My Interview Experience with ADP

Technology: JAVA J2EE

Experience: 5 Years

Company Name: ADP

My Email: ashok.javatraining@gmail.com

Facebook Group Name: Ashok IT School (https://www.facebook.com/groups/ashokITschool/)

First Round (System Test)

1) Write a Java Program to replace a charter with its occurrence in Given String?

> **Input: INDIA**
>
> **Replace Character: I**
>
> **Output: 1ND2A (Because I available in 2 places)**

2) Write a Java program to find occurrences of each character in a string

> **Input: Save water save earth**
>
> **Output: S - 2 Times**
>
> > **a - 4 Times**
> >
> > **v - 2 Times**
> >
> > **e - 4 Times**
> >
> > **w - 1 Times**
> >
> > **t - 2 Times**
> >
> > **r - 2 Times**
> >
> > **h - 1 Times**

3) Write a program to reverse Each word of a given String ?

> **Sample Input1: Reverse Me**
>
> **Sample Ouput1: esreveR eM**
>
> **Sample Input2: Hi How Are You?**
>
> **Sample Output2: iH woH erA uoY ?**

4) Write a SQL query to fetch duplicate records from a table

5) Write a SQL query to fetch common records between two tables.

6) Write a SQL query to get 3rd highest salary of the employee

Second Round (Technical)

Duration: 1 Hour 30 mins

Interviewer: Explain about yourself?

Me:

- I am having over all 5 years of experience in Java J2EE technologies. In these 5 years of time i have worked in analysis, design, development of both web based applications and Integration based applications.
- I have Good work experience in developing various applications using JAVA/J2EE technologies like Java, JDBC, Servlets, Jsps, Struts 1.x & 2.x, Spring IOC, Spring AOP, Spring MVC, Hibernate, Web Services, RESTful Services and Design Patterns.
- Experienced on UML designing, modeling, Use case diagrams, Flow diagrams and Sequence diagrams using Microsoft Visio and EA (Enterprise Architect)
- Experience with Software Development Processes & Models: Agile, Waterfall, & Spiral Models.
- Experience in developing User Interfaces using JSP, XML, HTML, CSS, JavaScript, JQuery and Angular JS
- Experience in creating Correspondence templates using HPExtream designer
- Experience in creating Templates, Pages, Sections, Flow charts in HPExtream designer
- Experience in using and implementing Design Patterns
- Experience in working with batches to perform business operations in bulk
- Excellent skills in developing Persistence layer to interact with the databases using JDBC and ORM Frameworks
- Having good work experience with Automation Testing using Selenium WebDriver
- Having good work experience with Performance Testing using JMETER tool
- Experience in dealing with both on-shore and offshore team mates

Interviewer: Explain your project Archicture?

Me: Explained about my project

Interviewer: What are your roles and responsibilities in your current project?

Me:

In My project requirements will be given by functional team. After receiving the requirements

- I will analyze the requirements and I will draft all my queries w.r.t requirements
- I will set up call with functional team for clarifications with Manager approval
- After getting all inputs from functional team , I will start Technical design document for the requirement and send the TDD for review to lead
- After getting approval for the TDD, I will start my development part
- Once development is completed I will do unit-testing and commit the code into repository server
- I will do integration testing with cross modules in project and prepares Dev integration testing checklist document and submit the testing results to my lead
- I will support for SIT and UAT phase to resolve the issues which are identified in SIT and UAT phase

Questions Asked From JSE

1. **Draw Exception Hierarchy Diagram on paper?**
1) **What is the difference between throw and throws?**
2) **What is user-defined exception and how to create user-defined exceptions?**
3) **Which catch block will be executed in below code? (Interviewer has written this code on paper and asked me this question)**

```java
class  Demo {
    pulic void m1( ){
        String s = null;
        try{
            System.out.println(s.length());
        }catch(Exception e){
            e.printStackTrace();
        }catch(NullPointerException npe(){
            npe.printStackTrace()
        }
    }
}
```

