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assignment # 2:

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| **VECTOR:**  1-we can increase the size of vector but this waste the memory as every time when we enlarge the memory size then it will be doubled of the previous one  2-Vector is thread safe.  3- Not prefered now a days | **ARRAY LIST:**  1-we can increase the size of arraylist but this does not waste the memory . It becomes enlarge with the addition of data.  2- Array List is not thread safe.  3- preferred now a days |
| **HashSet:**  **HashSet** uses a **hash**-table | **SortedSet:**  while**SortedSet** uses a red-back tree which is a balanced binary tree. |
| **HashSet :**  **HashSet** is faster than **TreeSet**and should be preferred choice if sorting of element is not required. ... **HashSet** doesn't guaranteed any order | **TreeSet:**  while **TreeSet** maintains objects in Sorted order defined by either Comparable or Comparator method in Java. |
| **Array:**  The **difference between lists** and **arrays** is that **arrays** can do $**array**[1] . he biggest **difference** is in the idea of direct access in array. | **list** :  A **list** is a different kind of data structure from an **array**. sequential access is in list ... And, the elements don't need to be allocated next to each other in the memory like an **array** is. |
| **List**  **:**  **1-List** is an Ordered Collection   2-**List** maintains insertion order of elements, means any element which is inserted before will go on lower index than any element which is inserted after. ...  3- Popular implementation of **List** interface in **Java** includes ArrayList, Vector and LinkedList. | **Set** :  1- **Set** is an unordered Collection.  2- no duplicates are allowed in set. |
| **NavigableMap**:  The **java**.util.**NavigableMap** interface is a subtype of the **java**.util.SortedMap interface. It has a few extensions to the SortedSet which makes it possible to navigate the map. | **NavigableSet :**  **NavigableSet** interface can navigate the set in reverse order compared to the order defined in SortedSet. |