

Lab Week 3 – Introduction to Classes and Objects 9/9/2024

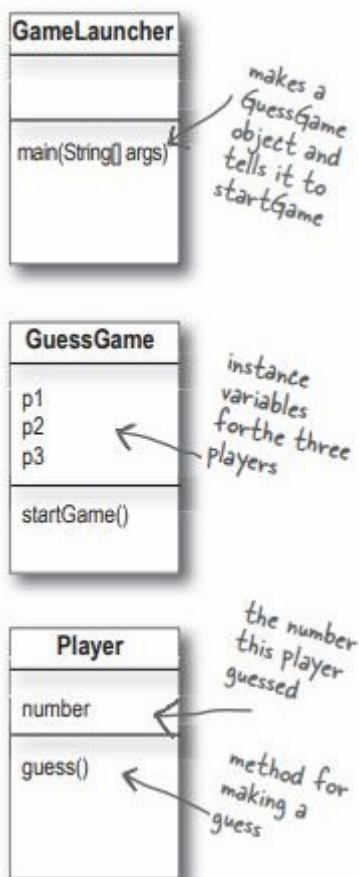
1. A Java class is used to represent elements from the periodic table of elements. The details to be captured include atomic number, name of the element, chemical symbol, class, and atomic weight.

e.g. 11 Sodium Na alkali metal 22.9898

a. Now store the details of three different elements.

b. You can have a method to display the details of all three elements as well as a method that displays details of all elements with an atomic weight >15.

2. Write a Java program to simulate a guessing game. The game involves a game object and three player objects. The game generates a random number between 0 and 9, and the three player objects try to guess the number.



You must then announce the result about which player/players was/were successful in guessing the correct number.

Note: There are multiple ways to generate random numbers. One method is

`int targetNumber = (int) (Math.random() * 10);` This generates one random number in the range from 0-9. You could of course generate numbers in the range from 0-100 but then the probability of guessing the right number would drop.