Ans: This is Compile time Error (Catch blocks Hierarchy should be subclass to parent class but in above code Exception catch block is first)

4) **What are the features added related to exception handling in java 7?**
5) **Write a program to check weather given String is palindrome or not?**
6) **Write a program to remove duplicate elements from the array?**
7) **What is Overloading and in which situation you have used Overloading in your project?**
8) **What Collections you have used in your project?**
9) **I want to search for elements from Collection, which collection class is recommended?**
10) **What are the differences between Iterator and ListIterator?**
11) **Can you create your own ArrayList class? Write the pseudo code?**
12) **What collection classes will default provide sorting order?**
13) **Below code is valid or not? If not why?**

TreeSet ts = new TreeSet ( );

ts.add(101);

t.add("Hi");

14) **Difference between HashMap and HashTable?**
15) **How HashMap works internally?**
16) **What is fail-fast and fail-safe collections?**
17) **What is Comparable and Comparator?**
18) **I have 10 students objects, can you write the code to sort them using student rank?**
19) **What is Enum? Create a Enum?**
20) **Write the code to create our own Annotation?**
21) **How to Make an Object Immutable in Java? Why Should You Make an Object Immutable?**
22) **How do you prevent SQL Injection in Java Code?**
23) **Can you write a program to create the Deadlock?**
24) **How does the substring () method inside String works?**
25) **What is difference between Executor.submit () and Executer.execute () methods?**
26) **Why we need to override hashCode () and equals ()? What is the contract between them?**
27) **Give the simplest way to find out the time a method takes for execution without using any profiling tool?**
28) **What is the difference between Runnable and Callable in Java?**
29) **How Garbage collector works internally and which algorithm it follows?**

30) What is Thread Local variable in Java?

31) What is FutureTask?

32) There are three threads T1, T2, and T3? How do you ensure sequence T1, T2, T3 in Java?

33) What is the difference between the volatile and atomic variable in Java?

34) What happens if a thread throws an Exception inside synchronized block?

35) Write code for creating Singleton class?

36) What is variable argument?

37) Can you write the code to read data from Properties file?

38) I have some patient's details in Excel file. Write the code to read Excel file?

39) I want to allow ppl to create only 3 objects for my class. How to prevent when anybody tries to create 4th object of my class?

40) What are the new features in java?

Questions Asked From Hibernate:

1) Tell me some Interface names which you have used in your project from Hibernate?

2) Write the Hibernate Configuration file?

3) How to map a class to table using annotations? Write on Paper?

4) What is a Dialect class?

5) How to work with Composite-Primary key using Annotations?

6) What are ID generators available?

7) What the differences are between save and persist methods?

8) Write the code to create Custom ID generator? (It should generate emp_id as ADP01, ADP02 and ADP03)

9) What is first level and second level cache in Hibernate?

10) What is SessionFactory?

11) How to create SessionFactory in Hibernate 4 and 5?

12) Write a HQL query to retrieve all employees whose salary is >=100000?

13) What is Table per sub class?

14) How many tables are there in your project?

15) I have 5000 tables in Database, how to write Entity classes quickly?

16) How to Configure Connection pooling in Hibernate?

Questions Asked From Spring:

1) What is Dependency Injection?

2) What are the differences between Setter Injection and Constructor Injection?

3) Why to use ApplicationContext over BeanFactory?

4) When the Bean object will be created?

5) Tell me some attributes of <bean /> tag?

6) What is Bean Autowiring?

7) How to resolve conflict in byType mode?

8) What are the limitations with auto wiring?

9) What is BeanPostProcessor?

10) Explain when we should go for lookup method injection?

11) What is Bean aliasing?

12) What's the difference between @Component, @Controller, @Repository & @Service annotations in spring?

13) Explain Spring MVC Archicture?

14) How many IOC containers created in your project?

