

ok.

And don't comments. Just prepare

Today's CTS interview question

Technical Round:-

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*Core-java

1 .Tell me the internal flow of Set implementation class with one example

ans:-Set Internally use Map so it doesn't allow duplicate

Map<Set<Obj>,String> m=new HashMap<>();

so whatever object u passed in set.add() method it will place in Map as a key as per above.

2 . In HashMap if hashing collision occure then how to resolve it.

ans:-Hashing collision means if in collection if multiple object having same hashCode() then it will definatly placed in same bucket

so to resolve this one we need to override equals() method it will check content wise if object are content wise same then override the value.else just place in same bucket

3 . can we add duplicate in set and map if yes why write one code

ans: yes, we can add if u don't override equals() and hashCode() then duplicate will be allow in set and map also coz there is no element for comparing thats the reason duplicate are allow..

```
class Employee{
    int id;
    String name;
    public Employee(int id,String name){
        this.id=id;
        this.name=name;
    }
    @Override
    //toString() method here
    public static void main(String[] args){
        Set<Employee> s=new Set<>();
        s.add(new Employee(10,"Basant"));
        s.add(new Employee(10,"Basant"));
        sop(s);
    }
}
```

4 . Read data from file find the duplicate word and count them and sort them in desending order

```
public class ReadFileAndCount {
```

```
Map<String, Integer> wordMap = null;
String line = null;
```

```
public Map<String, Integer> counter(String fileName) throws IOException {
    wordMap = new HashMap<String, Integer>();
    try (BufferedReader br = new BufferedReader(new FileReader(new File(
        fileName)))) {

        while ((line = br.readLine()) != null) {
            String[] data = line.split(" ");
            for (String word : data) {
                if (wordMap.containsKey(word)) {
                    wordMap.put(word, (wordMap.get(word) + 1));
                } else {
                    wordMap.put(word, 1);
                }
            }
        }

    }

    return wordMap;
}
```

```
public List<Entry<String, Integer>> sortByValue(Map<String, Integer> wordMap) {
    // convert map to set
    Set<Entry<String, Integer>> mapSet = wordMap.entrySet();
    // add set to list
    List<Entry<String, Integer>> mapList = new ArrayList<>(mapSet);
    // use utility method
    Collections.sort(mapList, new Comparator<Map.Entry<String, Integer>>() {

        @Override
        public int compare(Entry<String, Integer> o1,
            Entry<String, Integer> o2) {
            return o2.getValue().compareTo(o1.getValue());
        }
    });

    return mapList;
}
```

```
public static void main(String[] args) throws IOException {
```

```

ReadFileAndCount rfc = new ReadFileAndCount();

Map<String, Integer> value = rfc.counter("info.txt");

List<Entry<String, Integer>> data = rfc.sortByValue(value);

for (Map.Entry<String, Integer> getData : data) {
    sop(getData.getKey() + "=>" + getData.getValue());
}
}
}

```

5 . where to use Comparable and where to use Comparator did you ever used in ur project
ans: actually we are not using that interface in our project to sorting data..but i have idea on it
that we have to use Comparable if u want
to sort the object in collection in simple sorting order like assending or desending if u want
custom sorting then better to choose
Comparator.

6 . what is bubble sort can you write one programme. .?

```

public class ArraySort {
    public static void main(String[] args) {
        int[] arr = new int[] { 6, 8, 7, 4, 312, 78, 54, 9, 12, 100, 89, 74 };

        for (int i = 0; i < arr.length; i++) {
            for (int j = i + 1; j < arr.length; j++) {
                int tmp = 0;
                if (arr[i] > arr[j]) {
                    tmp = arr[i];
                    arr[i] = arr[j];
                    arr[j] = tmp;
                }
            }
            System.out.print(arr[i] + ",");
        }
    }
}

```

7 . can I write try block single means without using try-catch or try-finally

ans: yes we can write .in java 1.7 there is one features try-with-resources by which ur resource
stream will be closed automatically

8 . what is Executor framework

ans:Executor Framework is introduced in Concurrent package normally if we want use thread pool to achieve reusability then we have to choose this one

9 . how many way we can create thread and which one best approach and why

ans:There are 4 way

- 1 . extends Thread
- 2 . implements Runnable
3. implements Cloneable
- 4 . using AnonymousThread

Preferable is 3rd one coz if you implements from Callable then see below

```
class MyThread implements Callable {
```

```
    public Object call () {  
        return obj;  
    }  
}
```

Here after execution my thread return something based on requirements u have to choose

2 nd approach also good

In both cases we can achieve fully abstraction and runtime polymorphism and multiple inheritance so 2 nd 3 r best approach

10 . jdk version u r using in ur project and why (be care on that question coz they indirectly ask u the advantages of version or latest features added in New version)

