



Lab 6

Furnitures using Array Lists

Object-oriented Programming

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Sample Program Output

Press a to add furniture
Press s to show all furnitures
Press q quit program

> a
Enter furniture name: chair
Enter furniture price: 150
Enter designer's name: ikea
Furniture added: [chair, 150, designer=ikea]

Press a to add furniture
Press s to show all furnitures
Press q quit program

> a
Enter furniture name: desk
Enter furniture price: 780
Enter designer's name: crate and barrel
Furniture added: [desk, 780, designer=crate and barrel]

Press a to add furniture
Press s to show all furnitures
Press q quit program

> a
Enter furniture name: TV
Enter furniture price: 3400
Enter designer's name: Samsung
Furniture added: [TV, 3400, designer=Samsung]

Press a to add furniture
Press s to show all furnitures
Press q quit program

> s
List of furnitures:
[chair, 150, designer=ikea]
[desk, 780, designer=crate and barrel]
[TV, 3400, designer=Samsung]

Press a to add furniture
Press s to show all furnitures
Press q quit program
> q

How to store all furnitures?

- Store all furnitures entered by the user in an array list:
ArrayList<Furniture> furnitureList = new ArrayList<>();
- You can use **add()** method to add a furniture to the array list.
 - For example `students.add(s)` adds student `s` to the array list `students`.
- You can print array list's contents using for-each loop
- Sample for-each loop for students:
for (Student s : students) // students is an array list, or an array
System.out.println(s)



Furniture and Person Classes

FURNITURE

- FurnitureName : String

- price : Int

- designer : Person.

Furniture()

setter methods

getter methods

+ toString(): String

PERSON

- name : String

Person(name : String)

+ toString(): String

Sample Main Code

```
public class AppFurniture {
    public static void main(String[] args) {

        ArrayList<Furniture> furnitureList = new ArrayList<>();
        while (user continues to add new furniture) {
            System.out.println("Press a to add furniture");
            System.out.println("Press s to show all furnitures");
            System.out.println("Press q quit program");
            System.out.print("> ");
            if (user input is q)
            { // exit }
            if (user input is a)
            { // get furniture details from the user and add to the array list }
            if (user input is s)
            { // Show all array list contents using for-each loop }
        } // while loop ends
    } // main
} // App
```