What is Exception and types of Exception?

An exception is an error event that can happen during the execution of a program and distributes its normal flow. 1) Checked exception 2) Unchecked exception.

**Unchecked Exception (runtime exception)**

1)**Arithmetic Exception** -Any number divide by zero

2)**Null Point Exception**- It occurs when a variable is accessed which is not pointing to any object and refers to nothing or null.

3)**Input Mismatch Exception** – The exception can occur when the input is invalid for the expected type.

4)**Index Out of Bound Exception** – It occurs when an attempt is made to access the character of a string at an index which is either negative or greater than the length of the string.

5) **Array Index Out of Bound Exception** – It occurs when a program attempts to access an invalid index in an array i.e., an index that is less than 0, or equal to or greater than the length of the array.

6) **String Index Out of Bound Exception** - It occurs when an attempt is made to access the character of a string at an index which is either negative or greater than the length of the string.

7)**Number Format Exception** – It occurs when an attempt is made to convert a string with an incorrect format to a numeric value.

**Checked exception (Compile time exception)**

1)**File not found exception** – Signals that an attempt to open file denoted by a specified pathname has failed. I fix a try-catch block should use to handle it.

2)**IO file exception** – An exception that is thrown when an I/O error occurs.

3)**Class not found exception** – It occurs when the JVM tries to load a particular class but does not find it in the class path.

4)**SQL exception** – An exception that provides information on a database access error or other errors.

Difference between checked exception and unchecked exception?

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| --- | --- |
| Checked exception | Unchecked exception |
| Something that has gone wrong in your code and is potentially recoverable. | Something that has gone wrong with the program and is unrecoverable. |
| It handles by a try-catch block. | Unchecked is not required to be handled. |

What are the differences between throw and throws?

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| Throw | Throws |
| The **throw** keyword is used inside a function. | The **throws** keyword is used in the function signature. |
| The **throw** keyword is used to throw an exception explicitly. | The **throws** keyword can be used to declare multiple exceptions, separated by a comma. |
| It can throw only one exception at a time. | Whichever exception occurs, if matched with the declared ones, is thrown automatically then. |

What are the differences between exception and error?

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| Error | Exception |
| The error indicates trouble that primarily occurs due to the scarcity of system resources. | The exceptions are the issues that can appear at runtime and compile time. |
| It is not possible to recover from an error. | It is possible to recover from an exception. |
| In java, all the errors are unchecked. | In java, the exceptions can be both checked and unchecked. |
| They are described in the java. Lang. Error package. | They are described in java. lang. Exception package. |

What are the differences between final finally and finalize in java?

Final is a keyword and is used as a access modifier in java.

Finally is the block in java exception handling to execute the important code whether the exception occurs or not.

Finalize is the method in java which is used to perform clean up processing just before object is destroyed.

What are the differences between HashMap and Hash table?

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| --- | --- |
| HashMap | Hash table |
| Asynchronized-Allow users parallelly. | Synchronize- Allow users one by one. |
| Key allow 1 null and value n null. | Ignore key and value |
| Non-thread safe | Thread safe. |

What are the differences between Find element and Find elements?

**Find element**- A command to uniquely identify a web element with in a web page.

**Find elements**- A command to identify a list of web elements with in a web page.

What are the differences between Selenium web driver and Selenium Remote control (Rc)?

Selenium WebDriver performs faster than Selenium RC because it interacts directly with the browser without using any external proxy server.

Selenium RC uses an intermediate RC Server to communicate with the browser.

What are the differences between Get text and Get Attribute?

Get text- Returns the inner text of a Web Element.

Get attribute- The methods gets the value of a given HTML attribute.