

- ① Interface vs Abstract class
- ② Different ways to create a thread
- ③ Advantage of using Thread class to create a thread
- ④ How to find all parent class fields → (Reflection API)
- ⑤ overriding rules
- ⑥ Servlet life cycle?
- ⑦ Sessions?
- ⑧ how to make a class immutable?
- ⑨ Steps for JDBC connection
- ⑩ Implicit Objects of JSP
- ⑪ Difference between JSP vs servlet
- ⑫ Servlet chaining?

SMART STREAM  
Shrishti  
Person 1 (Mr. Raviraj)

Data Structures

- ① - All sorting algorithms and their time complexity.
- ② - All the collections, its properties.
- ③ - class implements set.  
and has a base class no part  
implement boolean add (Object A) for  
② boolean contains (Object A)  
} P P P P

write these methods in the above  
class.

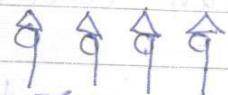
way → the Add method should add the object to the set and return true, since set doesn't contain duplicate values, if you try to add same object then it should return false.

- ④ - All the collections with properties and details.
- ⑤ - Asked about CDAC project

- ⑥ - 3 bags ~~labeled~~ contain fruits and labeled wrongly as "oranges", "apples" and "oranges and apples"

you have are allowed to put your hand and check ~~only~~ one bag. And you have to label them correctly.

- ⑦ 4 persons are standing in a line. They are wearing ~~red~~ a red and blue hats but they don't know the colour of their hat.



Whoever guesses ~~as~~ correct colour of his hat gets ~~you~~ a point. How will you collect maximum points?

- ⑧ TPA, struts what are they? Pojos  
(Basically, from the project.)

Attributes.

- ⑨ Algorithm for programming— Read from a file and count the number of ~~consecutives~~, b's... and print them.

tracing (AC) - two box -

two first visitors set good 2 -

" " -> plonow is selected

" " -> b's second has " " visitors

# SMART STREAM

Person 2

|          |  |  |
|----------|--|--|
| PAGE No. |  |  |
| DATE     |  |  |

- Overloading overriding
- OOPS (Polymorphism)
- What do you know about Java?
- Tell me something about Java?
- Difference between servlet and JSP.
- There is a cube of 1 cm dimension what will be its volume if you increased it by 1.

Person 3 (HR)

- What is one thing in your academic life that you would like to change?
- What is one thing in your ~~non~~ non-academic life that you would like to change?

Person 4 (Ritesh)

- How will you put lock on ~~two~~ rows?
- What are reflections? Think of a scenario where you will use it.
- What are optimistic and pessimistic techniques in Oracle? :S

(I)

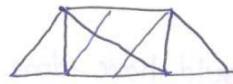
## Smart Stream Technologies

Mitesh M. Gavand

Q.1) Write a program to find a character which is not repeated in the given String "abcdeabccde"

Q.2) What are the types of languages in Oracle?

Q.3) Brain Puzzle → Find number of triangles?



Q.4) Write a query to find number of employees in table Emp according to their joining date.

Q.5) class sequence

{

    private long id;

    public void increment ()

{

        id++;

}

}

- What is required to do so that increment() is made thread-safe?
- What will be the value of 'id' after 10 threads have called increment()?

Q.6) What is the difference between HashMap and LinkedHashMap?

(J)

Q.1) What is the difference between abstract class & interface?

Q.2) What is virtual method?

Q.3) What is Preemptive in OS?

Q.4) Draw E-R diagram for: Person has Cars

Also, draw tables accordingly.

Q.B)

(III)

Q.1) Write a program for factorial of a number?

Q.2) Explain immutable nature of String?

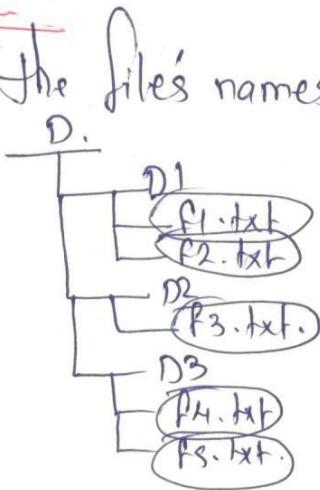
What can be done to make a string mutable?

What we could have done if there was not String Builder / StringBuffer  
in java?

## -: SMART STREAM :-

Rishikesh Dedhia

- ↳ Write a program to Print all the file's names from a given directory



↳ Overriding & Polymorphism.

↳ Many-to-Many & One-to-Many Relationship Mapping in tables.

↳ What scheduling algo does Microsoft Use.

↳ Processes in OS.

↳ Scheduling Algorithms.

↳ Internationalization.

8) class A

```

    {
        int i = 5;
        public void xyz()
        {
            sop(i);
        }
    }
  
```

class B

```

    {
        int i = 4;
        public void xyz()
        {
            sop(i);
        }
    }
  
```

main()

```

    {
        A a = new A();
        sop(a.i); a.xyz();
        a = new B();
        $ sop(a.i);
        a.xyz();
    }
  
```

O/p => {

Ques 1. Given : Lion Ringmaster flaming ring. Ticketchecker & Viewers.

Design a Circus using oops concept. ?

## SMART STREAM

Ques 2 In above question if Ringmaster has to give an instruction to Lion then How he will give?

Ques 3 How Ticketchecker will check tickets of viewers?

Ques 4 Instead of Lion I want to instruct Tiger then what to do?

Ques 5 String vs StringBuffer ?

Ques 6 What is collection? Define internal structure of hashmap?

Ques 7 str1 = "ABC" str2 = "XYZ" str3 = "PQR"

then I want result "ABCXYZPQR"

through toString method. But condition is don't create new object?

Ques 8 Create class of playing Cards?

Ques 9 We are storing a,b,c...z & I want to account how many times a come, b come etc?

