

Gebze Institute of Technology
Department of Computer Engineering
CSE 241/CSE501
Object Oriented Programming
Fall 2013
Homework # 8
Your First Java Program
Due date Dec 25th 2013 by 23:59

Design and implement a Java class for a person. The class should keep information about the person such as

- Name and last name (using String)
- Year of birth (such as 1988)
- Sex (male or female)
- toString method

Design and implement a class for family. A family is a group of people with a mother person, a father person, and zero or more children persons. This class should include

- A constructor takes two Persons, one for mother (female), one for father (male). Throw an exception if there is an error in the parameters.
- Getter methods for getting mother, father, and children.
- A method that returns the number of families created so far
- A method for comparing two families (returns true if two families are equal)
- Method at() that returns the child at the given index. Do the validity check on the child index.
- Method add() that takes a Person as parameter. This operator adds the Person as a child to the family.

Use arrays and dynamic memory allocation. Use your namespace.

Write a static Family method that takes two Persons and an array of Families. Your method returns true if one of the persons is a relative of the other by searching the family array list.

Write the driver code for your two classes for testing.

Notes:

- You should strictly follow the homework submission details and email your homework to the TA.
- Your program should be well commented and indented.
- There will be total of 3 files in your submission (Person, Family, and Driver main). Please send a text file showing your results.