15) Describe WebApplicationContext?

16) What is the purpose of ContextLoaderListener?

17) How Dispatcher Servlet will identify the Controller?

18) What do you understand by @RequestMapping annotation?

19) What is the purpose @Request Body and @Response Body annotations?

20) How do you integrate spring with Hibernate?

21) How Spring Boot is different from spring?

Questions Asked From Webservices & Restful Services

1) Have you ever used Webservices in your Project?

2) What type of Webservices you have used?

3) You developed Webservice or you consumed WebService?

4) Do you know how to generate the wsdl in browser?

5) Explain what is WSDL and its elements?

6) Can you write a Binding class?

7) What are the differences between one time and runtime operations?

8) Write XSD for the below xml?

```xml
<?xml version="1.0" encoding="UTF-8"?>
<INVENTORY>
      <ITEM>
            <ID>3956</ID>
            <DESCRIPTION>widget</DESCRIPTION>
            <QUANTITY>108</QUANTITY>
      </ITEM>
      <ITEM>
            <ID>5783</ID>
            <DESCRIPTION>gadget</DESCRIPTION>
            <QUANTITY>32</QUANTITY>
      </ITEM>
      <ITEM>
            <ID>6583</ID>
            <DESCRIPTION>sprocket</DESCRIPTION>
            <QUANTITY>7</QUANTITY>
      </ITEM>
</INVENTORY>
```

9) How you will validate XML content against XSD using java program?

10) Tell me some annotations in JAX-WS API?

11) How you will test the Webservices?

12) What are the differences between SOAP and REST?

13) Tell me REST architecture principles?

14) Difference between @PathParam and @QueryParam?

15) What are Content Handlers in Rest?

16) How many ways we can bootstrap the Rest application?

17) What is Exception Mapper?

18) What is @Produces? What are the possible values for this annotation?

19) How to generate the WADL?

20) Can you Rest Resource to perform CURD operations?

Questions Asked In Third Round (Project Manager)

Duration: 1 hour

1. Hey Ashok, Could you please explain your Project
2. What are your roles and Responsibilities in your Project?
3. Is this (Company Name) your first company?
4. Why you are looking for change?
5. Can you write the code to serialize an Object?
6. What is Externalization?
7. Write the code to solve consumer and producer problem?
8. What are Design patterns you have used in your project? Who implemented them?
9. What are the design patterns you have implemented in current project?
10. What are the differences between Factory and Abstract Factory design patterns?
11. How do you estimate the task?
12. Have you ever involved in code review? How you will do that?
13. Two ppl are trying to commit the code at same time... how to handle that situation?
14. How you will do Unit Testing?
15. What is Mockito?
16. Have you ever used Multi-threading? In which scenario?
17. Tell me how you will resolve dead lock situation?
18. Tell me some exceptions you have faced in your project?
19. What is the complex logic you have written your project?
20. Do you have any idea about cache mechanism?
21. How you will communicate with your client?
22. What is the Sprint duration in your project?
23. In Sprint duration how much time for Development and how much time for Testing?
24. Do you have any exposure on Build and Deployment process?
25. Client gave one requirement ideally it will take one week of time to complete but your lead asked you to complete within 4 days only , how you will manage ?
26. What other technologies you know apart from Java?
27. Do you have any questions for me?

I have asked below Questions

1. I heard that ADP will run payrolls for many companies. Is it true?
2. What are the other domains ADP will deal with?
3. I see lot of crowd outside, I think ADP has huge requirement, any new Project getting started in ADP?
4. May I know about new project which is getting started?
5. What are the technologies chosen for new Project?
6. Thankyou..! By the way, May I know your Name? (He Smiled and Replied ... This is Anish)

Me: Thanks Anish, Nice to talk with you..!!

Interviewer: Alright Ashok, Please wait outside, Asha (HR) will get back to you...

After 5 mins, I and Aasha had HR discussion and Package discussion....

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