Design shift operators?

Derive formula of sphere  $\rightarrow \frac{4}{3}\pi r^3$ ?  
full wave rectifier?

What is the effect of adding a small amount of salt to water? Explain.

Do we get more than one solution with respect to the boundary conditions?

What is the effect of adding a small amount of salt to water? Explain.  
What is the effect of adding a small amount of salt to water? Explain.

How will you control the following? Due to what reason?

"eff" = due to "eff" = due to "eff" = due to "eff"

"eff" = due to "eff" = due to "eff" = due to "eff"  
in addition to the heat loss per unit area.

Explain how does the heat loss per unit area

depends on the properties of the body stored?

How "eff" is  $\propto \theta_0 - \theta_1$  where  $\theta_0$  is the initial  
temperature and  $\theta_1$  is the final temperature?

## Technical Interview:-

- 1) Project Description with the technology used.  
why struts? Advantage?
- 2) what is MVC?
- 3) Difference between HashMap and HashTable?
- 4) Difference between servlet and JSP?
- 5) Explain public static void main (String args[])
- 6) What is Inheritance? Application?
- 7) Types of Join? write query?
- 8) Unix commands?
- 9) Recursion factorial program?
- 10) sorting? sort the elements with 3 different ways?
- 11) what is MultiThreading?

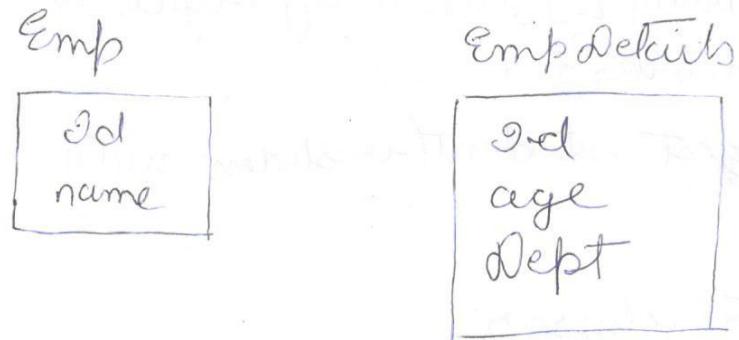
# SMART STREAM

Tejas

- 1) What is Hashmap, List
- 2) What is Set
- 3) Polymorphism (Static & Dynamic)
- 4) Encapsulated types
- 5) Sum of prime no from 0-1000
- 6) You have a Student array [ ] containing objects of  
Students { int id, int marks }  
Give me second highest student (ie student with  
second highest marks).
- 7) What are Adapter classes.
- 8) Overloading & Overriding
- 9) Class A  
 {  
 int fun()  
 }
- Class B extends A  
 {  
 float fun();  $\Rightarrow$  is this overloading or overriding?  
 }
- Give op.
- B ob = new A();  
 ob.fun  $\Rightarrow$  & what is the output  
 int conflicts -

- 104 Features of OOPS.
- 117 Implicit objects of JSP
- 127 What is hash code?
- 137 Can you have static functions in Abstract class.
- 147 When do you override hashCode?

### Oracle



Give me Employee oldest Employee > department wise

H.R.

- Final year subjects
- Favorite topics in maths? What is calculus  
Derivation? Integrations?
- Tell me about yourself?
- What do you do in free time?
- Tell me some algorithms (Kruskals, Dijkstras)

- Q. 1] What is features of Java
- Q. 2] Tell me about OOPS concept
- Q. 3] what is polymorphism?
- Q. 4] write a code to achieve polymorphism
- Q. 5] write an algorithm for reading the data from file and a count the occurrence of each character in that file.
- Q. 6] Write a java code for above algorithm,
- Q. 7] what is your thinking process before you write any code / application.
- Q. 8] Difference between C++ and Java
- Q. 9] write a ~~syntax~~ ANSI recommended syntax for displaying matching record from both the table and unmatched record from left hand side table.
- Q. 10] write a query using "having" clause.

**SMART STREAM**  
Shivangi

|          |  |
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Done

Person 1 (Mr. Raviraj)

Data structures and algorithms

(1) - All sorting algorithms and their time complexity

(2) - All the collections, its properties.

(3) - class A implements set

{  
    @Override  
    boolean add(Object A);

    @Override  
    boolean contains(Object A);

}

write these methods in the above class.

- Add method should add the object to the set and return true, since set doesn't contain duplicate values, if you try to add same object then it should return false.

- if object is not null, returns true.

~~if~~

(4) - All the collections with properties and details.

(5) - Asked about CDAC project

(6) - 3 bags were contain fruits and

labeled wrongly as "oranges",  
"apples" and "oranges and apples"

You have are allowed to put your hand and check only one bag. And you have to label them correctly.

- ⑦ 4 persons are standing in a line. They are wearing red and blue hats but they don't know the colour of their hat.



Whoever guesses correct colour of his hat gets you a point. How will you collect maximum points?

- ⑧ TPA, struts what are they? Pojos?  
(Basically from the project.)  
Attributes.

- ⑨ Algorithm for program:- Read from a file and count the number of a's, b's .. and print them.

```

file f = new file ("filename");
byte b = new byte [int] f.length();
int k = f.read(b);
for {
}
    
```

Qn.1 Given : Lion: Ringmaster, Flamingring, Ticketchecker & Viewers.

Design a Circus using oops concept?

## SMART STREAM

Qn.2 In above question if Ringmaster has to give an instruction to Lion then How he will give?

(1)

Qn.3 How Ticketchecker will check tickets of viewers?

(2)

Qn.4 Instead of Lion & I want to instruct Tiger then what to do?

Qn.5 String vs StringBuffer?

Qn.6 What is Collection? Define internal structure of hashmap?

