

INTERVIEW QUESTION

Interview No.1

STUDENT NAME = Arhum Savera || Company = Venture Dive || First Interview

Some questions from venture dive:

oop:

OOP pillars with real world examples and code

difference between abstraction and encapsulation

scenario:

suppose you want to make a system which will have a module which will parse certain files. how will you use oop to define different types of parsers for xml, rtf, word, json et. what will be their relationship and how will you use abstraction

FYP details

database:

what is/why normalization?

book table and author table. each book has many authors and one author writes many books. ERD diagram

database schema of file directory system (directory, subdirectory and contained files)

Programming:

from an array of size n and elements 1-100, get frequency of each number in $O(n)$

from an array of size n, get second largest in $O(n)$

IQ:

A,B,C,D want to get to the other side of a bridge.

the bridge is broken so max only 2 people can go at a time

they have one flashlight which needs to be used during crossing the bridge.

they take 1,2,5,8 minutes respectively

find the minimum time it would take to get them all across

example:

A,B go together with the flashlight. since B is slower, it takes 2 minutes for both to reach the other side, now one of them must go back so the others have the flashlight. if A goes back to C and D, it takes another 1 minute to go back so total 3 minutes have passed

Interview No.2

STUDENT NAME = Salman Edhi || COMPANY = Venture Dive || BY Lamak Bhai || First Interview

Kia chalra hai aj kal?

Fyp discussion

Bitwise operator wala jo sawal aya tha test main wo solve karaya.

Oop:

4 pillars

Aggregation composition difference

Diff b/w abstract class and interface. When to use which

Bank ki class main kia kia hona chye? Bana k dikhao

Db:

Different types of keys. Their difference

Bank table and department k table main kia relation hoga (1:m)

Bank and customers main kua relation(m:m)

How to resolve m:m problem? (Make a new table with their foreign keys)

Query: count of the number of customers in every bank

Diff between where and having

Data structures:

Data structures kon kon sy use kiye hain?

Diff between array and linked list.

Jis data structure ki baat hoti uska search and insert ka time.

Program: array of integers. Return true if any double occurrence is found otherwise return false.

Ab ye jo code kia hai isy dry run karo. Iski complexity batao(n^2)

Isko kaisy behtar karun. (Sort kardain)

Sort karny sy kua hojaegi complexity?

Sort ki apni bhi tou complexity hogi. Kia hogi. Konsa sort lagaogy.

Difference between insertion and selection sort.

Jin jin sorts ka naam lia unka best case worst case ki complexity.

Aur koi tareqa batao other then sorts. (Hashing) ab hashing ki kia complexity hogi. Insert and search time kia hoga

IQ: 2 jug hain ek main 5 litre paani askta hai ek main 3. Hamain exact 4 litre paani chye. No extra jug. Infinite number of times paani nikal saktay hain and daal saktay hain.

What is singleton?

Http ka idea hai? Kia hota hai.

2 methods hoty haij is k what are they? (Get and post)

Inka difference batao. Header maun kia hota hau and body main kia?

Post ko body main daal dun tou secure hogaya? (Nice. Encryption apply karo)

Kon karta hai ye encryption? (Https)

The end.

Interview No.3

STUDENT NAME = Ahsan Islam || Company = Venture Dive || By Baqar Bhai || First Interview

oop:

four pillars of oop with examples

difference between interface and abstract class.

what is static variable, static function, static class.

How to make static class in java (use keyword final before class name and make all functions static)

how will you implement diamond problem in java (Java doesn't allow multiple inheritance.)

value type and reference type.

java ka code dia aur uska output btana tha.

mutable and immutable objects

sari oop java specific pochi

DS:

java main kon kon se data structures use kiye hn.

collections kia hte hn in java

ArrayList in java

DB:

what is indexing advantages and disadvantages.

OS:

Threads, parallelism etc

Codes:

check whether a given string is palindrome or not.

count the number of occurrences of each character in a string.

Interview No.4

STUDENT NAME = Ahmad Rehman || COMPANY = Venture Dive || BY Lamak Bhai || First Interview

(Duration: 92 minutes)

Introduction

FYP stuff

Position

OOP:

-What is OOP?How it is different from other paradigms?

-Principles of OOP, pillars of OOP with real world examples.

-Gave a scenario and asked to apply appropriate type of polymorphism.

DS:

-what is your favorite data structure?

-where would you choose what data structure and why?

DB:

-normalization/denormalization(what, why and where)

-Normal forms(1st,2nd,3rd and BCNF)

-Gave a scenario and asked me to resolve the redundancies.

