

Programming II

Exercises 9: Exercises

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Classes and Objects

Exercise 1. Write a function that counts the numbers of apples in the warehouse. Do the same for pears.

Exercise 2. Add a method to the class warehouse, that deletes a basket at position i .

Exercise 3. Add a method to the class warehouse that returns the basket with the most fruit in it.

Exercise 4. Add a method to the class warehouse that returns a pair consisting of two lists of baskets, one where there are strictly more apples and the other one where there are strictly more pears.

Exercise 5. Declare a class exam_exercise with the following properties:

- variables: total_points, points (a student got), difficulty (1 – 3)
- methods get for each instance variable
- methods set for points and difficulty
- method to_string that prints all the information of the exam_exercise

then declare a class exam with the following properties:

- variables: exam_name, exam_time, exercises (storing a list of exercises)
- methods to set exam name and time
- methods that get exam name, time and a list of exercises
- method that returns a list of exercises of a given difficulty
- method that calculates the total number of points on the exam
- method that calculates the grade with percentages (50 – 59: 6, 60 – 69: 7, 70 – 79: 8, 80 – 89: 9, 90 – 100: 10 and 0 otherwise).

Then create an exam with at least 5 exam exercises and print the information of all the exercises on the exam.