(3)  
Qn.7

str1 = "ABC"      str2 = "XYZ"      str3 = "PQR"

then I want result "ABCXYZPQR" through toString method. But condition is don't create new object?

Qn.8 Create class of playing Cards?

Qn.9 We are storing a,b,c...z & I want to account how many times a come, b come & so on?

## (E) Technical: (database)

SmartStream

- ① What is index
- ② What is difference between primary key, foreign key and index
- ③ Write an insert query for the emp table.

| ID | name | dept |
|----|------|------|
|    |      |      |

- ④ Write an update for both name & dept at one go.
- ⑤ Write an insert for the following table

| ID | name | dept | Date |
|----|------|------|------|
|    |      |      |      |

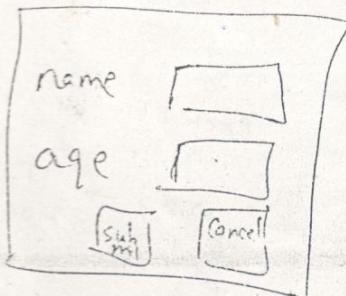
⑥ (Testing) Write an update for the same.

⑦ What is SDLC life cycle?

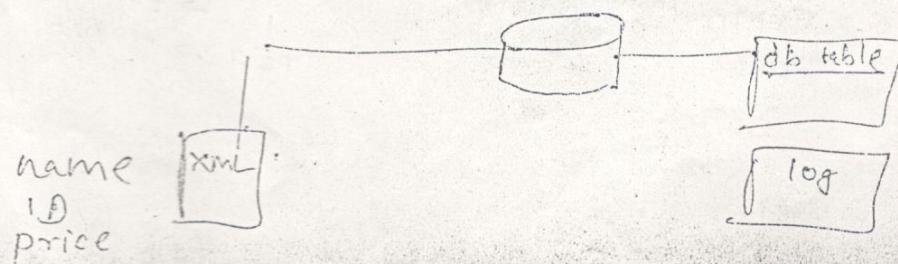
⑧ What is testing life cycle?

⑨ What are the testing tools you are aware of?

## (II) Technical:



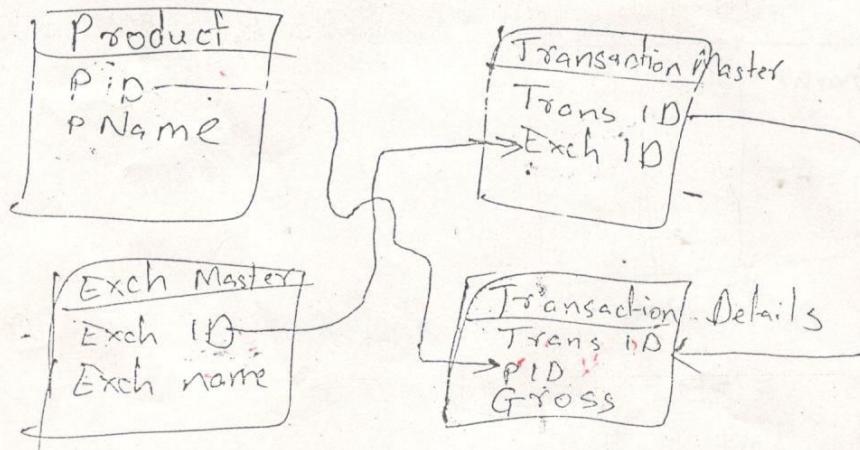
Write test cases.



Write test cases.

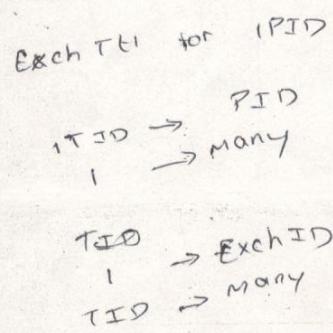
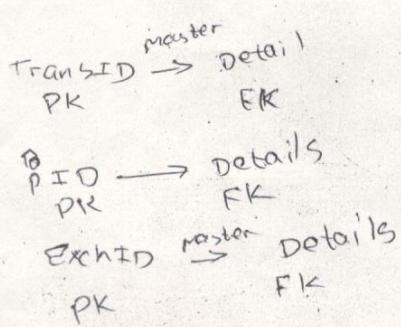
## HR

- ① What do you want to join smartstream
- ② What is your interest in testing field
- ③ What are your key interests
- ④ Family background.
- ⑤ School /college
- ⑥ Doc marks
- ⑦ Did you try through college campus interviews.



Write a query to display exchange wise gross total for a particular product ID.

Exchanged and Trans



① What is Hashmap, List

④ What is Set

⑤ Polymorphism (Static & Dynamic)

⑥ Inheritance types

⑦ Sum of prime no from 0-1000 :

⑧ You have a Student Array [] containing objects of  
Students { int id, int marks }.

give me second highest student (ie student with  
second highest marks).

⑨ What are abstract classes?

⑩ Overloading & Overriding

⑪ Class A

int fun()

}

Class B extends A

float fun();  $\Rightarrow$  is this overloading or overriding?  
}

Ans: O/L

B ob = new A();

ob.fun  $\rightarrow$  what is the output  
int conflict -

104 Features of OOPS.

✓ Page

✓ Error

✓ Context

✓ Application

✓ Out

✓ Session

✓ Request

✓ Response

117 Implicit objects of JSP

127 What is hashcode?

137 Can you have static functions in Abstract class.

147 When do you override hashCode?

Oracle

Emp

|      |
|------|
| Id   |
| name |

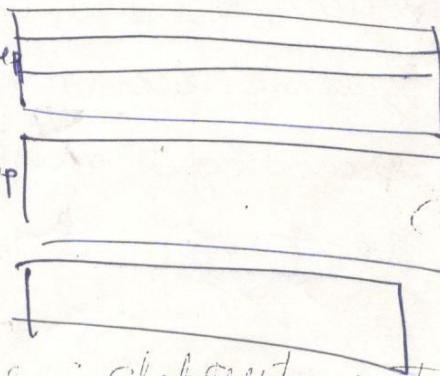
EmpDetails

|      |
|------|
| Id   |
| age  |
| Dept |

group

group

Select name, age, dept



Give me Employee oldest Employee : department wise

H.R

→ Final year subject?