-how is M:N relations are translated in schema

DP:

-ever heard of design patterns?what are they?

-list the DPs you know of

-chose one from the list I provided and asked me to explain it.

Projects discussion (mentioned on my CV)

Web:

-Form submission methods(GET/POST). (what, difference, where to use what)

-server scripting languages(what, name any one)

IQ:

-that famous 5 and 3 liter buckets example

Questions(for me to ask him)

Good luck everyone.

Interview No.5

STUDENT NAME = Vikash Lal Dodani || COMPANY = Techlogix|| First Interview

Interview No.1 at techlogix

First they gave test of about 15 minutes.

Test included

4 show output question

2 SQL queries

3 programming question

Programming questions were

1- Find if a number is in power of 2

2- Reverse a string word by word

3- Implement class of linked list having insertion and deletion function

Interview:

-FYP in detail

-My role in FYP

-What are your plans for the next few months

Then coming to the test he just asked about the approaches I have use to solve the problem.

DB:

-There are two table student and course, what will be the relation between then (n:m)

- how will you solve this on implementation level (3 tables)
- how will you find out the no of students enrolled in a course (will apply group by query to the middle table)
- what are joins?
- what are different type of joins?
- what are views?
- how to update a view?
- can we apply a insert query on view?

IQ:

1)

If $\frac{1}{2}$ of 5 = 3

Then $\frac{1}{3}$ of 10 = ?

2)

Given a sequence what is the next term

1 , 11 , 21 , 1211 , 111221, 312211, 13112221

3)

If the clock is at 3:15 then what is the angle between the minutes needle and hour needle.

4)

Again if the clock is at 3:20 no what will be the answer.

5)

There are 2 roads, one is going in heaven and one is going to hell, and you have to go to heaven, now there are two man standing and you know that one will always lie and one will tell the truth, now you have only one question to ask to either of them without knowing that he is honest or liar, what will you ask a person to get to know which way is the heaven.

In last:

- What is my weakness?
- What is my strength ?

Thanks.

Interview No.6

STUDENT NAME = Arhum Savera || COMPANY = Techlogix || First Interview

Mentioning the things that were different from vikis interview, most of the questions were the same.

When do you prefer a denormalized database

What are the effects of indexes

When should you use views

Can a derived class access the private members of an abstract class

3 functions. Which of them is overloading, overriding and incorrect (easy if you know what they mean)

9 coins and one of them is uneven. 3 tries with a balance to find the uneven one

Interview No.7

STUDENT NAME = Abeeha Sattar || COMPANY = Techlogix || First Interview

Interview no. 1 at Techlogix:

After introduction, they asked me what programming language I was comfortable with.

- Then they asked me to describe an abstract class and interface.
- Differentiate between class and interface?
- Asked me to code them both and show their implementation.
- What if we make changes to the abstract class? Will it become an interface?

DB Questions:

- One author has written many books and a book can be written by authors. Draw its schema.
- Write a query for getting the count of books written by a specific author.
- Edit the same query to get the count of books written by every author
- Edit that query to get the authors who have written less than 50 books
- What is a view?
- Can you access data from a view?
- Can the data be updated from a view?
- What do you know about indexes?
- Why do we index things?

- Can we index some other value other than the primary keys? Why or why not?
- What is a composite key?
- If a table has two primary keys, what are those keys called?

Other questions were related to one of my course projects and FYP.

They didn't ask any logical questions for me.

Interview No.8

STUDENT NAME = Mohsin Ilyas Durrani || COMPANY = Techlogix || First Interview

Interview No. 1 at Techlogix

Duration 1 hour 30 mins

1. Introduction
2. Fyp ki details aur phr fyp ki erd banai
3. Stack implementation using array and link list aur phr as men search aur delete kr kay Dekhana tha
4. Employee ka schema tha Scott tiger wala as men 2 query chalcwai bs: 1. Find workers who are older than there Own manager 2. Employee table se employee dhundna tha jis ki salary ki limit dusray table men thi aur department Id kay equal krna tha jo third table men thi.
5. Phr Pocha apko kis field men jana hai aur phr 5 years men Apnay apko kahan dekhty hain yeh sb bs.

Interview No.9

STUDENT NAME = Hamza Bin Abid|| COMPANY = Techlogix || Second Interview

- Explain FYP in detail.
- Role in FYP.
- ERD of FYP.
- How can you extend your FYP?
- Why questions for FYP. (They took almost 35 min on FYP)

DB:

- Views and Uses.
- Insertion and deletion in views, is it possible.
- Indexing and Types.

