COP3330C Module 8 Graded Programming Assignment

In this assignment we will modify the Module 7 solution to implement the decorator pattern, which will we use to implement a new feature that localizes our appointment reminders.

This assignment will give you practice reading and maintaining existing code; I have done most of the work for you, but you will need to create a fourth property file (for english) in the resource bundle included in the repo. You will also need to complete the LocalizedReminder class using the template I have provided in Reminder.java; this template includes a buildReminder method with the required localization code so you won't have to implement it yourself. Do not modify any of my code, but add to it in order to complete the new class so that it works as expected. Add your ID header information to mine in any of my files that you modify.

Output is shown here, I am alternating between sending a non-localized Reminder using the legacy class and the decorated version which provides the localization.

```
Sending the following SMS message to John Smith at (904) 555-1212
Sending the following SMS message to John Smith at (904) 555-1212
Sending the following email message to Joëlle Coutaz at Joëlle.Coutaz@email.com
Sending the following email message to Joëlle Coutaz at Joëlle.Coutaz@email.com
Sending the following email message to Andy Bechtolsheim at
Andy.Bechtolsheim@email.com
Sending the following email message to Andy Bechtolsheim at
Andy.Bechtolsheim@email.com
Sending the following email message to Xia Peisu at Xia.Peisu@email.com
Sending the following email message to Xia Peisu at Xia.Peisu@email.com
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                      +
+ This is a reminder that you have an upcoming appointment. +
+                                                         +
+ Title: Test Appointment 1                               +
+ Description: This is test appointment 1                 +
+ Date: 25 May, 2023                                      +
+ Time: 09:10 PM America/New_York                         +
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Wednesday, October 25, 2023 at 9:10:54 PM Eastern Daylight Time +
+ You have an appointment!                                       +
+ John Smith                                                     +
+ Title: Test Appointment 1                                      +
+ Description: This is test appointment 1                        +
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, Joëlle Coutaz!                                   +
+ This is a reminder that you have an upcoming appointment. +
+                                                         +
+ Title: Test Appointment 2                               +
+ Description: This is test appointment 2                 +
+ Date: 25 July, 2024                                     +
+ Time: 09:10 PM America/New_York                         +
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ mercredi 25 octobre 2023 à 21:10:54 heure d'été de l'Est +
+ Vous avez rendezvous!                                    +
+ Joëlle Coutaz                                            +
+ Title: Test Appointment 2                                +
+ Description: This is test appointment 2                  +
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, Andy Bechtolsheim!                                +
+ This is a reminder that you have an upcoming appointment. +
+                                                           +
+ Title: Test Appointment 3                                 +
+ Description: This is test appointment 3                   +
+ Date: 25 February, 2023                                   +
+ Time: 09:10 PM America/New_York                           +
  +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Mittwoch, 25. Oktober 2023 um 21:10:54 Nordamerikanische Ostküsten-Sommerzeit +
+ Sie haben einen Termin!                                                       +
+ Andy Bechtolsheim                                                             +
+ Title: Test Appointment 3                                                     +
+ Description: This is test appointment 3                                       +
  +++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, Xia Peisu!                                        +
+ This is a reminder that you have an upcoming appointment. +
+                                                          +
+ Title: Test Appointment 4                                +
+ Description: This is test appointment 4                  +
+ Date: 25 June, 2024                                      +
+ Time: 09:10 PM America/New_York                          +
  ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++++++++++++++++++++++++++++++++++++++++++++++++++
+ 2023年10月25日星期三 北美东部夏令时间 下午9:10:54      +
+ 你有個約會!                                        +
+ Xia Peisu                                       +
+ Title: Test Appointment 4                       +
+ Description: This is test appointment 4 +
  +++++++++++++++++++++++++++++++++++++++++++++++++
```

As with the practice exercise, the padding is not correct for the Chinese version, you can ignore that issue for this assignment.