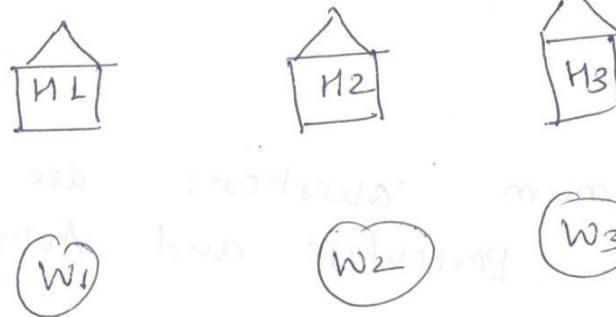


- ① Tell me about yourself.
- ② What is MVC? Why you used MVC in your project.
- ③ What is hibernate?
- ④ Why hibernate & why not stored procedures?
- ⑤ What is prepared statement?
- ⑥ Which Datastructure you like most?
- ⑦ Difference between Linklist & Arrays.
- ⑧ What is DI & IOC?
- ⑨ Can you draw tree from a inorder traversal?
- ⑩ If you know size in advance you should go for ArrayList or Arrays?

- Q ① Internal working of hibernate template
 Q ② Spring MVC flow and Architecture
 Q ③ logical problem:- How will you connect 3 house with three wells without intersecting each other



- Q ④ String Buffer & String Builder classes why we need them.
 Q ⑤ what is Maven , and how you have used it in your project.
 Q ⑥ Types of Annotations and their working
 Q ⑦ what will you prefer for multi threading implements Runnable or Extending thread class.
 Q ⑧ Difference between throw & throws in Exception
 Q ⑨ write a program for Binary search.
 Q ⑩ store Elements into an ArrayList and iterate through it.
 Q ⑪ For each loop. , - working
 Q ⑫ what are the two ways of creating a string and what does where does the memory allocated to them in heap.
 Q ⑬ what are the Hibernate files you have included in your project and what you have written in these files.
 Q ⑭ what is Dependency Injection.

Aptitude + technical test on Merit track

there are three sections

① Quantitative Ability

② Analytical Ability (Reasoning)

③ Java

60 minutes

60 questions

Each → mark



① Quant - maximum questions are from Time & work, Percentage and Averages, SI, CI, Profit etc.

② Analytical Ability :- Series and Sequences, Direction sense, Blood Relations etc.

③ Java :- Questions from both Core and Advanced Java are there such as Spring MVC, Hibernate, JDBC, collection, Exception etc.

TIAA GBS

- ① Draw architecture of your project
- ② Explain the flow of your project
- ③ Explain the components of your project
- ④ How you did Exception Handling in your project.
- ⑤ Explain public static void main (String args[])
- ⑥ Give an example of Stack, Queue, Map, Graph
- ⑦ Explain Binary Tree; draw a binary tree with seven elements, then add an eighth element.
- ⑧ Can you access static method using object.

⑨ Class A {

 int i;

 void method () {
 }

Class B extends A {

 int i;

 void method () {
 }

A a = new A();

a.method();

a.i;

B b = new B();

b.method();

b.i;

which method and member will be called?

- ⑩ What will happen if you make above methods static?
- ⑪ How to create your own exception?
- ⑫ Can i extend to throwable to create my own exception?
- ⑬ How to handle exception?
- ⑭ Difference between checked exception and unchecked exception
- ⑮ Can you handle both of them?

(16) ACID properties

(17) Explain 2 step transaction

(18) How to handle an exception in MySQL

(19) Puzzle 1

- Two ropes, unidentical burning time 1 hr each calculate 45 mins.
- You have 49 chocolates after returning 7 wrappers you get 1 chocolate back. Total how many chocolates you can have.

TIAA.

1. Tell me About yourself.
2. Tell me about your BE project.
3. DAC project.
4. Spring mvc.
5. what is dependency injection?
6. what is javascript
7. Difference between client side & server side programming.
8. Difference betw linked list & Queue.
9. Difference betw Array & ArrayList.
10. Difference betw Binary tree & Binary search Tree
11. which is better amongst Linked List & Array.

TIA A Q&S:

Nikhil R. Phadake
Feb - 2018

1) Aptitude + program

Hard

2 programs optimized.

2) programs:

i) fibonacci series function which has two numbers first number is till what how many numbers you are supposed to find fibonacci series, second input number by which numbers in given fibonacci series should be divisible now find how many such divisible number exist.

