The Florida Department of Children and Families need a new program to track information about families they are dealing with. They have already written the main method (which you may not change) and placed it in <u>UseFamily.java</u>. You'll see that for each family they need information about:

- The number of people
- The names and ages of the members
- The total age

Additionally, they need to be able to:

- Add people to a family
- Track age increments by specifying that it's someone's birthday
- Print out the information about the family members

Write two instantiable classes that will allow the main method to work:

- A Person class that contains:
  - Instance variables to store the name and age of a person
  - A default constructor, and a constructor that takes a name and age to initialize the instance variables.
  - A tostring method to return a string representation of the person, formatted ala "Fred is 32 years old".
  - A mutator method to increment the age of the person
  - An accessor method to return the name the person
  - An accessor method to return the age the person

<u>UsePerson.java</u> can be used to test your Person class.

- A Family class that contains:
  - Instance variables to store the information about the people (maximally 10 people per family)
  - A default constructor that intializes the instance variables to a family of 0 people
  - An IO method to display the family
  - A mutator method to add a person to the family (returning false if there's no more space in the family)
  - A mutator method that makes the necessary changes for a birthday
  - An accessor method to return the number of people
  - An accessor method to return the total age of the people

Here's what a sample run should look like (with the keyboard input shown in italics) ...

Enter name of next person: Fred
How old is that person: 32
Enter name of next person: Wilma
How old is that person: 27
Enter name of next person: Pebbles
How old is that person: 4
Enter name of next person: Barney
How old is that person: 8
Enter name of next person: 8

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There are 4 people in the family, with a total age of 71 Fred is 32 years old Wilma is 27 years old Pebbles is 4 years old Barney is 8 years old Whos birthday is it? : Wilma There are 4 people in the family, with a total age of 72 Fred is 32 years old Wilma is 28 years old Pebbles is 4 years old Barney is 8 years old

## You must ...

- Write the Person class (1.0%)
- Write the Family class (2.0%)

## **Answer**

- Person.java
- Family.java

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