

LAB EXAM 10

Section 2

Apr. 26, 2016

In this lab exam, you are going to write a program that maintains an ArrayList of players for a game program.

In this game, the players are stores by their name and score. First, write a class, called Player, to model a player. Next, write a class, called Game, which maintains the players in an ArrayList of players. The players will be ordered by their scores in decreasing order.

The Game class will have a menu driven interface that allows the user to add, search, remove and list the users.

The Game class should implement the following methods:

- insert, that inserts a new player.
- search, that returns the position of a player whose name is given. It returns -1 if no player by this named is seen.
- remove, that removes a player, whose position in the ArrayList is given. It should validate the position given.
- list, that lists the players in the ArrayList.

In Lab 10, you can use your submitted codes for Lab 8, but DO NOT USE ARRAYS, just use ARRAYLISTS.

Sample Run:

User entries are in red.

What do you want to do?

- A) Add a new player
- S) Search for a player
- R) Remove a player
- L) List all players
- E) Exit

Your choice: A

Enter the name and the score of the new player: Volkan 150

What do you want to do?

- A) Add a new player
- S) Search for a player
- R) Remove a player

L) List all players

E) Exit

Your choice: **A**

Enter the name and the score of the new player: **Hakan 87**

What do you want to do?

A) Add a new player

S) Search for a player

R) Remove a player

L) List all players

E) Exit

Your choice: **A**

Enter the name and the score of the new player: **Kaan 126**

What do you want to do?

A) Add a new player

S) Search for a player

R) Remove a player

L) List all players

E) Exit

Your choice: **A**

Enter the name and the score of the new player: **Atakan 245**

What do you want to do?

A) Add a new player

S) Search for a player

R) Remove a player

L) List all players

E) Exit

Your choice: **L**

[Atakan(245), Volkan(150), Kaan(126), Hakan(87)]

What do you want to do?

A) Add a new player

S) Search for a player

R) Remove a player

L) List all players

E) Exit

Your choice: **S**

Enter the name of the player: **Volkan**

Volkan appears in position 1

What do you want to do?

A) Add a new player

S) Search for a player

R) Remove a player

L) List all players

E) Exit

Your choice: **R**

Enter the position of the player to be removed: 5
To remove a player, the position must be between 0 and 3

What do you want to do?

- A) Add a new player
- S) Search for a player
- R) Remove a player
- L) List all players
- E) Exit

Your choice: R

Enter the position of the player to be removed: 2

What do you want to do?

- A) Add a new player
- S) Search for a player
- R) Remove a player
- L) List all players
- E) Exit

Your choice: L

[Atakan(245), Volkan(150), Hakan(87)]

What do you want to do?

- A) Add a new player
- S) Search for a player
- R) Remove a player
- L) List all players
- E) Exit

Your choice: E

Note that this is an exam. You are not allowed to communicate with any person other than your teaching assistant. Those who do not obey this rule will be subject to disciplinary investigation. You can use only the features (techniques, classes, methods and statements) that are covered in the class.

After finishing your work, select your folder (e.g. Lab10), then right click and select "Send to" option. Click "Compressed (zipped) folder". Rename your zip file as "Lab10_Surname_Name". Note that, your file type is "zip", namely your file name will not be "Lab10_Surname_Name.zip". Upload your zip file to Unilica. Note that you must upload your file before 16:40; you cannot upload your file after that time.