→ Favorite topics in maths? What is calculus, Derivation? Integration?

→ Tell me about yourself?

→ What do you do in free time?

→ Tell me some algorithms (Kruskals, Dijkstras)

Select name, dept

from emp, empdetails

where emp.id = empdetails.id

g.

order by

Select

~~STUDY~~

Sagar Shaff : Smartstream

Q1] Final year subjects?

Q2] What is Interface? Where can it be used?

Q3] What is Polymorphism?

Q4] What is Connection in JDBC → class / Interface?

& Why do you think so?

Q5] What is MVC?

Q6] Late Binding Eg?

Q7] Scenario

a) A program updates to Table1, then after updating it inserts to Table2. But while inserting in T2 if it fails then u don't want T1 should be updated.

b) Thread1 on myObj, Thread2 on myObj  
Thread1 calls ~~synchronized~~ fun1() & Thread2 calls synchronized fun2(), if T1 goes inside first, then what will happen to T2?

c) ~~similarly~~ same questn, but now lets say fun2() is not synchronized but it has a synchronized block ~~in~~ inside fun2() ? then what will happen?

~~Q~~ What is Synchronized block.

value in a table

Q Write a Query to find duplicates & count the no of times the value has occurred?

Q WAP on Factorial of a given no?

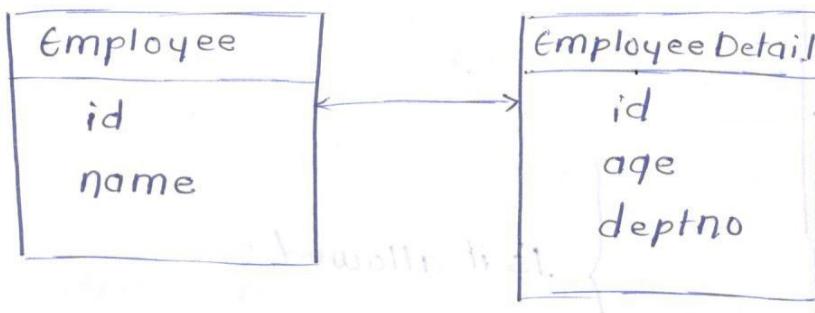
Q Can u do the same without loops then how?

~~Q~~

Q Difference between Servlet & JSP

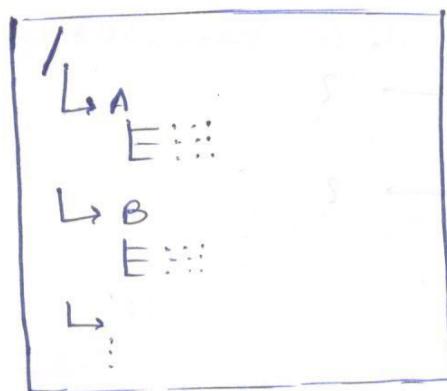
Q

1)



Display all the oldest employee department wise.

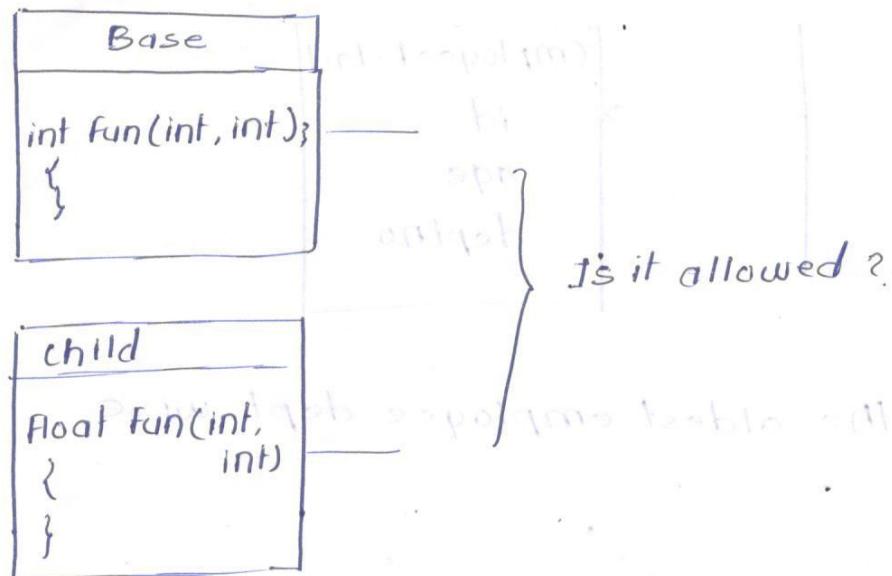
2)



write a program which accept the name of root directory, it scans all the sub directories, (including sub-sub-sub directories (if any)) and displays all the filenames with extention '.JPG'.

3.) Write a program which implements queue using threading concept. One thread will add elements in the queue while other will remove. If the queue is full then first thread should wait. If the queue is empty the second thread should wait.

4.)



i) child ob = new Base();

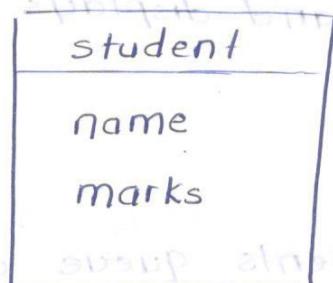
ob.fun();

ii) Base ob = new child();

syos( ob.fun(5,6));

int a = ob.fun(5,6);

5.)



write a program which takes an array of student and display the name of student having second highest marks

6. JDBC is an interface or class ?
7. Difference between array list and linked list ?
8. driver manager . getConnection ("?", "?", "?");  
→ how connection is obtained ?
9. Detailed description of Project  
(Focussed on JPA more).

