



PG-DAC

C++ Programming

1. How C++ manage its memory? Explain new & delete operators for variables, objects and arrays.
2. Is it possible to delete storage acquired by a local variable in static memory using delete keyword in C++?
3. What is the use of destructors? Write a legal example of a destructor.
4. What are the OOP concepts present in C++/Java? Explain with one example each.
5. How to create an abstract class in C++? How to write a pure virtual function? Can we write a body of pure virtual function?
6. What is getter and setter? Why do we use that? Write down a small code example.
7. Create a spiral matrix. (You can find this problem in Leetcode <https://leetcode.com/problems/spiral-matrix/>)
8. What is "this" pointer? Is it available for static, virtual, const and friend functions?
9. What is the need to write a user defined destructor? When should it be declared as "virtual"?
10. How does virtual function affect the size of an object? How are they executed at runtime?
11. What is the diamond problem? How to solve it?
12. What is shallow copy and deep copy? How is it implemented in C++? Explain with examples.
13. What is a smart pointer? Which are smart pointers in C++?
14. What is STL? Explain different components in STL with examples?

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