- Impact of indexing on CRUD operations.
- Normalization and advantages.
- Denormalization and advantages.
- Two tables; Author and Book. what is the relationship between them? (m:n)
- How many tables will be there in total for this relationship? (3)
- Query to get name of authors who wrote at least 10 books.

Programming:

- Palindrome
- Check if number is power of 2; but this time using one or two inst DO NOT use while loop with modulus 2.
- Insertion and deletion in linked list.

OOP:

- Difference between, Function, Procedure and Package.
- Abstract class and interface.
- Can a derived class access the private members of an abstract class.
- Given 3 functions, which of them is overloading, overriding and incorrect.
- Can we make object object of abstract class?

Now in last they asked me to make an ERD of the scenario; and wo scenario mere FYP mai extension tha, apni marzi se they extended my FYP and asked me to make ERD for that and query likho.

Interview No.10

STUDENT NAME = Ali Raza || COMPANY = Venture Dive || Second Interview

VentureDive Interview by Tafseer ul islam siddique!

- Kia chal raha ha?
- Test check kia and galat mcq ka answer poocha
- Then yesterday stock walay sawal ki approach poochi (refer VD test paper)
- what is OOP?
- what is race condition?

- complexity of HashMap? (good and worse both)
- How $O(N)$ in worse case ? (for hashmap)
- what is collision?
- Anyone technique to resolve collision?
- How much you know Java?
- diff b/w static and non-static variable?
- Suggestions for me by him!
- Questions by me!

THE END!

Interview No.11

STUDENT NAME = Ahmad Rehman || COMPANY = Venture Dive || Second Interview

Interview no.2 at VentureDive conducted by Tafseer ul Islam

(Duration: 16 minutes)

What are you doing?

What is your position?(and CGPA)

What do you want to do in life?

Do you want to go abroad for a graduate degree?

Why should I hire you?

Test check kia and galat mcq ka answer poocha

Then yesterday stock walay sawal ki approach poochi (refer VD test paper)

Describe is OOPs?

Suggestions for me

Questions for him

Interview No.12

STUDENT NAME = Arhum Savera || COMPANY = Venture Dive || Second Interview

Venture dive interview 2: Mr. Tafseer

What is oop

What is polymorphism

What do you mean by high coupling and low cohesion

Why venture dive?

Where do you see yourself in ten years?

Bas.

Interview No.13

STUDENT NAME = Mohsin Illiyas Durrani || COMPANY = Techlogix || Second Interview

1. Introduction
2. Fyp kay baray men pocha.
3. Nodejs ka Pocha fyp se related.
4. Authors aur store ka m:n relation hai tou schema kasay banyga, aur phr pocha 3rd table kyn banyga kyn zaruri hai.
6. Views ka pocha aur askay advantage.
7. Normalization ka disadvantage.
8. Array aur link list ka difference.
9. Circular link list hai tou middle wala element kasay find kryngay code likho, phr while kay begair kr kay dekhao.
- IQ ka ek sawal.
10. 1 candle 60 min Leti hai burn honay men aur Meray pass 2 candle hain identical anko 45 min men burn krna hai.
11. Phr pocha agay kya krna chahtay ho.
12. Further studies ka pocha.
13. Strength aur weakness aur bs.

Interview No.14

STUDENT NAME = Paras Kumar || COMPANY = Venture Dive || First Interview

Venture Dive Interview-1 by Mr.Baqar

Some different questions apart from other interviews of VD !!

-What is synchronization ?

-Which is faster vector or arraylist? (Arraylist)

-FizzBuzz Programming Question

-Difference between string and stringbuilder ?

-Object of string is mutable or immutable? (Immutable) but still we change it how it does (It allocates memory again eg : str += "abc")

-When to prefer creating threads (when we have independency & enough resources)

-In employee table I have attribute depid but didn't make it the foreign key then what happens ?
(Data corrupt becuz you might delete department which has id 20 but that still exist in emp table).

Interview No.15

STUDENT NAME = Vikash Lal Dodani || COMPANY = Venture Dive || First Interview

Venture Dive Interview, Interviewer: Mr.Salman

First Introduce yourself.

Your expertise ?

Favorite Programming Language ?

OOP:

-Define OOP.

-What are Pillars of OOP?

-Define them briefly.

- Encapsulation kyun karte hai ?

- Absatraction or encapsulation me kya difference hai ?