: - function (int a, int b) => function (6, 2)

op: 0 1 1 2 3 5 (fibonacci series)

1 (numbers divisible by 2)

2) 2 arrays given join array alternately.

a₁ = (1, 2, 3, 5, 8, 9)

a₂ = (4, 6, 11, 12, 15)

op = (1, 4, 2, 6, 3, 11, 5, 12, 8, 15, 9)

Interview :

1st round:

1) tell me about yourself.

2) why from mechanical to it?

3) what are comfortable in C, C++, Java, database?

4) tell me about your project? what was your contribution?

5) can you do angular?

6) oops concepts (4 poles)?

7) explain each pole?

8) what do you understand by database?

9) what are types of joins? explain each?

10) tell me topics you learned in java?

Q.1] Tell me about yourself.

Q.2] Project Description — Draw Diagrams.

Q.3] IOC, DI, AOP

Q.4] Why spring \rightarrow @Component

Q.5] Annotations \rightarrow @Autowired, @Controller, @Entity

Q.6] If not annotations then what u have to write in web.xml?

Q.7] Write xml entry for DI [Setter injection, constructor injection.]

Q.8] What is your favourite subject in DAC?

Q.9] \hookrightarrow I said DS. What is DS and explain each with real-life examples.

Q.9] How you use DS in Java? \rightarrow Collection.

Q.10] Collection Hierarchy?

Q.11] Which are thread safe in collection?

Q.12] Explain HashMap

Q.13] Write C program for -

#

* * *

* * *

Q.14] OOP Pillars. \rightarrow Real life examples.

Q.15] String program was given and asked to find output, inheritance program was asked and find output.

Q.16] Write a query to find name of employee having salary greater than average salary of all the employees. (Write subquery in the where clause).

Q.17] What is javascript, jquery and angular JS.

Q.18] If you have mentioned any extra-curricular activities, make sure u

① First Round [Group Activity]

- ① You will be divided into groups! and will be asked to design an application i.e [Frontend, Middle-tier, Backend]
** Remember It's a group activity hence your contribution, team efforts, confidence concepts (everything will be checked)

② Second Round [TECHNICAL]

- ① OOPS → all pillars with example
② What is class?
③ What is static keyword? where can you apply static?
④ What is constructor?
⑤ What is thread?
⑥ What is collection API? Draw its hierarchy
⑦ Difference betⁿ array and ArrayList.
⑧ Difference betⁿ linkedlist and ArrayList.
⑨ Internal working of HashSet.
⑩ What is Hashmap?
⑪ Do you know Deep copy & shallow copy?
⑫ Abstract class v/s Interface.
⑬ Database Queries
a) Queries on Order by
b) Queries on group by
c) Find 2nd highest earning employee

AAT

III THIRD ROUND [TECHNICAL]

- ① Entirely on your project!
- ② If in dotnet, basic questions of dotnet
- ③ Flow/ Architecture of your project
- ④ Total no. of tables in your project
- ⑤ Mapping of your tables
- ⑥ Foreign key in your tables
- ⑦ Security mechanism in your project
- ⑧ [If Angular used], what is angular?
- ⑨ why have you used Angular (version)
- ⑩ Difference betn AngularJS and f
- ⑪ How will you dynamically load data from database in your pages?
- ⑫ Why angular and not any other technology?
- ⑬ What is JUnit? How do you debug any code?
- ⑭ How do save logs? What will you do?
- ⑮ Few codes were given on JAVA [collection]
- ⑯ If available, your proj. won't work or doesn't work with sanitized input
pushing no strings (a
put query no integers (a
returning a minus true) has been

IV. FOURTH [MANAGERIAL]

- ① Tell me about yourself
- ② Why our company?
- ③ He checked my marksheet and asked me about the subject in which I scored very low.
- ④ 2 Logical puzzles [Nidhi Mam's Puzzle Please do them!]
 - ① 2 eggs and floors question
 - ② Two ropes [30min], calculate 45 mins.
- ⑤ Asked about support: What will you do if we put you in support?
- ⑥ Will you be comfortable with shifts? [Just to check on you]
- ⑦ He gave me negative feedback stating you haven't performed well [Don't react just smile like Savita Mam had instructed]

PS: PLEASE SOLVE NIDHI MAM'S
MIND BENDER'S AND
LOGICAL PUZZLES!

