

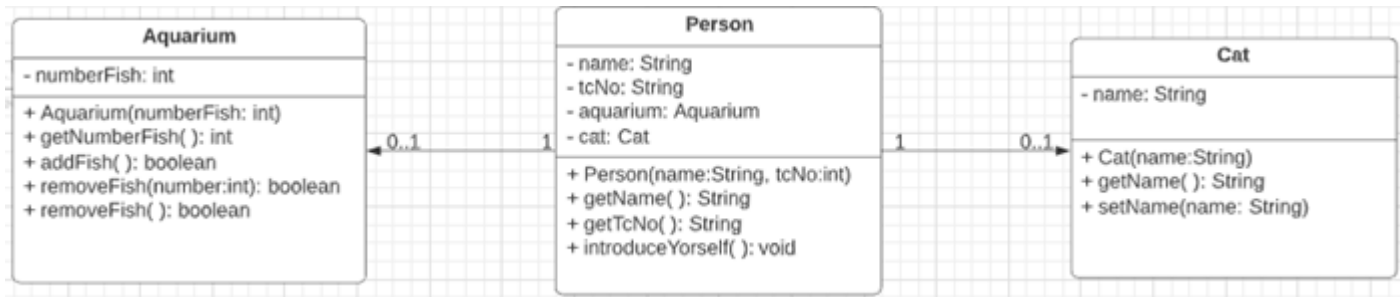
MAT 335E Programming Algorithms

Lab-5 / CRN : 10611

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1 Question 1



- Write a java source code of class Cat.
- Write a java source code of class Aquarium.
 - `addFish()`: it adds a fish to the aquarium
 - `removeFish(int)`: it removes fish as the given number from aquarium.
 - `removeFish()`: it removes a fish from the aquarium.
- Write a java source code of class Person.
 - `introduceYourself()`: When he/she introduces himself/herself, he/she tells his/her name and then gives information about his/her pets. **Note that some getter and setter methods may be missing in class Person.**
- In main method:
 - Create a Person and a Cat objects.
 - Associate person with cat.
 - Call `introduceYourself()` method of person.

2 Question 2

Write a static method that reads the positive numbers until a sentinel value is entered and then calculates and returns the harmonic average of those numbers.

Let a_1, a_2, \dots, a_k be the positive numbers. Harmonic average of those numbers are:

$$H(a_1, a_2, \dots, a_k) = \frac{k}{\frac{1}{a_1} + \dots + \frac{1}{a_k}}.$$