**Exercise** 1

1. Create a class named “**Chair”**.

It includes fields: code (int), price (int), weight (int).

And some methods: constructors, getters, setters.

And output method to return the formatted string: “code-price-weight”

1. Create a class “ChairList” to manage all “Chair” objects.

It includes fields: Chair[] arr, int count

And some methods:

* Constructors
* void Add() : user inputs information of the object in this method and then add this object into arr
* void Add(Chair x): to add x (known object) into arr
* void display(int min\_weight, int max\_weight): to display all objects that objects have weight between min\_weight and max\_weight.
* A main method to call all above methods.

Ex2:

1. Create a class Book

It includes fields: code (String), Title (String), publisher (String), type (String)

And some methods: constructors, getters, setters

1. Create a class BookList to store all books in an array and some methods:

* Void Add (Book x): add object x to the array
* Void Update(String code): to update information of the book by its code
* Book Find(String code): to return the book by it code
* Book Delete(String code): to delete the book by its code and return this book
* Void sort(): to sort ascending order the array by type field
* A main method: to display a menu:

1. Add a book
2. Update a book
3. Find a book
4. Delete a book
5. Sort list of books

Ex3:

1. Create a class called “Kitchen”. It includes: String code, String style ( classic, victoria, Chic, Modern ), int width, int length, String warehouse, int price
2. Create a class KitchenManage to store list of Kitchens in the array

* Fields: Kitchen [] arr, int n
* Some methods:

1. int add(Kitchen k): return 1 if the program adds the object k to the arr successfully, else return 0
2. int getPosByCode(String code): return the position of the kitchen by its code.
3. Kitchen getKitchenByCode(String code) : return the kitchen by its code
4. void getKitchensBySize(int size) : get all kitchens, the size of these kitchens are greater than the parameter size (size= width x length)
5. void getKitchensByStyle(String style): get all kitchens by style parameter
6. int getTotalMoney(String style): return total money of all kitchens by style parameter
7. void display(): display list of kitchens

Ex4

1. Create a class called “Employee”.

It includes instance variables: code (int), name(String),basicSalary(int), experience(int);

And some methods: constructors, getters,setters, output method to display details of the employee object (code, name,salary,experience) .

*Hint: Salary=basicSalary+ bonus.*

*Bonus=100 if experience=10;*

*Bonus=80 if experience=5;*

*Else Bonus=10*

1. Create a class named “EmpManager”.

It has some instance variables: Employee[] arr, int count

And some methods:

* Default constructor: allocate memory for arr to contain 100 items
* boolean Add(): this method adds the employee object into arr. If the program adds successfully (hint:count<100) then return true, else return false.
* void displayAll(): to display details of employees
* and main method to call above methods