Sandesh Jagtap

TIAA

- Q. OOPS Concepts.
- Q. Static & Final.
- Q. Exception Handling.
- Q. Final, Finally & Finalize.
- Q. What is Collection API.
- Q. Internal working of HashMaps.
- Q. Program to check whether string is Palindrome or not.
- Q. Program to count no. of occurrences of letter in a string.
- Q. Data structures.
- Q. Quick sort (Algo + code).
- Q. Insertion sort (Algo + code).
- Q. Why String is immutable?
- Q. What is ARM block? How it works?
- Q. From given String, check if string perfectly closed?
F.e. "(ab)(cd))(ef()"
- Q. $a/b = ?$, $a \% b = ?$
Write a code to find out the answer of above without using /, %, * operators.

Akash Sardale
TIAA

- 1) OOPS Concepts
- 2) details about String class
- 3) Collections (Mainly Maps)
- 4) Exception Handling (try .. catch with their valid Pairs)
- 5) Serialization
- 6) How to make class "Controller".
- 7) In J2EE, contents of Hibernate pom.xml
- 8) Hibernate with Spring FW.
- 9) Why we use Spring FW.
- 10) Code reading (guess the opp of code)
 - 1) Everything about project from UI to middleware & DB. (Just flow & working not coding)
 - 2) SQL Queries.
 - 3) puzzles (3 candle problem, measure 45 min)
 - 4) Tree Traversal
 - 5) Graphs & their use
 - 6) Multithreading
 - 7) Synchronization, its adv & dis adv.
Complexities of BST, array or any algorithm, they will tell u to calculate its time complexity
 - 8) Logical Programs (e.g. to calculate remainder & Quotient of a/b without using %, /, *, math functions)
(they just want to know ur approach)
 - 10) In DS particularly Trees
 - 11) REST API (why u use it)
 - 12) SOAP

Dhaani Negandhi

TIAA

Rounds:

- ① GD
- ② & ③ → Technical
- ④ → Managerial

* Whole round on nidhi mam's puzzles

* Logic question.

$$a \% b = ?$$

$$a / b = ?$$

Find ? → You cannot use

%, /, *. Write Logic.

9 balls problem
2 eggs, 100 floors
candles (3)
calculate 45 mins.
ropes (3)
calculate 45 mins

Technical questions.

• equals
= intern

- ① String questions (Basic)
- ② What is Normalization
- ③ What is database.
- ④ What is mongodb.
- ⑤ Why use services.
- ⑥ Describe project
- ⑦ Circular doubly linked list
- ⑧ What is stack, queue.
- ⑨ Red Black Trees concept
- ⑩ Quick Collection API
- ⑪ Why collections?
- ⑫ TIAA Architecture

Programs

⑥

* Pattern programs.

① QuickSort

② AVL Tree. (Rotations)

③ You have file abc.txt

Count occurrence of each word in file.

④ Given a string & a word find occurrence of ^{that} each word, at what index.

⑤ Thread t1 & t2 are given

Print 1 to 10 where t1 will only print odd nos & t2 will print even nos.

⑥ ~~TIAA~~

1st round (Technical Group Discussion)

- They gave us a chart paper & asked us to design Book my show application. (All the flow of application)

(You can add your extra features also if you want)

- In this round, they judged team efforts, knowledge, leadership skills, vocab (communications)

They asked about the technical aspects of the application created.

eg: Database Tables.

Front end to be used

Middle tier

How will you provide security.

1st Interview

① OOPs - pillars

② ~~ext~~ → overloading

overriding

- overriding rules

③ Core java

↳ all concepts

↳ basics of all concepts

↳ string class, equals-hashcode contract

collection api, list-arraylist-hashmap, etc.

serialization.

4) WAP of Palindrome

5) WAP of occurrences of character in a word.

for. eg. I/P = SUCCESS

O/P = S :- 3

U : 1

C : 2

E : 1

2nd round

- Although my project was in C#, they asked me to write some functionality in Java.

- Flow of Project.

- Your role

- More deep about serialization.

- Marker interface & functional interface.

- Some tricky questions about abstract class.

- In single traversal find the middle node of the singly linked list.

- You have to be clear with your project.

- DAO implementation (Using Spring hibernate).

They asked me to write that

- SQL connection using JDBC

Managerial Round :-

- 1) Asked me about Project
- 2) Asked me to write Iservice, Service & business Layer for a particular functionality from my project. (C# Rest service (WCF))
- 3) Puzzles from Mind benders.

QnD:-

1. Create a product like youtube.

Technical round - I.

1. Tell me about your self.
2. Which Subject you like? Why?
3. how much rating you give yourself on java
out of five?
4. Which database have you used. Why not Oracle.
5. Why use database?
6. Why not store in file.
7. Write a query for highest salary.
8. Write a query for second highest salary.
9. Insert elements on queue.
10. What are type of ~~data structure~~ linked list.
11. have you used AWS?

