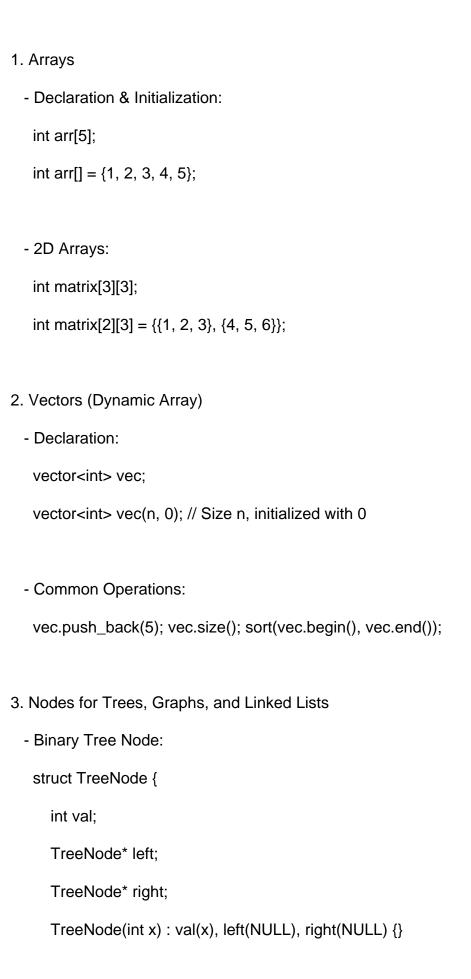
C++ Cheat Sheet for LeetCode & Competitive Programming



```
- Graph Node:
   struct GraphNode {
     int val;
     vector<GraphNode*> neighbors;
     GraphNode(int x) : val(x) {}
  };
 - Linked List Node:
   struct ListNode {
     int val;
     ListNode* next;
     ListNode(int x) : val(x), next(NULL) {}
  };
4. Custom Comparators
 - Custom Comparator for Sorting:
   sort(arr, arr + n, [](int a, int b) { return a > b; });
 - Custom Comparator for Priority Queue (Min-Heap):
   priority_queue<int, vector<int>, greater<int>> minHeap;
 - Priority Queue with Custom Comparator for Pair:
   priority_queue<pair<int, int>, vector<pair<int, int>>, CustomCompare> pq;
   struct CustomCompare {
```

};

```
bool operator()(pair<int, int> a, pair<int, int> b) {
        return a.first > b.first; // Custom condition
     }
   };
5. Stack, Queue, and Deque
  - Stack:
   stack<int> st;
   st.push(5); st.pop();
  - Queue:
   queue<int> q;
   q.push(5); q.front(); q.pop();
 - Deque:
   deque<int> dq;
   dq.push_front(1); dq.push_back(2);
6. Maps and Sets
 - Map: map<int, string> mp;
   mp[1] = "One";
  - Set: set<int> s;
   s.insert(5); s.count(5);
```

7. Math Functions

- Absolute: abs(x);

- Max/Min: max(a, b); min(a, b);

- Power: pow(base, exponent);