- 1) What is OOPS? with 1 Real World example?
- 2) Features of OOPS? [Encapsulation, Abstract, Inheritance, Polymorphism]
- 3) Why String is Immutable?
- 4) Polymorphism types? [Compile & Run-time] with example?
- 5) All Concept of Collections?
- 6) ArrayList Data Structure?
- 7) HashMap & Hashtable Diff?
- 8) Can Overloading be done in Inheritance? In Which Scenario you must need to do that?
- 9) Can Key in Hashtable be null?
- 10) What is NullPointerException?
- 11) Can I throw NullPointerException? Any RuntimeExcept?
- 12) Diff bet Checked & Unchecked Except?
- 13) What is Except & Error? Diff bet them?
- 14) Can I throw Error from my code?
- 15) What all parameters can I write in catch (Except e)
- 16) What is JDBC? Types of Driver?
- 17) What is Date Structure?
- 18) What are Map? When to use Map?

- 19) Difference bet' Iterator & List Iterator?
- 20) How to use Iterator in Map?  
~~(X)~~
- 21) How to call Garbage Collector?
- 22) Diff bet' C++ & Java?
- 23) What is Disconnected Architecture? [In JDBC]
- 24) About Your Project & Your Role?
- 25) What is Primary Key? Why we use?
- 26) Diff bet' procedures & functions?
- 27) What is SQL & PL-SQL? Diff bet' them?
- 28) Write JDBC Code to retrieve ~~and~~ details of employee ~~Using~~ Where id should be taken from textbox?  
→ Explain each line of Code?
- 29) Adding & Retrieving value from Map of any Sub-type?
- 30) Write Code to define one function which accept string as parameter & return Map reference.  
That function will calculate no. of repeated characters & Map object will store character as key & count as value. Display the Map values in main().

Q. Which is your favourite subject.

Q. What does  $ax^2 + bx + c = 0$  represents.

Q. What curve does  $y = ax^2 + bx + c$  represents.

Q. Diff. between permutation and combination.

Q. If you have 10 black & 11 white socks  
What minimum & maximum no. of socks  
you will take to get ~~the~~ 5 pair of socks.

Q. If there is building of 10 floors & i  
want to check if the lift halts at all the floors  
& when i call the lift the light ft should  
glow at each floor. How will you check that.

Q. Program for factorial using ~~for~~ for loop  
& recursive function.

Explain how recursive function work.

Q. Tell me about your project.

8.

# Smart Stream 4 Aug 2017 Vita

- 1) write class ~~Person~~ (normal) {  
2) have class in that class } i.e. He is asking about inner classes
- 3) ~~inst~~ now instantiate inner class.
- 4) can inner access outer?
- 5) can outer class access inner ~~clss~~ class data/fields
- 6) Explain your project.
- 7) database of project
- 8) How you ~~were~~ displaying data from database  
(in case of menu, submenu on site)
- 9) write program for fibonacci series.
- 10) What extra feature (other than your project and websites existing ~~as~~ same as your project) ~~that~~ you can imagine that will be more productive and impressive for your customers

- ① write program for exchanging array elements in same array (do not take any extra array).  

|      |   |   |    |   |   |
|------|---|---|----|---|---|
| 2    | 8 | 3 | 10 | 5 | 1 |
| swap |   |   |    |   |   |
| 1    | 5 | 0 | 3  | 8 | 2 |

- ② what is process. ③ what is thread ④ threads execution
- ⑤ operating system memory ⑥ how much memory gets allocated to process
- ⑦ what is Socket ⑧ what is IP address.

- Q) what is TCP/IP protocol
- Q) what is HTTP protocol
- Q) what is transaction (database)
- Q) Why need transaction
- Q) if i write select query in transaction, will it be affected by commit or rollback
- Q) what gets commit/rollback in transaction  
(asked much about database & transaction)
- Q) DML, DDL. } read about it  
Some small que are there
- Q) class {
- ```

int code;
String location;
List<Office> subOffices;
}

```
- Q) Write a program in Java to find the code of all the offices whose location is Mumbai.
- Q) Write a Java program to print Prime numbers in 1 to 100.

### Q) Method Overriding

```
class A {
```

```
    int add (int a, int b) {
```

```
    }
```

```
class B extends A {
```

```
    float add (float a, float b) {
```

```
        return a + b; }
```

<sup>↑</sup> This is Method overloading.

```
class B extends A {
```

```
    float add (int a, int b) {
```

```
    }
```

<sup>↑</sup> This is Compile time error.

# SMARTSTREAM

05/02/2016

## Technical - I + HR

Name: Atul A. wagare

- ① All DBMS concepts, joins, subqueries in depth.  
They ask to ~~g~~ join tables on given scenario
- ② W.a.p to reverse array (char) without using another array.
- ③ CDAC project in depth + BE projects + Diploma Project,  
depth as well as database you should know all the projects in of your project.
- ④ Abstract class & interface
- ⑤ collection all concept Hierarchy, etc.
- ⑥ Sorting algorithm apply the sorting on given scenario like, do salary wise sorting.
- ⑦ spring, Hibernate, etc.

## Technical & HR :-

- ① what is process , Thread give example & explain.
- ② scheduling algorithm i.e. FCFS, RR etc.
- ③ few aptitude questions.
- ④ asked most of the questions on DBMS.
- ⑤ asked what do you know about Angular-js.
- ⑥ one to many , many to many relationship in your project.
- ⑦ Hibernate concepts.
- ⑧ what thread life cycle., thread communication

- 
- Q Method Overriding Exception rules.
  - Q Internal working Hashmap put
  - Q Difference between list and set. In what scenarios should we use them.
  - Q In what scenario ~~what~~ should we use linked list, Array list.
  - Q Difference between Process and thread.
  - Q Process scheduling Algorithm in DS.

