# Mobileum - Manali Tapre
4/08/2017

## Round 1 - Technical Aptitude

1) C++
2) Java
3) Database
4) Quants & logical.

## Round 2 - Face to Face Interview.

1) Exception handling in Java
   (concepts as well as coding - they check how much coding have you done. Precise questions - what will happen if I write throw after printStackTrace in catch. what will happen if I write return after that throws, etc).

2) Multithreading -
   (same as above)
   including Producer - consumer code

3) Collection API
   Suppose we have multiple objects of Employee class and store them in a file. Now write a code to retrieve them from file, sort them on basis of their age and display them.

4) Draw database structure for given scenario.

2 queries based on that structure.

5) Basic Linux commands :-

a) ls - al

b). command to find process id.

Roshan Sawant

## Mobilium

1) What is class defination in your words.
2) what is object.
3) User can Enter many elements and you dont have any collection or structure or array . How can you manipulate (insert , update) data.
4) What are basic Data structure.
5) What are the different ways to implement stack.
6) Write a program to implement stack wing link list.
7) What is singleton class. and Give one practical sinario where you will we singleton class.

## Cybage

1) Explain your project.
2) Data base queries.
3) ACID properties.
4) Difference between Quick and Merg sort.
5) Explain algorithm for Quick sort.
   (Tell the worst condition in Quick sort)
6) Write program to reverse the string.
7) Puzzel of 2 solid ropes to measure 45 min
8) And in HR whatever cover in PPT they will ask question.

Prachi Shroff

Technical Questions (Mobileum)

PAGE No.
DATE / /

Diff b/w new & malloc?
Diff. b/w free & delete?
How malloc assign memory dynamically?
When it is compulsory to Override finalize method?
What is diff. b/w wait & sleep?
What is diff. b/w ClassNotFoundException & NoClassDefError?
What is diff. b/w PreparedStatement & Statement?
What is StackOverFlow error?
Give the name of one RuntimeException?
What is insertion sort, quick sort, Heap sort?
Time & Space Complexity of sort & How we can calculate it?
How Chess Board Implemented & which datastructure is used?
Write query to find 2nd highest salary?
Datastructure used in Set of Cards?
What is Virtual Destructor?

How length variable is defined in array?
→ arr.length
→ ~~arr.length~~ arr.size()
→ arr.length()
→ arr.Length()

Mobileum  Sachin. Gotal

Technical

1) Stack Implementation
2) Linked List Implementation
3) Stack using Linked List
4) Threading ->
   Producer, Consumer

I was told to write code for each and every question

5) Data Structure that can be used in Producer, Consumer if producer can produce any amount of values and consumer can consume any amount of values.

Akshay Kadam. ⟶ Mobileum.

1) What is diff. betⁿ Hashmap & Hash table?

2) If two or more threads is accessing same variable then how can i guarantee their smooth access?

→ By using synchronised block.

3) What will you prefer HashMap or Hash table? ~~& why?~~

– Hash Map.

4) Why HashMap as it is not thread safe.

– Because I can use synchronised block wherever logic demands.

5) Program for reversing a string.

6) Program for Singleton class. (~~Pseudo code~~).

7) Program for stack.

8) Query when ~~two~~ table contains 2 or more names & I want only 1 name at a time.

→ Select distinct (Name)

from table_name;

| No | Name | Month | Marks |
|---|---|---|---|
| 1 | Raj | June | 20 |
| 2 | Raj | July | 25 |
| 3 | Akshay | May | 15 |
| 4 | Raj | Apr | 10 |

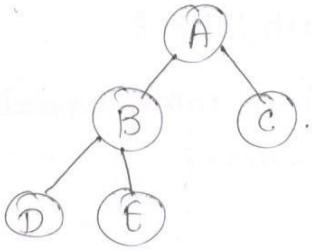
9) I want sum of marks in above table having same name.

→ Select name, sum(sal) ~~sal~~ from table_name group by name

10) In C++ syntax, previously ~~people~~ ~~we~~ there was return any no like return -1, return 0 like this in case of exception & Now in java we throw exception by 'throws' keyword to calling method what is advantage of both.

1) ~~What is difference bet"~~

11) Give the postorder of below tree.




=> D E B C A

12)

Omkar Malandkar → Mobileum. for C++

1st technical

→ Tell me about yourself.

→ Why you like c++ & java.

→ What is polymorphism.

→ Give realtime example of polymorphism

→ ~~main~~ class {

```
void add (int a)
{

}

int add (int *ptr)
{

}

}

main ()
{
    int a = 5;
    int *ptr;
    add (a);  → How compiler know which f° to call
    add (&a); → How
}
```

Ans is (name mangling)

→ ~~Hello~~ What is copy constructor?.

→ Why (&ref) in constructor argument.

→

→
```
class A
{
  add( )
  {// }
}
class B : A
{
  add( )
  {
  } }
```

Class *A = new B( )

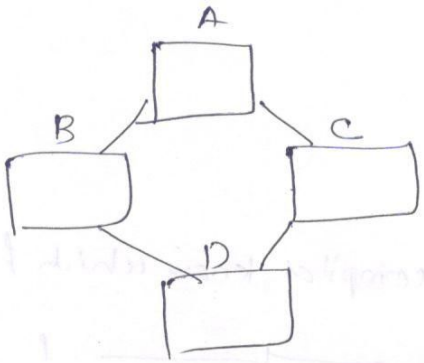
A.add() → which function it will call

what will have if ~~many~~ virtual keyword is used with add function

→ Why we use virtual?

→ How it (compiler) come to know that which methode to call?

→




class D *p = new D ( );

→ what will happen if we create object of class D and class A has one methode disp.

→ How will you solve this problem
Ans :- using virtual keyword.

→ How internally it solve using virtual keyword.

→ virtual table ? what it holds ?

→ How many virtual table per class

→ How many virtual pointer per object

→ what is stack?

→ implement stack using Link list. add push(), pop() implementation. to class.

→ → Threading in C++ ? What is mutex & semaphore

2nd technical

→ reverse string using recursion.

→ Create two dimensional array. ~~no~~ no. of rows accept from user, no of columns take from user.

→ then print all elements.

→ why we write .header and .cpp seperately.

→ I create on header A.h

Create class B & include A.h

create class C & include A.h

and now I create one binary file including all there ( A.h , class B, class C) what will happen.

→ ~~static~~ abc ( )

{

static a = 1

a++;

a++;

print a

}

main()

{

p_thread ( ~~func~~ abc() );

for ( i=0; i<5; i++);

} Five threads call fn

What will be value of ... in each

3rd technical

→

```
class A
{
    static void add ( argument )
    {
        // code.
    }
}

main ( )
{
    int a = 5
    int b = 6
    int c;
    A::add ( ——— , ——— )
    print (c)
}
```

write code and argument in function add and functioncall such that c will print value.

One change int * c = Null;

Now again write code.