1)what is

Collection is a group of objects.

Collection is a container object it is used for storing multiple homogeneous and hetrogeneous,

unique and duplicate objects without size limitation.

2)Different ways to store values?

1.using variable --->can store only one value

2.using class object --->can store multiple fixed number of values of different type.

Ex:

Employee{

int eno;

String ename;

}

Emp e1=new Emp(eno,ename);--->accept only two value

3.using array object --->can store multiple fixed number of values of same type.

Ex:

int[]a=new int[5];

4.using collection --->can store multiple objects with same and different type without any size limitation.

Element -->object which is stored inside collection

Entry -->(key,value)if we store element with value both to gether.

homogeneous -->same type of objects.

hetrogeneous-->different type objects.

unique -->

Duplicate -->

collection of objects--->which stores individual objects.

Collection of collections-->A collection object that contains other multiple collections.

Collection of maps--->which stores entrys(key value pairs).

LoadFactor---->

problems with array object solutio0n using collection?

1.Type problem-->means it can store only same trype of objects.

Student[] s= new Student[5];--->it will allow only student objects.

Employee[] e= new Employee[5];-->It will allow only Empl;oyee objects.

If we try to store Student in Employee array and Employee in Student array it will throw compile time error.

To solve this type problem we need to create a class person and make Student and Emplolyee Classes are sub classes of person class.

Person[] p= new Person[5];

p[0]=new Student();

p[1]=new Employee();

Now this person Array will allow both the subclass objects Student and Employee.

what if we want to store lion or tiger objects to this Person array?

p[2]= new Lion();-->No, it will not allow

Now, again we will get this type problem. To solve this problem we have to take parent class of all these classess i.e.., object class.

Object[] obj= new Object[5];

obj[0]=new Student();

obj[1]=new Employee();

obj[2].new Lion();

Now, it will allow all the objects we won't get this type problem.

2.size problem-->Arrays allow only specified size.

3.storing order problem-->Arrays allows only insertion order and allow us to retrieve randomly.

4.operations problem-->Arrays does not contain any inbuilt methods to perform sorting,searching etc.., operations.

Q).Different operations performed on collection object::

1.Adding object

2.Counting object we can perform these 5 operations with SET, LIST, MAP, QUEUE.

3.Searching object

4.Retrieving object

5.Removing object

6.Replacing object

7.Inserting object 2 operations we can perform with LIST only