Technical  
Round - 1

Java

① Write a program to find factorial of number  
(with loops / without loop).

② OOPS concepts with example.

③ Abstract class

④ Interface } Questions

⑤ Inheritance (Examples)

⑥ Polymorphism

⑦ Upcasting & Downcasting

Collection → i) In Details  
with syntax.)

i) ArrayList } Diff bet

ii) LinkedList } Diff bet

iii) TreeSet } Diff bet

iv) HashSet } Diff bet

v) HashMap } Diff bet

vi) Hashtable } Diff bet

⑨ Multithreading

⑩ Working of HashTable & HashMap.

⑪ program :-

```
class Employee {
    string fname;
    string lname;
```

⑫ Generics. sort employee names in ascending way.

Database

① Joins  
i) Inner Join  
ii) Left Join  
iii) Right Join  
iv) Full Join.

② Query on joins

③ Aggregate functions. (Query),

④ Where & Having diff clause.

⑤ Index.

## Technical Round - 2

### Data Structure

#### ① Bookshelf

Shelf no. →

|                |   |   |   |   |   |   |   |
|----------------|---|---|---|---|---|---|---|
| S <sub>1</sub> | A | D | B | C | X | V | W |
| S <sub>2</sub> |   |   |   |   |   |   |   |
| S <sub>3</sub> |   |   |   |   |   |   |   |
| S <sub>4</sub> |   |   |   |   |   |   |   |
| S <sub>5</sub> |   |   |   |   |   |   |   |
| S <sub>6</sub> |   |   |   |   |   |   |   |
| S <sub>7</sub> |   |   |   |   |   |   |   |

Books

- ② i) Use proper collection / datastructure to implement.
- ii) Write pseudo code / syntax.

#### ② ArrayList

linkedlist } Difference

#### ③ HashTable

working.

#### ④ Exception Handling

(try, catch.)

### Advanced Java

#### ⑥ Object class

methods.

#### ⑦ OOPS concepts.

#### ⑧ Threadsafe ?

#### ① Spring MVC

- features
- Why spring mvc ?
- Advantages
- Disadvantages.
- @Autowired ( constructor injection )

#### ② Servlet

- Get Method
- Post Method } Diff.
- working / flow .

#### ③ JSP

- parameters.
- Why JSP ?
- Working

#### ④ JDBC

- working
- Implementation

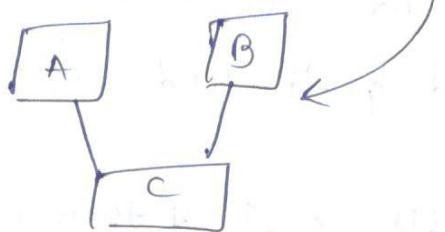
#### ⑤ Hibernate

- Why ?
- Working
- Advantages.

#### ⑥ Single sign on ?

#### ⑦ Sync.

- ① what's Java?
- ② Features of Java?
- ③ 4 Pillars of Java?
- ④ what's composition?
- ⑤ what's Abstraction with eg
- ⑥ what's Encapsulation with eg
- ⑦ Inheritance with eg
- ⑧ In java how many types of Inheritance are supported?
- ⑨ What will happen if multiple inheritance is supported?



- ⑩ ~~Code~~ to implement Inheritance.
- ⑪ what's Collection?
- ⑫ diff b/w set & list?
- ⑬ HashMap v/s HashSet. Which is threadsafe?
- ⑭ what's threading? How to implement threading in Java? How to create user defined thread?
- ⑮ what will happen if we do not override run()?
- ⑯ what's Exception? How to create user defined exception?
- ⑰ If sub class throws exception & base class does not, what will happen? Is it allowed?
- ⑱ Hierarchy of Exception.
- ⑲ Collection v/s Collections.
- ⑳ Database used for proj? Normalization level
- ㉑ How do we implement DB connectivity? Who does connectivity.
- ㉒ SqlConnection class

22

What's immutability? Why string is immutable?  
~~how to~~ why & how to make class immutable?

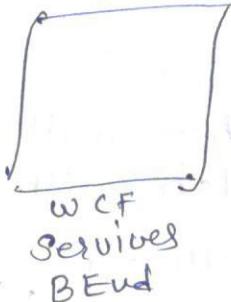
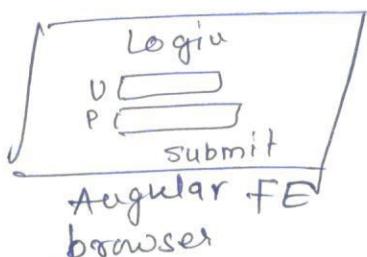
23

Types of joins. & explain them using eg

24

~~Do~~ Angular 2 Features. & main feature highlight

25



Describe flow

for this request.

What binding is used for services?

26

How does backend & frontend communicate in your project?

27

If you have 8 balls & 1 of them is heavy but you do not know which. You have weighing scale. How to do you find out which is heaviest in only 2 chances?

28

What is polymorphism? types? eg?

How your project implement polymorphism?

29

What is DOM?

