

Lab 07: Creating Persons and Validating Person Data

This lab pulls together all concepts covered to-date except for arrays.

1. Create a class called Person with the following properties:

Property	Data Type
id	int
firstName	String
middleName	String
lastName	String
email	String
ssn	String
birthdate	Date

- The Person class should have getters and setters for all properties other than id. (Use Eclipse to help you auto-generate these.)
 - Person class should also have a getter for id
 - In addition to these getters and setters, Person should have the following instance methods:
 - getFullName – returns full name, like "Edgar Allen Poe"
 - getEmailDomain – returns the domain portion of an email (after the @), as in "gmail.com"
 - getLast4SSN – returns the last four digits of the Social Security Number
 - Person should have class (static) methods to validate birthdate, email and ssn as best you can.
2. Create a driver program PersonApp to test the class
 - Use JOptionPane to message the user and collect all user input.
 - Prompt user for all properties except id. (You can hardcode any id you like.)
 - Accept any value for the name fields
 - Only accept valid values for birthdate, email and ssn
 - Create a person with the valid input
 - To the console, output the following:
 - The person's full name
 - The person's email domain
 - The last 4 digits of the person's Social Security Number
 - The person's birthdate
 - The day of the week (e.g., Friday) on which the person's birthday falls in the current year.

3. Notes on validation. Here is a list of validation checks you can perform. Some are easier to implement than others, and there are many ways to correctly validate these aspects of the fields. Implement as many as you can.
- Birthdate string entered by user
 - String must contain only digits or slashes
 - String must have two slashes '/'
 - Year should be in the last 110 years.
 - The month should be between 1 and 12
 - The day should be between 1 and 31
 - (There are more checks we could do, but let's save these...)

 - Email address string entered by user
 - String must contain a '@' and at least one '.'
 - A '.' must follow the '@'
 - String must only contain one '@'

 - Social Security Number string entered by user
 - String must contain two '-' characters in the correct position
 - The length of the string must be 11
 - String must contain only digits or numbers.