Functions and Classes in C++.
- \* namespaces and its forms in C++ 17.

#### WEEK 2

- \* Vectors & List
- \* `std::optional` & `std::any`
- \* Templates in C++.
- \* Understanding **SFINAE** and **ADL** in C++.
- \* Writing Variadic templates in C++.
- \* Working with **fold-expressions** in Visual C++.

#### WEEK 3

- \* Understanding the use of `static_assert` in C++.
- \* Demystifying `constexpr` and `constexpr-if` in C++.



#### WEEK 4

- \* Principles of writing a good program in C++.
- \* Understanding the **DRY** principle.
- \* Understanding the **SRP** principle.

#### WEEK 5

- \* **Processes and Threads**.
- \* Multithreading with the `std::thread` library in C++.
- \* Nature of **volatile** keyword in C++.
- \* Computing the running time of functions using the `std::chrono` library.
- \* **locks and lock free programming** in C++.
- \* Getting started with the **atomics** in C++.

#### WEEK 6

- \* Differences between managed and unmanaged languages with the DOT.NET framework.
- \* Linking procedure between managed and unmanaged languages using CLI wrappers and Pinvoke technology.
- \* Building the habit UI.
- \* Backend with the frontend of habit app using Visual C++ and C#.



Speaker:  
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**11 June – 21 July 2018**

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