Instructions:

1. The following task is composed of a few parts.
2. Each part contains one or more Java questions and may contain additional theoretical questions.
3. Each part must be completed before moving on to the next part.
4. **Do not look at later parts before completing the current one you are in.**
5. After each part is completed send me the project and the answers to the rest of the part’s questions (if such exists).
6. Use the same project for each part; I expect it to change its content as you move forward through the parts.
7. Please follow all the coding standards you are familiar with.
8. Test your code using a Main method or JUnit tests and keep it in the project you are sending for each part.
9. You can use the internet throughout this task.

Good Luck

Part 1

1. A Person has:
   1. Age
   2. First Name
   3. Last Name
   4. Height
   5. Weight

Write a class that represents a Person.

1. Given I have more than 1 person I would like to have the ability to filter through them only for those who answer the following condition:
   1. Person’s age > 30

Part 2

1. Given I have more than 1 person I would like to have the ability to filter through them only for those who answer the following condition:
   1. Person’s age < X (where X may be a number between 0-120)

Part 3

1. Given I have more than 1 person I would like to have the ability to filter through them only for those who answer the following condition:
   1. Person’s first name contains the latter L (where L is a letter from A-Z)
2. How do you feel so far? Is there anything that you feel uncomfortable with? What is it?

Part 4

1. For part 1-3 you most likely wrote for each functionality some kind of a loop where the difference between them should have been the condition.

Isolate the condition from looping over the collection of persons.

You should be able to use the same function to loop over the collection of persons with different condition.

Part 5

1. A Dog has:
   1. Age
   2. Name
   3. Breed
   4. Weight (in kg)

Write a class that represents a Dog.

1. Given I have more than 1 Dog I would like to have the ability to filter through them only for those who answer the following condition:
   1. Dog’s age > 7

Part 6

1. Given I have more than 1 Dog I would like to have the ability to filter through them only for those who answer the following condition:
   1. Dog’s weight > X (where X is a number between 0-100) in kg.

Part 7

1. Given I have more than 1 Dog I would like to have the ability to filter through them only for those who answer the following condition:
   1. Dog’s breed equals to X (where X is a String such as “Boxer”).
2. How do you feel so far? Is there anything that you feel uncomfortable with? What is it?

Part 8

1. For part 5-7 you most likely wrote for each functionality some kind of a loop where the difference between them should have been the condition.

Isolate the condition from looping over the collection of Dogs.

You should be able to use the same function to loop over the collection of **Dogs & Persons** with different condition. (each time you call the function you will either use Dogs **or** Persons – you will not have a mix colletion).

1. How do you feel about this task?
2. In your opinion, what did I try to demonstrate with this task?