Collections Framework [40 - 45% Interview Question]
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* It is a data structure of java, The main purpose of data structure to **store** the data in an efficient way so we should have very **good time complexity**.

* In collections framwork **we will deal OR work with Objects.**

* Here we can work with two types of Objects :

  1) Single OR Individual Object (We can use Collection interface)
  2) Group Of Objects (We can use Map interface)

* Collection is a predefined interface in java.util package from JDK 1.2V is used to work with single OR Individual Object.

```
Example :
----------
        Collection coll = new Vector();
        coll.add("ravi@gmail.com");
        coll.add("rahul@gmail.com");
        coll.add("raj@gmail.com");
```

* Map is a predefined interface available in java.util package from JDK 1.2V is used to work with Group of objects in the form of key and value pair.

```
Example :
----------
        Map map = new Hashtable();
        map.put("ravi@gmail.com", "ravi12345");
        map.put("raj@gmail.com", "raj12345");
```

* The entire collections framework is implemented by java.util package. It is data structure of java so we can perform all different types of operation like searching, sorting, insertion, deletion and so on.

JDK 1.0V Story :
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* In JDK 1.0V, java wanted to store the Objects. In order to store the Object java has provided a predefined class called Vector available in java.util package.

```
Example :
----------
      Vector vector = new Vector();
       vector.add(new String("Java"));
       vector.add(new StringBuffer("HTML"));
       vector.add(new StringBuilder("CSS"));
       vector.add(new Integer(100));
```

* In the same version, Email applications were becoming very popular, Java wanted to store these email applications using collection so first choice was Vector.

```
Vector user = new Vector();
user.add("ravi@gmail.com");
user.add("rahul@gmail.com");
user.add("raj@gmail.com");

Vector pwd = new Vector();
pwd.add("ravi12345");
pwd.add("rahul*&^%$");
pwd.add("raj^^*^*");

user.remove("ravi@gmail.com");
```

Error Log : THERE IS NO MAPPING BETWEEN ONE VECTOR COLLECTION TO ANOTHER VECTOR

* They started searching another option to store email applications, They introduced another class called Dictionary<K,V> which is an abstract class from JDK 1.0V, In order to extend this class they have provided another class Hashtable<K,V> which is sub class of Dictionary<K,V>

IQ :

*** What are the legacy classes in java ?
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* All the classes and interfaces which was introduced before JDK 1.2V that means before Collection interface are called Legacy classes and interfaces.

Single Object	Group Of Objects	Interface
Vector	Dictionary<K,V>	Enumeration
⇩	⇩	[For retrieval of Collection Object]
Stack	Hashtable<K,V>	
	⇩	
	Properties	