We are using jdk 7

Then tell all the advantages

Like 1 . try with resources

2 . multi catch Exp Handler

3 . String Switch case

4 . Diamond Operator

6 . simple way to declare long variable

*Jdbc:-

1 . difference between Statement and PreparedStatement

ans:Statement are use if we want to pass static query or hardcoded value if we want to pass positional parameter/Runtime value

then better to use PreparedStatement and in Simple Statement there may be a chance to get SQL Injection which we can be

Resolved by PreparedStatement

2.they give one db schema and ask me to retrieve data from DB by passing id

table:-

=====

id	name
101	Basant
104	Santosh

```
final String SQL_QRY_FOR_GET_NAME_BY_ID="SELECT NAME FROM EMPLOYEE
WHERE ID=?";
1.class.forName()
2.Connection con=DriverManager.getConnection();
3.PreparedStatement ps=con.prepareStatement(SQL_QRY_FOR_GET_NAME_BY_ID);
4.ps.setParameter(1,101)
5.ResultSet rs=ps.executeQuery();
6.Itterate
```

*Spring :-

1.What is RowMapper when we have to use it write sample code not completely just give sm hints with flow?

ans:See basically if we want to iterate complete entity from db then we have to use RowMapper which are
Provided by Spring-Framework by which it can easily featch the data from db and it follow call back
Mechanisim so it gives us Resultse as method parameter that we can simple get the data by RS

2.what is ResultSet Extractor where exactly we have to use ?

ans: ResultSetExtractor is used if we want to iterate data from db with some specific range or partial ,ya i used it in my
project for pagination by assuming display pageNo and size as per SRC

3.if in my Spring bean configuration file I configure same bean with same id 2 times then what is the problem and how to resolve it (contender)

ans:we have to use one atribute in Spring-beans configuration file actualy i am not able to remebere that word
properly coz we are using eclips id so but it like something Contender ...

4 . Spring Mvc Flow as per your Project

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To make webapp

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??1 .First From browser u forward request to servlet (Dispatcher Servlet) to handel it..

??2.Dispatcher Servlet here act as a controller. Who only manage the request processing. ..so it

rcv the request and then forward request to HandlerMapping

??3. Handler mapping is framework provide class.. Normally in mvc there r several controller Bean so HandlerMapping helps to search appropriate controller Bean based on request url to perform business operation

??4. and 5 After finding controller Bean it process some operation and return MAV object ..to Dispatcher Servlet

M:-model

A:-and

V:-view

??6 . Now after processing business operation response will be generated and it should be display on browser otherwise how enduser know about response. ..so to find appropriate view representer.. Dispatcher Servlet call again ViewResolver. .which helps to find appropriate jsp to display view

??7 . Then Dispatcher Servlet render data nd call that jsp which is identify by ViewResolver to view response on browser. ..

??8. Finally Response will be receive by End user. ..

5.Spring transaction, why nd how to work on it

ans: we are using Annotation Approach

@Transactional(read-only="false",isolation="Read-Commit",propagation="Required")

6. How u handle Exception in ur Project just give some brief idea on it with annotation

ans: ya to handle the exception we are creating separate Controller class annotatted with

@AdviceController and here we are

writting one method by passing the exception as parameter and annotated with method

@ExceptionHandler then from my controller

i have to pass same logical name which i already return from my adviceController class

*Webservices :-

1 . WSDL ,what are the elements and just explain the role of each section verbally

ans:

WSDL(Web service Description Language) actually it act as contract betwwen provider and consumer and basically contain 5 section 1)Defination 2)types 3)Message 4)PortType 5)Binding 6)Service

Defination:-it act as a root element in XML it just specify the name

types:-it talks about each indivisual required input and output to my webservice method

message:-it talks about exactly what my web-service method takes a parameter in single unit

portType:-it talks about exact structure of your SEI(Service endPoint Interface)

Binding: talks about what is the protocol it used and which Message Exchanging format it follows

service: it talks about address

2.what is Rest,

ans: Rest is a new architectural style of develop the webservice or we can say this one is the easiest way to our

complex business logic over the network with distributed technology with interoperable manner

3 . difference between Soap and Rest ?

ans:Both are used to develop webservises only but the basic difference

1.In soap based web-service we need to depend on Soap protocol it act as a transport protocol who support only Xml for transfer

but in rest it is support not xml it supports XML,JSON,PLAIN_TEXT also

2.Sopa development is complicated in comparison Rest coz we need to depend on Multiple 3rd party vendor

and procedure is vary from one implementation to another implementation

3.Sopa is not Message-Representation-Oriented but rest is M-R-O

4.for security and transaction Soap is Preferable..

4.Write one Resource method using Http method Post

5.which Response u provide to presentation layer and how to bind Json Response ?

ans: We are providing JSON Response and it will bind through Angular js in UI.

6.Difference between @QueryParam and @PathParam which one best and where to use. ..

ans: QueryParam is not mandatory to pass but if u want data is mandatory then PathParam is Best