COP3330C Module 4 Graded Assignment

For this assignment we will extend our Calendar application to focus on creating a Scrum appointment tool.

From the Module 1 Reading (**The 2020 Scrum Guide**, https://scrumguides.org/scrum-guide.html) we can derive five separate meeting types identified as Scrum Events:

1. Sprint Planning Meeting:
   The product owner explains their vision and how the team should complete this step of the project. Team members decide the amount of work they can complete within the sprint. The team also moves work from the Product Backlog to the Sprint Backlog.
2. Daily Scrum:
   Every day the team gathers for a short meeting to report any issues or progress on their tasks.
3. Sprint Review Meeting:
   This meeting is used to showcase a live demonstration of the work completed.
4. Sprint Retrospective Meeting:
   This meeting is held to facilitate a team's reflection on their progress. The team speaks openly about their organizational concerns and teamwork.
5. Backlog Refinement Meeting:
   Team members focus on the quality and skill of the work involved during the sprints, connecting with the development team and assessing the quality of the final product.

Start with the Module 3 programming assignment solution (or your solution) and make the following changes.

NOTE: use incremental development in the following steps! Make a change, test your code. The application should run as before after each change until we add new functionality further down in these instructions. "Go for the green" in IntelliJ - keep your build status green, if you encounter errors, fix them before continuing.

Split the Appointment and Contact classes out of the CalendarApp class file and into their own separate, public classes.

Create a new public ScrumAppointmentFactory class; this will generate appointments based on a subtype, which should be an an enumerated type for the Scrum appointment types listed above. In the ScrumAppointmentFactory class source code file, create five Appointment subclasses based on these subtypes.

Generate one appointment of each time using the factory. For this assignment don't worry about fabricating reminder times to generate a reminder, just force the reminder to show for each appointment when you check the reminder times.

Submit your solution to the GitHub classroom repo created when you accepted the assignment invitation.

Sample output (note the different meeting descriptions, which correspond to a specific subclass):

```
Sending the following SMS message to John Smith at (904) 555-1212
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                            +
+ This is a reminder that you have an upcoming appointment. +
```

```
+                                                            +
+ Title: Appointment1                                        +
+ Description: Backlog Refinement                           +
+ Date: 4 March, 2024                                       +
+ Time: 09:21 PM America/New_York                           +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

Sending the following SMS message to John Smith at (904) 555-1212
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                        +
+ This is a reminder that you have an upcoming appointment. +
+                                                            +
+ Title: Appointment2                                        +
+ Description: Daily Scrum                                   +
+ Date: 4 February, 2024                                     +
+ Time: 09:21 PM America/New_York                           +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

Sending the following SMS message to John Smith at (904) 555-1212
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                        +
+ This is a reminder that you have an upcoming appointment. +
+                                                            +
+ Title: Appointment3                                        +
+ Description: Sprint Planning                               +
+ Date: 4 September, 2023                                    +
+ Time: 09:21 PM America/New_York                           +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++

Sending the following SMS message to John Smith at (904) 555-1212
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                        +
+ This is a reminder that you have an upcoming appointment. +
+                                                            +
+ Title: Appointment4                                        +
+ Description: Sprint Retrospective                          +
+ Date: 4 February, 2023                                     +
+ Time: 09:21 PM America/New_York                           +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

Sending the following SMS message to John Smith at (904) 555-1212

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+ Hello, John Smith!                                           +
+ This is a reminder that you have an upcoming appointment.    +
+                                                              +
+ Title: Appointment5                                          +
+ Description: Sprint Review                                   +
+ Date: 4 June, 2024                                           +
+ Time: 09:21 PM America/New_York                              +
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```