HR

① Introduce yourself

② If your project is in dotnet, why you are interested in Java

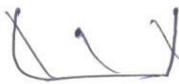
③ If you have a gap, what did you ~~spend~~ do in that period? (2016 BE passout, CDAC Feb '17 batch thus 6 month gap)

# Smart stream

4/8/17

Priyanka Mishra

- 1) What is abstraction and how do we achieve it.
- 2) Is class can be static in java?
- 3) Why do we use joins?
- 4) What constructor returns?  
there is a method implemented by a class and in both interfaces with the same signature
- 5) Two interface implemented by a class and in both interfaces with the same signature
- 6) Four pillars of java?
- 7) What is encapsulation with eg and how do we achieve it?
- 8) Types of access modifiers and its order.  
difference between protected + default.
- 9) Which inheritance is supported in java and why?
- 10) What is collection?
- 11) Difference between set & list?
- 12) In how many ways object can be created?
- 13) What is thread-safe? which collection is thread-safe?
- 14) What is synchronized block?
- 15) Difference between synchronized method and synchronized block.
- 16) Hierarchy of Exception?
- 17) Constructor invocation in java?
- 18) algo of binary search?
- 19) What is binary tree?

- 20) Difference between binary tree & BST?
- 21) Complexity of binary search?
- 22) What is indexing?
- 23) What is joins?
- 24) What is triggers? Why we use it?
- 25) Difference between procedures & function.
- 26) what is surrogate key.
- 27) What is string in java?  
why it is immutable
- 28) what is serialization & why we use it?
- 29)  name ← how to get the value  
 password of this text box using  
javascript.
- 30)   
you have 8 balls and one  
weighing machine and one  
balls from 8 is defective.  
we have to find the defective ball  
in 2 chances?
- 
- 31) Have you gone through our website?
- 32) List the services provided by the company?
- 33) What is synchronization?

1) LOGICAL + TECHNICAL (JAVA, OOPS, DB.) + 2 Essays.

TECH INTV 1<sup>st</sup> round

- 1) Difference between Java & DotNet
- 2) Is what is platform independent / dependent.
- 3) Fav subject? why?
- 4) Code Snippet — Guess the o/p (3 prog)
- 5) What is interface.
- 6) Overriding rules.
- 7) JDBC connection
- 8) Query with a join & subquery included.
- 9) Can ~~execute~~ ~~get~~ ResultSet (JDBC) hold 1,00,000 rows if returned from dB, what will happen in this case.
- 10) Which jar files are used for jdbc & from where do we get them.
- 11) Statement & Prepared Statement.
- 12) Servlet life cycle, to (4) Project desc.
- 13) What is servlet.

2<sup>nd</sup> round TI + HR

- 1) Tell me about yourself (2) what is HashMap (3) hashCode - equals contract.
- 2) exp. hashmap with example & (5) what is bucket why does it use linked list & not Array.
- 3) How did you deploy your project & which extension of that file is created.
- 4) Which server was used for the project? & how (Tomcat)
- 5) What is internal working of Tomcat.
- 6) Have you ever opened a JSP is connected to Servlet, so have you ever opened such a file & checked what code is written inside?
- 7) What is hibernate template, is it internally a JDBC?
- 8) Are you ready to work for 24-36 hrs if required.
- 9) Where was the connection steps written for hibernate template.
- 10) Which jar files were used?
- 11) In this 6 months of training did you feel you were struggling here?
- 12) What do you do in your free time & weekends.
- 13) What do you know about smart Stream
- 14) Factorial program with loop & with recursion.
- 15) H...

## Smart Stream

3<sup>rd</sup> round HR

- 1) Tell me about yourself.
- 2) Why Smart Stream
- 3) Did you go through our website.
- 4) Are you planning for higher studies  
Mtech, MS, MBA (PNo) why?

(Please go thru their website really if it is a must).

4<sup>th</sup> round TI + HR

- 1) Favourite subjects apart from C++ & Java (OS & DB)
- 2) What is process & thread example.
- 3) What happens if we create a public static variable & 2 threads tries to access it.
- 4) What happens when process is instantiated & we create a public static variable.
- 5) If there are multiple processes then how is CPU utilized.
- 6) Explain all the scheduling algorithms & their dis-advantage.
- 7) Which scheduling algorithm does Microsoft uses.
- 8) What is virtual keyword.
- 9) Prg. to interface & late binding.
- 10) We are looking for person who can work in a team are you that one?
- 11) What was your role as a TL?
- 12) Where do you see yourself 3-5 yrs from now.

## Suggestion

Date. / /

More than you're +  
→  $\frac{1}{3}$  of a person should have a good  
technical knowledge  
 $\frac{1}{3} \rightarrow$  attitude  
 $\frac{1}{3} \rightarrow$  communication skill.

They are looking for people who have  
good core knowledge in DB & JAV  
& OS.

But more importantly go with a  
good attitude and be confident.  
Do not bluff, its ok if you  
can't answer.

Try to explain with examples.

diff. between `getparameters()` & `getattribute()`

## Java

SMARTSTREAM

Kaushik

Dif. between Overloading & overriding.

## Overriding rules.

g. class A

## class B

which of the following is possible for overloading

class x

25

```
+ void disp(A a) {  
+     void disp(B b) { } } } } }
```

```
void disp (list<a> lsta) {  
    void disp (list<b> lstb) }②
```

```
void disp(list<int> lsta)
```

void disp(~~Alpha~~ linkedlist<b> lstb) } ③

Collections in detail, for a complete list of  
and the best series illustrated and described.

g. Complete the following program such that the uniqueness of set is maintained.

class mySet implements Set

{

    boolean add (Object obj){

}

    boolean contains (Object obj){

{

g. Internal structure of map.

g. What happens internally when we add object to map.

## Technical Round - 3.

- ① What is Transaction?
- ② process      }  
③ Thread      } Diff.
- ④ What is memory?
- ⑤ How memory allocated?
- ⑥ Who allocates the memory?
- ⑦ About class,  
- loading process,
- ⑧

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| A | X | B | C | Y | V |
|---|---|---|---|---|---|

← swap array  
without using 2nd array

- ⑨ 86% of 8000.
- ⑩ JVM  
- complete working process.
- ⑪ HR Questions.

