Work on this lab by yourself or with a partner.

Write the code for the lab below and must upload the zipped src folder to the learning hub (learn.bcit.ca 🡪 Activities 🡪 Assignments 🡪 Lab2b) before the start of lesson 3.

Include your full name at the top of each class, using a Java Javadoc   
/\*\* @author \*/ tag (for example: /\*\* @author Jason Harrison \*/).

Create a Java class with the following properties and methods:

**Date class:**

The class and file names are both Date.

**Properties:**

* **Year e.g. 2021**
* **Month e.g. “December”**
* **Day e.g. 25**

**Methods:**

* **accessor methods (aka getters) e.g. returns 2021, etc**
* **getDate() method which returns a String version of the date in the form of “March 15, 1980”**

**Calendar class:**

The class and file names are both Calendar.

**Properties:**

* ArrayList called years of the Integers from 1910 to 2025 (Integers)
* Array called months of all twelve month names (Strings: e.g. “January”, “February”, …)
* ArrayList called days of the Integers 1 to 30, inclusive (Integers)
* HashMap called dates whose key is an Integer and value is a Date (see below)

**Constructor:**

The constructor must do the following:

* Used nested loops (loop inside a loop inside a loop) as follows:
  + Use a **for-each loop** to iterate through the years
  + Use a **for loop** to iterate through the months
  + Use an **iterator** to iterate through the days
* …to create a Date object for every date from January 1, 1910 until December 30, 2025 (each month will have 30 days)…
* and store each Date object in the HashMap dates instance variable. January 1 1910 has key 1, January 2 1910 has key 2, …, all the way up to December 30 2025 which has key 41760.

**Methods:**

* printCalendar() prints each Date in the calendar by using the **dates** object’s keySet() method with a for-each loop, calling the Date’s getDate() method.

**Main class:**

The class and file names are both Main.

Contains the main method, which creates a Calendar object and calls its printCalendar() method which gives the following output:

1: January 1, 1910

2: January 2, 1910

3: January 3, 1910

4: January 4, 1910

5: January 5, 1910

...

14458: February 28, 1950

14459: February 29, 1950

14460: February 30, 1950

14461: March 1, 1950

14462: March 2, 1950

14463: March 3, 1950

14464: March 4, 1950

...

30239: December 29, 1993

30240: December 30, 1993

30241: January 1, 1994

30242: January 2, 1994

...

41757: December 27, 2025

41758: December 28, 2025

41759: December 29, 2025

41760: December 30, 2025