

Java Object-Oriented Concepts Unit

Lesson 7 Lab 4: Baseball League

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The Learning House

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Lesson 7 Lab 4: Baseball League

Objective:

The objective of this lab is to continue your practice in dividing programs into multiple encapsulated classes and to use Maps and Collections to store more complicated forms of data.

Requirements:

In this lab you will build a program to manage a Baseball League. The program must:

1. Allow the user to create new Teams
2. Allow the user to create new Players (the new Player must be associated with a Team)
3. Allow the user to list all the Teams in the league.
4. Allow the user to list all the Players on a Team.
5. Allow the user to trade a Player from one Team to another.
6. Allow the user to delete a Player.
7. All data must be stored in one or more files. This data will be read in from the file(s) at program startup and written back to the file(s) at program shutdown.

Process:

1. Model your classes. What classes will you have? How will you represent a Team? How will you represent a Player? How will you represent the League? How will you store information in memory — Maps? Lists? Something else?
2. Design the format of your file(s). How will you store Team, Player, and League information?
3. Create a plan for how you will develop the program. Where will you start? Which classes will be implemented first? How will you test each step?
4. Discuss design and project plan with instructor.
5. Implement plan.

Before coding, you must create a flowchart and class diagram (in Dia) for your program.

Please show the diagrams to the instructor before coding.