## Technical Aptitude

### \* SQL

- ① Where clause, Having clause diff
- ② Types of Index.
- ③ surrogate key.
- ④ ROWID & ROWNUM.
- ⑤ Inner join Query.

### \* Java

- ① static block.
- ② Inheritance

### \* Aptitude

- ① mind borders are sufficient.  
(Time & work, speed & distance)
- ② sequence.

- SMART STREAMS**
- ① Write a program to reverse char array without extra array  
can use one temp.
  - ② What do you know in collections?
  - ③ Iterable and Iterator.
  - ④ Is Primary Key can be applied to LOB Column?
  - ⑤ Upcasting and downcasting
  - ⑥ puzzle →  

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 1 |   |   |   |   |   |
| 2 | 1 |   |   |   |   |   |
| 1 | 2 | 1 |   |   |   |   |
| 1 | 1 | 2 | 2 |   |   |   |
| 3 | 1 | 2 | 2 | 1 |   |   |
| 1 | 3 | 1 | 1 | 2 | 2 | 2 |
  - ⑦ Write a program to perform Bubble sort.
  - ⑧ Suppose you don't have string builder, and string buffer so how will you imply the concept of mutability. Write your concept.
  - ⑨ Explain polymorphism with example.
  - ⑩ Many to Many relationship in database
  - ⑪ What is ~~internationalisation~~ internationalization?
  - ⑫ What is AJAX?
  - ⑬ Conversion of Long → int and int → long
  - ⑭ What is process and different algorithms?
  - ⑮

- NAME \_\_\_\_\_
- ① Imagine if I am a genie and if I give you one wish to change one thing from your past so what it will be
  - ② Suppose if some one comes and ~~say~~ starts pointing our bad things in you so what will be your reaction.
  - ③ Do you have a girl friend?
  - ④ Do you drink?

# SMART STREAM

(SES) S.D.Ochani High School & Jr.College,

BTAC  
Ulhasnagar-1

Std. \_\_\_\_\_ Div. \_\_\_\_\_ Subject \_\_\_\_\_

Seat No. 6

Date \_\_\_\_\_ Supplement No. \_\_\_\_\_ Sig. of Supervisor \_\_\_\_\_

- 1) Explain your project. Akshay.
- 2) OOPS concept
- 3) Which version of Java & Oracle u have worked on?
- 4) Abstraction in java.
- 5) Collections → types  
Diff → ArrayList & Vector
- 6) Diff betn Error & Exception
- 7) What else can be thrown other than Exception
- 8) Public Class A {
  - public Object method (Object o)
  - {
  - s.o.p ("A");
  - }
- B extends A {
  - public Object method (Object o)
  - {
  - s.o.p ("B");
  - }
- overriding }                      possible }

- 8) How to make ArrayList threadsafe

- 9) what is throwable.
- 10) Can Error be caught
- 11) What is super of exception
- 12) servlet lifecycle.
- 13) JSP:- where content written goes once it is converted in java.
- 14) Which is aggregate function
- 15) can we have aggregate function in where clause.
- 16) Prog :- Palindrome.

- 1) Write Class card.
- 2) Area of interest :- maths.  
probability of picking  
(black & red).
- 3) How Antenna works.
- 4) Why modulation
- 5) Find area of circle  
using integration
- 5) Tech in 3288
- 6) What is serval

T. Ioi:1

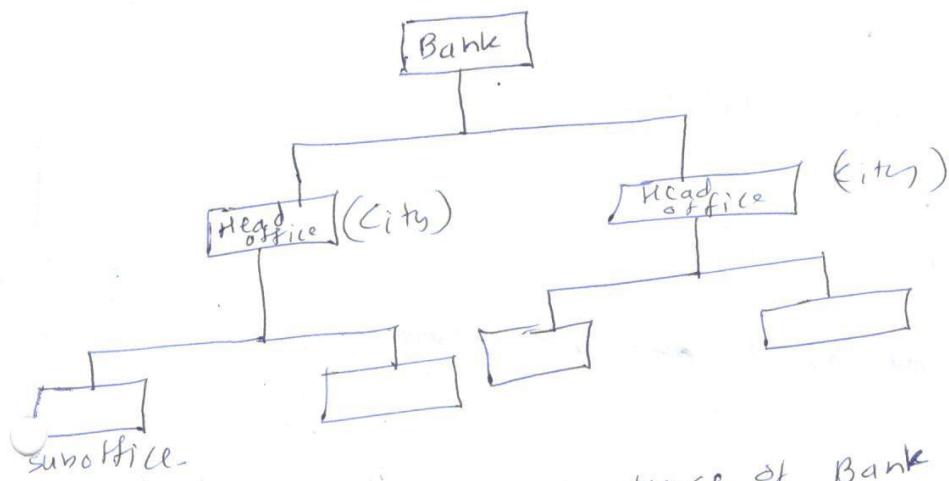
Smart Stream

Ashok

S.A.T

- 1) Explain your project & flow of your project.
- 2) What is OOPS?
- 3) Which OOPS concept you used in your project?
- 4) Write program to find factorial? (Recursive)
- 5) Name tables in your project & why they needed?
- 6) overriding & overloading?
- 7) overriding rules.

8)



you have given instance of Bank then ~~then~~

~~you~~ find sub office under particular city head office.  
~~ex :- head office = mumbai then find sub offices under it~~

- 9) prime number program?

## T. I. - 2

1) Why we don't use?

2) What is inheritance?

3) Types of inheritance in java?

4) Why we ~~can't~~ don't have multiple & Hybrid inheritance in java?

5) What is diamond problem in CPP?

6) Solution of diamond problem.

7) Tell me about your project.

8) your graduation project.

## HR :-

1) Tell me about yourself?

2) Your family.

3) Where your brother works?

4) Things you know about ~~SmartStream~~ SmartStream?