-Define Inheritance.

-What is aggregation and composition ?

-Then he gave a scenario of, University-Students-Courses and asked what will be the aggregation and what will be the composition in this ?

-Then asked isko implement karke dikhao on paper.

-then asked different scenarios in OOP.

i) Parent P = new Child();

Child C = new Parent();

ye karen to kya hoga and uski waja

ii) Class Parent{

int x=1;

int y=2;

}

class xyz extends parent{

int x=3;

}

main(){

Parent p = new xyz();

print p.x;

print p.y;

}

Isme kya print hoga.

- Diamond problem kya hoti hai ?

- jo tumhe languages ati hai unme se kis kis language me ati hai ye problem.

- Java isko kese manage karta hai ?

- Interface kya hota hai ?

- Kese banta hai ?

- Static kya hota hai ?

- Access Modifiers kya hote hai?

- Define kro inhe?

Codes :

- Swap 2 variables without using temp?
- write a program to reserve the string.
- Find the frequency of each number occurring in the array. (I found the maximum and then created the array of that size, and then incremented that index when an element occurs of that number)
- what will be the complexity of this ?
- Any other good method of doing this ? (Hashmap)
- what will be its complexity ?

DB:

- What is primary key and foreign Key ?
- Difference Between Primary Key and Unique Key ?
- what are joins ?
- type of joins ?
- define them ?
- Define indexes ?
- how index works ?
- What algorithm is used in the indexes ?
- Ek scenario diya and bola iski ERD banao.

Scenario :

Companies Provide Services, and Customer can request for the services of companies.

- then he asked to write a query on that.

Har customer, har company ki kon si services use karta hai.

IQ:

- You have 8 balls and 1 ball is heavier, and 2 chances and a balance scale.
- Questions from me.

Thank you :)

Interview No.16

STUDENT NAME = Ali Amish || COMPANY = Venture Dive || First Interview

Venture Dive interview (Ahmed)

FYP

VD test rectangle overlap problem

string reverse word-wise

what is aspect oriented programming?

how cross-cutting concerns are resolved?

what is Spring?

what and how inversion of control is achieved?

explain working of ajax

difference b/w git and github ?

difference b/w library and framework. give examples

how angularJS is MVC?

explain functionality of opencart

what is singleton ? write code

write thread safe singleton ?

what is synchronise ?

difference b/w factory and abstract factory

explain AWS EC2

four pillars of OOP with real life examples

why do we use setter and getter ?

why do we use interface?

difference b/w abstract and interface

shallow copy VS deep copy

join query

when to denormalize

views (definition, advantages, disadvantages)

indexing (definition, advantages, disadvantages)

stored procedures VS functions

can foreign key be null ?

what is datastructure ?

Asymptotic Analysis

Array VS List VS ArrayList

what is boxing and unboxing

hashing (advantages, disadvantages)

complexity of BST and hashing

9 balls question

Interview No.17

STUDENT NAME = Khurram hashmi || COMPANY = Techlogix|| Second Interview

Techlogix Interview # 02. (Quite Different Interview)

Duration (1 hour)

1- Explain your self.

2- FYP (Only for my FYP partners)

(a) How stories are generated?

(b) What is LSTM?

(c) What is RNN?

(d) What's new about it?

At the same time he googled projects related to our FYP and Ask different things.

3- How many hours you give to your job and freelancing?

4- What is Moodle?

5- What is LMS? (Learning management System)

6- How many Process models you are aware of? Explain them.

7- How many roles are there in SCRUM?

8- Combination of Agile and Waterfall is better?

9- Google APIs regarding Reporting systems.

10- Why your CGPA is too low? grin emoticon

11- DATABASE (Duration 30 minutes)

(a) There are three tables student, books and categories?

Student and books have M:N Relation ship, Books and categories have 1 :M Relationship?

How Many total tables?

Write Query for finding the favorite category of student? (it depends on the count of books of same category he/she issues.)

Keeps making the scenario difficult and asking to write queries.

Normalize this then write query etc. etc.

12- (Brain Teaser)

Suppose you're in a hallway lined with 100 closed lockers.

You begin by opening every locker. Then you close every second locker. Then you go to every third locker and open it (if it's closed) or close it (if it's open). Let's call this action toggling a locker.

Continue toggling every nth locker on pass number n. After 100 passes, where you toggle only locker #100, how many lockers are open?

13- Do you read newspaper?

14- Which party have you voted for in the last elections?