11.5) What is difference b/w REST & SOAP?

12. have you used Version Control?

what

13. have you used ~~an~~ for testing.

14. have you used it.

15. What is your project.

16. Draw its architecture

17. Given a Matrix of 3×3 , whenever
it is 1 in matrix ~~the~~ make their
row and Column 1

Ex:-
Input =
$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$
 Output =
$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 0 & 1 \\ 1 & 1 & 1 \end{bmatrix}$$

Round -2 Technical

① class A {

 Public void disp() { Sys("A disp"); }

~~Public static void print() { Sys("A static print"); }~~

 Public void foo() { Sys("A foo"); }

Class D extends A {

 Public void disp() { System.out.println("B disp"); }

 Protected void foo() { System.out.println("B disp"); }

 Public static void print() { System.out.println("B Print"); }

 Public void meth() { System.out.println("A meth"); }

}

A a = new B();
|

a.disp();
a.foo();
a.print();
a.meth();

Q. What is the output & why?

Q. If I remove print then what is the output?

Q. What is overloading.

Q. What is the access modifier rule for overriding.

Q. Employee e₁ = new Employee(1, "ABC");
Employee e₂ = new Employee(1, "ABC");

e₁ == e₂? why?
e₂ equals?.

Q. ~~ask~~ how to override equals to get them equals.

Q. Do we have to override hashCode() also if yes then why?

Q. Why are u using @Override annotation

Q. Draw Collection diagram.

Q. Do you know Concurrent hashmap.

Q. What is the difference between hashmap and concurrent hashmap.

Q. What is the difference between concurrent hashmap & hashTable.

Q. internal working of hashmap.

Q. internal working of hashset.

Q. In hashset does null value is allowed.

Q. What is fail fast & fail safe.

Q. Apart from ArrayList do you know any other fail safe class.

Q. What is Synchronized HashSet.

Q. Can we add null as a value in HashSet more than once.

Q. What is String pool where it is.

Q. WAP to find which no. has occurrence more than once.

HR - Round.

- ① Tell me about yourself.
- ② Tell me about your project.
- ③ How does it giving me profit or business.
- ④

Q. Tell me about your project.

Q. Employee / I write Controller method for it.

Q. What is @QueryParam?

Q. Which annotation have you used in your project for what.

Q. What is the difference between @Bean and @Component?

H2 - Round.

- Q. Tell me about yourself?
- Q. Tell me about your project?
- Q. How does it giving me profit or a business.
- Q. Write the table for your C/D product.
- Q. What will happen when a Content Creator will upload a video.
- Q. WAP to find whether a String is palindrome or not.
- Q. String class is immutable?

String s = " ABC";
s = " XYZ";
What will happen.

String s = " ABC";
s = " XYZ";
s = " ABC";
What will happen.



TIAA

GD

Create an Application, come up with idea to create YouTube App with additional features (45 mins)

Technical Interview

- o) ~~How~~ Tell me something about Yourself which is not in resume.
i) AWS Deployment ^{Q.1) How do you rate Yourself in Java?}
- 2) What is Virtual (In Terms of cloud)
- 3) Which is better physical Server or server on cloud.
- 4) Create a football application where we have 2 Teams

90 minutes

0-0 Score (Initially)
Update the score as per which teams score.

- 5) Football

Team	Manager	Rating
Real Madrid	Zidane	500
Liverpool	Klopp	300
Man UTD	Ole	100
Arsenal	Arteta	600

According to Rating Rank the Team (Database)

- 6) Do the same in Java
- 7) Did you use Maven?
- 8) What is Maven?
- 9) Web Services used
- 10) Diff between REST & SOAP
- 11) Given a string :-

"My Favourite Team is Real Madrid"

Output :- $M = 3$
 $y = 1$

Unique elements in this array

Director Interview

- 1) Tell me something about yourself
- 2) What has been your biggest challenge in life so far.
- 3) Why Computer Engineering
- 4) Why Java
- 5) Do you know Technologies? You know
- 6) Do you know any new Technologies in market.
- 7) What is Python
- 8) Why Python
- 9) What is Machine Learning
- 10) How do you achieve it, (ML)
- 11) What is A.I
- 12) Why COAS

- 14) what is Abstract class and a practical example of Abstract class.
- 15) Do you know SubQuery.
- 16) Do you know correlated SubQuery.
- 17) Why TIAA
- 18) What Do you Know about what TIAA Does.
- 19) Do a what Do you Know about Insurance.
- 20) what Do you Know about Retirement services.
- 21) Do you Know any other company who offers Retirement Services or Insurance Policies.