Topic: Collections.

1 Create an ArrayList of Item(itemCode,itemName,price,stock),and perform the following:

i Add an item to the list

ii Delete an item from the list

iii Display all items in the list

iv Display all items that are out of stock

Write an interactive menu driven program to test the above.
(hint: create classes Store ,Item and Client class)
Use appropriate class relationships.

2 Write a java program to create user accounts.Use a suitable collection to store username and password.The application reads username and password from the user,creates an account and gives the message only if the username is not existing ,otherwise gives an error message.
Use a Map

3 Write an application to store Employee objects that are sorted in a suitable collection based on the salaries.
empCode,empName,empSalary are the employee details.

Write an implementation to print the details

4 Create a new type of container that uses a private ArrayList to hold the objects. Using a class reference, capture the type of the first object you put in it, and then allow the user to insert objects of only that type from then on.

Provide display of messages at appropriate stages in your program.

5 Design classes and interface as required .

Create a class Container that stores objects and has various methods like.

A addElement(int n) --- that adds an element.
Element can be added in two ways FIFO and LIFO. So this method has two implementations which can be defined in separate child classes.(Queue and Stack)

B removeElement() -- removes the first element.

C removeElement(int index) -- removes element from the given index.

Use Arrays to store elements.
Facilitate it to accept any number of elements ie.array should be resizable.

The application should be quite extensible, so that later on a new implementation like storing elements in a sorted order has to be plugged,it should be possible without affecting the client code.
Create a client program to test these methods based on the user's choice.

6 Create a container class (HashMap) to store key-value pairs , Where Employee object will be the key and salary will be the value.

A put(Employee e,double salary) --- that adds the pairs.

B get(Employee e1) -- display the salary of the object e1.

The HashMap should be able to add only unique keys ie a certain employee object can exist inside the container only once.