**ASSIGNMENT 5**

1.Predefined Functions in Collections?

* addAll() - It is used to adds all of the specified elements to the specified collection.
* asLifoQueue() - It returns a view of a Deque as a Last-in-first-out (LIFO) Queue.
* binarySearch() - It searches the list for the specified object and returns their position in a sorted list.
* checkedCollection() - It is used to returns a dynamically typesafe view of the specified collection.
* checkedList() - It is used to returns a dynamically typesafe view of the specified list.
* checkedMap() - It is used to returns a dynamically typesafe view of the specified map.
* fill() - It is used to replace all of the elements of the specified list with the specified elements.
* frequency() - It is used to get the number of elements in the specified collection equal to the specified object.
* emptySortedSet() - It is used to get the sorted set that has no elements.
* checkedQueue() - It is used to returns a dynamically typesafe view of the specified queue.
* copy() - It is used to copy all the elements from one list into another list.
* disjoint() - It returns true if the two specified collections have no elements in common.

2. Underlying ds for linked list and arraylist?

Both ArrayList and LinkedList are two different implementations of the List interface.

3. Advantages and disadvantages of array list?

Some advantages of arraylist are: -

* You can define ArrayList as re-sizable array. Size of the ArrayList is not fixed. ArrayList can grow and shrink dynamically.
* Elements can be inserted at or deleted from a particular position.
* ArrayList class has many methods to manipulate the stored objects.
* If generics are not used, ArrayList can hold any type of objects.
* You can traverse an ArrayList in both the directions – forward and backward using ListIterator.
* ArrayList can hold multiple null elements.
* ArrayList can hold duplicate elements.

Some disadvantages are: -

* A possible disadvantage of ArrayList is that it holds only object types and not primitive types (eg, int ). To use a primitive type in an ArrayList, put it inside an object or use of the wrapper classes (eg, Integer, Double, Character.).

4. what are iterator and cursors in java?

Iterator is an interface available in Collection framework in java. util package. It is a Java Cursor used to iterate a collection of objects. It is used to traverse a collection object element one by one.

5. What are list Iterator, Enumerator?

* ListIterator is one of the four java cursors. It is a java iterator which is used to traverse all types of lists including ArrayList, Vector, LinkedList, Stack etc.
* The enumeration () is a method of Java Collections class which is used to get the enumeration over the specified collection.

6.What are the 10 OWASP?

1. Injection. A code injection occurs when invalid data is sent by an attacker into a web application. The attacker’s intent in doing so is to make the application do something it was not designed to do.
2. Broken Authentication. Certain applications are often improperly implemented. Specifically, functions related to authentication and session management, when implemented incorrectly, allow attackers to compromise passwords, keywords, and sessions. This can lead to stolen user identity and moreii.
3. Sensitive Data Exposure. Sensitive data exposure is when important stored or transmitted data (such as social security numbers) is compromised.
4. XML External Entities (XXE). Attackers are able to take advantage of web applications that use vulnerable component processing XML’s. Attackers are able to upload XML or include hostile commands or content within an XML document.
5. Broken Access Control. Broken access control is when an attacker is able to get access to user accounts. The attacker is able to operate as the user or as an administrator in the system.
6. Security Misconfiguration. Security misconfigurations are when design or configuration weaknesses result from a configuration error or shortcoming.
7. Cross-Site Scripting (XSS). XSS attacks occur when an application includes untrusted data on a webpage. Attackers inject client-side scripts into this webpage.
8. Insecure Deserialization. Insecure Deserialization is a vulnerability where deserialization flaws allow an attacker to remotely execute code in the system.
9. Using Components With Known Vulnerabilities. This vulnerability’s title states its nature; it describes when applications are built and run using components that contain known vulnerabilities.
10. Insufficient Logging And Monitoring. Logging and monitoring are activities that should be performed to a website frequently, to guarantee it is secure. Failure to adequately log and monitor a site leaves it vulnerable to more severe compromising activities.

7. can catch be return without try in java?

We can't have catch or finally clause without a try statement.

8. can try be return catch in java?

Yes, we can have try without catch block by using finally block. You can use try with finally.

9. can finally be return without try catch in java?

You cannot have a catch or finally without a try block.

10. Difference b/w comparable and comparator in java?

* Comparable provides a single sorting sequence whereas The Comparator provides multiple sorting sequences.
* Comparable affects the original class whereas Comparator doesn't affect the original class.
* Comparable provides compareTo() method to sort elements whereas Comparator provides compare() method to sort elements.
* Comparable is present in java.lang package whereas A Comparator is present in the java.util package.
* We can sort the list elements of Comparable type by Collections.sort(List) method whereas We can sort the list elements of Comparator type by Collections.sort(List, Comparator) method.