1.What is SQL injection,how to resolve the same in java?

SQL injection is one of the top 10 web application .SQL injection means injection/inserting SQL code in a query i.e user-input data. It can occur in any applications using relational database like Oracle,MySQL,PostgreSQL and SQL server.There are 4 types of SQL injections:

1.Boolean Based SQL Injection 2.Union based 3.Time-based 4.Error based

Resolve:To resolve the SQL injection, we can use PreparedStatement instead of Statement to execute the query.For example,Instead of concatenating username and password into the query, we provide them to query via PreparedStatement’s setter methods.

2.What is the exception hierarchy?

The class at the top of the exception class hierarchy is the Throwable class, which is a direct subclass of the Object class. Throwable has two direct subclasses 1.Exception 2.Error.

Exception:The Exception class is used for exception conditions that the application may need to handle.

Examples of exceptions: IllegalArgumentException, ClassNotFoundException and NullPointerException.

\*\*Exceptions are further subdivided into Checked (compile-time) and Unchecked (run-time) exceptions. All subclasses of RuntimeException are unchecked exceptions, whereas all subclasses of Exception besides RuntimeException are checked exceptions.

Checked Exceptions:

public void writeToFile() {

try (BufferedWriter bw = new BufferedWriter(new FileWriter("myFile.txt"))) {

bw.write("brezza");

} catch (IOException ioe) {

ioe.printStackTrace();

}

}

Unchecked Exception:ArthimaticException.

class div(){

public ststic void main(String[] args){

int a =10;

int b=0;

int c=a/b;

system.out.print("div"+c)}

}

3.how will you decide to choose between interface and abstract?

Firstly,Interface means its like a class.An interface can have methods and variables,but the methods declared in an interface are by default abstract.It is the blueprint of class.It provides a qualified Templete.There is no constructor in interface.We IMPLEMENT interface.

Secondly,Abstract,It is a method which is declared as abstract and does not have implementation.For example:-Take a bike,bike is an abstract class that cotains only one abstract method run().Its implementation is provided by the honda class.Here we use ABSTRACT keyword which makes the whole as abstract method.

4.what is the difference between == and equals?

Generally, both equals() and “==” operator in Java are used to compare objects to check equality.but some differences between these two are:

\*The main diference between .equals() and == is that,one is a method and another one is the operator.

\*We can use == operator for reference comparision or address comparision and .equals()method is for content comparision.

\*The ==operator checks if both objects point to the same memory location. and .equals() evaluates to the comparision of values in the objects.

Example:public class example{

public static void main(Strings[] args){ o/p:

String x="Samsung"; true

String y="Samsung"; false

String z=new String("Samsung"); true

System.out.println(x==y); true

System.out.println(x==z);

System.out.println(x.equals(y));

System.out.println(x.equals(y));

}

}

5.What is the difference between throw and throws?

Throw:

\*Java throw keyword is used throw an exception explicitly in the code, inside the function or the block of code.

\*Using throw keyword, we can only propagate unchecked exception, the checked exception cannot be propagated using throw only.

\*The throw keyword is followed by an instance of Exception to be thrown.

\*Throw is used within the method.

Example:public class Throw {

public static void checkNum(int num) {

if (num < 1) {

throw new ArithmeticException("\nNumber is negative, cannot calculate square");

}

else {

System.out.println("Square of " + num + " is " + (num\*num));

}

}

public static void main(String[] args) {

Throw obj = new TestThrow();

obj.checkNum(-3);

System.out.println("Rest of the code..");

}

}

Throws:

\*Java throws keyword is used in the method signature to declare an exception which might be thrown by the function while the execution of the code.

\*Using throws keyword, we can declare both checked and unchecked exceptions. However, the throws keyword can be used to propagate checked exceptions only.

\*The throws keyword is followed by class names of Exceptions to be thrown.

\*Throws is used with the method signature.

\*We can declare multiple exceptions using throws keyword that can be thrown by the method. For example, main() throws IOException, SQLException.

Example:public class Throws {

public static int divideNum(int m, int n) throws ArithmeticException {

int div = m / n;

return div;

}

public static void main(String[] args) {

Throws obj = new Throws();

try {

System.out.println(obj.divideNum(45, 0));

}

catch (ArithmeticException e){

System.out.println("\nNumber cannot be divided by 0");

}

System.out.println("Rest of the code..");

}

}

6.What is the use of toString method?

A toString() is an in-built method in Java that returns the value given to it in string format. Hence, any object that this method is applied on, will then be returned as a string object.

7.What is immutable in java?

Immutable objects are instances whose state doesn't change after it has been initialized. For example, String is an immutable class and once instantiated its value never changes.

8.What fails fast in collections mean,how can we resolve it?

9.What is the benefit of string tokenizer?

The string tokenizer class allows an application to break a string into tokens. The tokenization method is much simpler than the one used by the StreamTokenizer class. The StringTokenizer methods do not distinguish among identifiers, numbers, and quoted strings, nor do they recognize and skip comments.

10.How are String,StringBuffer and StringBulider different from each other?

\*The String class is an immutable class whereas StringBuffer and StringBuilder classes are mutable.

\*StringBuffer is synchronized i.e. thread safe. It is used in multi-threaded environment. StringBuilder is non-synchronized that means it is not thread safe.Stringbuilder is used in single threaded environment.Whereas in string ,it is not used in a thread environment.

\*We can directly pass the String class object to StringBuffer and StringBuilder class constructors.

\*In case of Storage,String is stored in stringpool,for stringBuffer in heap and for stringBuilder in heap.

\* The performance of string is slow,Whereas stringbuffer is slower than stringbuilder but faster than string.Stringbuilder is faster than Stringbuffer.

String: Example:String var =“Samsung”;

String var=new String(“Samsung”);

StringBuffer: Example: StringBuffer var = new StringBuffer("Samsung");

StringBuilder: Example: StringBuilder var = new StringBuilder("Samsung");