15- Do you think there is some external force behind Mustafa Kamal?

16- Why CS?

17- Weakness and Strong points?

18- Your interests in which field?

19- Masters Plan?

20- Really intended to join Techlogix?

21- Any idea what we are doing?

Thats All.

Little advice: "When ever you are going to give 2nd or 3rd interview in any company, Do spend some time knowing about that company, it will be worth it."

Best of luck.

Interview No.18

STUDENT NAME = Madan Lal || COMPANY = FetchSky || First Interview

FetchSky Interview, Time 92 mins.

Interviewer: Han bhai, kese ho?

Me: Theeek.

Interviewer: FYP batao, discussed in detail

Interviewer: Briefly explain your other projects

Interviewer: Can we contact your clients to make sure that you have worked with them?

Me: Yes, sure.

Interviewer: Database kis ne parhaya tha?

Me: FARAZ IDREES *frown emoticon*

Interviewer: Oh, so you missed sir Rafi

Me: Yes in database.

Interviewer: I am FASTian of 08 batch.

Interviewer: How would you rate yourself in Programming, not specifically any language, general concepts?

ME: 8 out of 10.

Interviewer: Let's be technical

Interviewer: What do you know about code optimization?

Me: Explained with examples

Interviewer: You are given a String , find the unique characters?

Me: Wrote code

Interviewer: What's the complexity?

Me: $O(n^2)$

Interviewer: Optimize it.

Interviewer: Consider the code,

```
String a= new String("Hello");
```

```
String b="World";
```

```
a=a+b;
```

Is mein objects kitne banen g?

Interviewer: Assume you have a table which contains only two rows which are duplicate means contains the same elements, write a single SQL query that keeps the single row (PS: don't just get the data, Edit the table).

Interviewer: Ek Join ka sawal

Interviewer: What do you know about Semantic analysis?

Interviewer: What do you know about AWS EC2?

Interviewer: Describe a software development life cycle that you've managed?

Interviewer: When are you graduating?

Interviewer: Salary expectation?

Interviewer: Thanks, Madan!

Interview No.19

STUDENT NAME = Aazib Safi Patoli || COMPANY = Tezro Solutions || First Interview

Interview At Tezro Solutions.

- 1) how multiple inheritance work in Java ?
- 2) what tools do you used for java ?
- 3) what are values specification in Android ?
- 4) what is the role of gen file in eclipse ?
- 5) if you have done mistake in adroid layout and done alot of backend work. how will you manage to redesign it ?
- 6) which language you use in .Net?
- 7) server side scripting is more efficient or client side in .Net ?
- 8) concept of polymorphism.
- 9) copy constructor.
- 10) Abstraction in Smart Phone development.
- 11) views in MVC.
- 12) What is your aim to join this company?
- 13) Difference between sessions and cookies

- 14) What do you expect from company ?
- 15) Multithreading, mutex, semaphore working and difference
- 16) how will you convert up your website through PHP scripting by security threats.
- 17) define working of BFS and DFS and their analysis
- 18) Synchronization of processes
- 19) when are you getting graduate ?
- 20) Any Past Experience?
- 21) Anything you wanna Ask ?

Interview No.20

STUDENT NAME = Aazib Safi Patoli || COMPANY = TRG || First Interview

Interview At TRG.

- 1) easy ho ke beth jaen.
- 2) in which semestr you are?
- 3) what is your favorite subject?
- 4) tell us some famous algorithms related to your favorite course. (Data-Structure in my case)
- 5) how many projects have you developed ?
- 6) how you did X project ?
- 7) can i see that project online ?
- 8) what Techniques you used ?
- 9) how database was used on that project?
- 10) difference b/w Mysql and PLSQL?
- 11) what do you know about big Data?
- 12) what is hadoop and how it works?
- 13) encapsulation, abstraction inheritance
- 14) some IQ questions.
- 15) what do you know about data mining?
- 16) Basic of Normalizations.
- 17) do you have some creative ideas?

18) have you been intern somewhere ?

Interview No.21

STUDENT NAME = Vikash Lal Dodani || COMPANY = Venture Dive || Second Interview

VD 2nd interview (Tafseer bhai)

- Kya chal ra hai ?
- CGPA ?
- Apna Interest batao ?
- Masters Plan ?
- Why VD ?
- Why should I hire you ?
- What is OOP ?
- Why we focus on real world object ?
- What is polymorphism ?
- What is Big Data ?
- Draw A UML diagram of Animal Forest.
- Any question you want to ask.

THE END.

