

Links:

<http://www.learncpp.com/>

<https://www.tutorialspoint.com/cplusplus/>

<https://www.sololearn.com/Course/CPlusPlus/>

<http://www.icce.rug.nl/documents/cplusplus/>

<https://google.github.io/styleguide/cppguide.html>

<https://www.udemy.com/free-learn-c-tutorial-beginners/>

<https://www.udemy.com/advanced-c-programming/>

<https://www.amazon.com/Effective-Specific-Improve-Programs-Designs/dp/0321334876>

<https://www.amazon.com/Programming-Language-Special-3rd/dp/0201700735>

<https://www.amazon.com/FAQs-2nd-Marshall-P-Cline/dp/0201309831>

<https://www.amazon.com/Effective-Modern-Specific-Ways-Improve/dp/1491903996>

Sample projects:

1. Write a program which performs addition, subtraction, multiplication of matrices.

The dimensions of both the matrices would be specified by the user (dynamic memory allocation required).

Use of structure or a class to define the matrix would be a good idea.

2. Write a program which will perform the job of moving the file from one location to another.

The source and destination path will be entered by the user.

Perform the required error checking and handle the exceptions accordingly.

3. Write a program which acted like a personal planner.

In which a user can input in event, note of thing to-do on certain date.

Use preferred database engine.

Key issues:

1. Approach for multithreading

2. Approach for memory leaks and how to handle them (smart pointers)

3. Use of OOP (pointers, classes, etc.)

4. Use of STL, everything during technical interview should only use STL
5. Use of design patterns (singleton, factory, observer, etc.)
6. Algorithms and data structures (binary search tree, calculating depth of a binary tree, inserting random value at a random place in a defined vector, etc.)