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CSCI 142
(all sections)
Spring 2022
Assignment

Assignment 0

Due: Monday 1/24/2022 11:59 PM EST

Contents

Directions

For this assignment, you are asked to setup the technology we will be using in this course. Once you are finished setting everything up, you will make one very small change to the code provided, and then commit and push your code changes to your GitHub Classroom repository. You can deviate from the default technology if desired, so long as you can access the GitHub Classroom repositories provided and commit and push your changes.

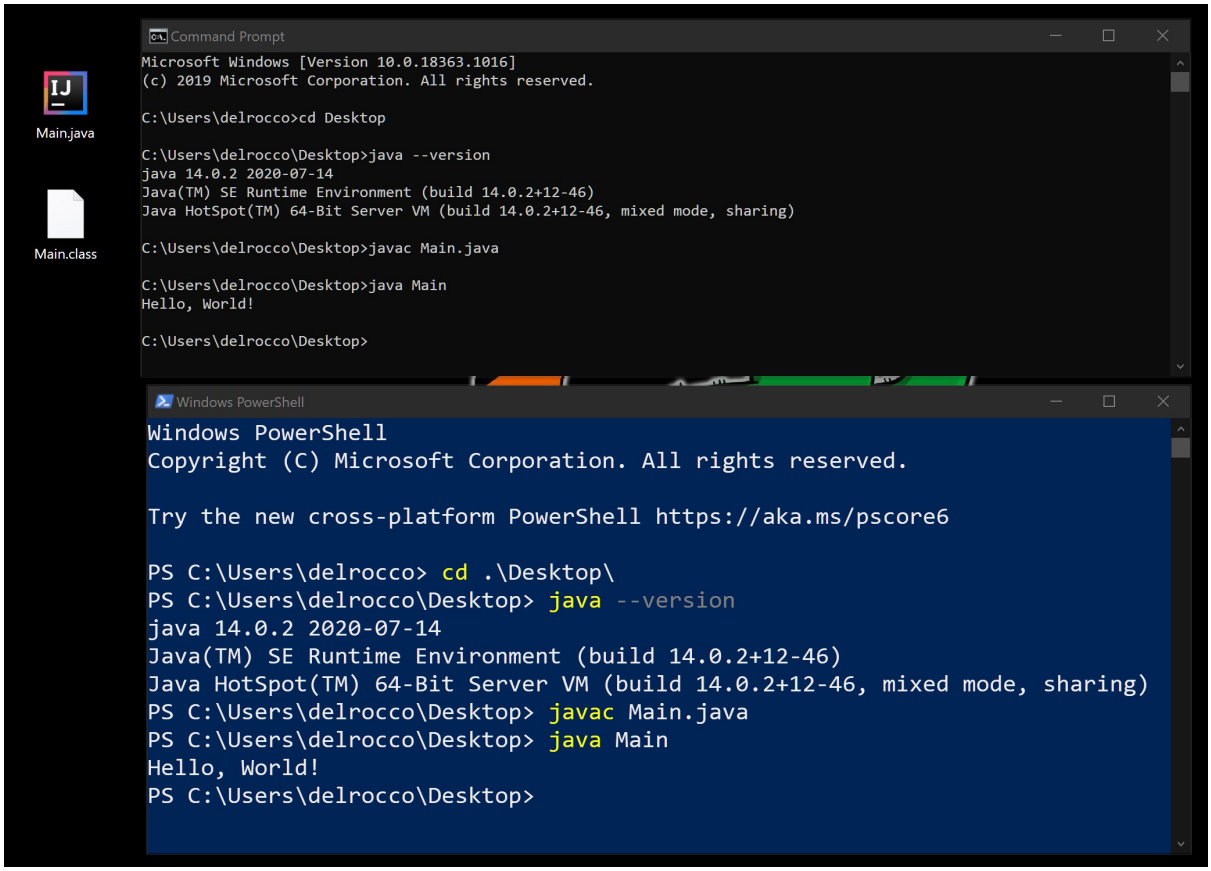
You will perform the following tasks:

1. Install and test a modern Java JDK (version 15, 14, 13, 12, or 11).
2. Install and test JetBrains IntellJ IDEA Community Edition (or equivalent preferred IDE).
3. Create a GitHub account. Install GitHub Desktop (or equivalent preferred Git client).
4. Click and clone provided GitHub Classroom assignment link.
5. Make requested code change. Commit and Push code change before the due date.
6. Print and sign Honor Pledge page of syllabus. Take picture. Commit and push.

1) Java JDK

First, you will install the latest JDK and test it. Follow the directions explained in class, and/or follow this document, and/or watch this video to install the JDK and test to make sure it is installed properly. The document provided contains a simple "Hello, World" program that you can save to a `Main.java` file and test with.

Here is a screenshot of testing the JDK in both Command Prompt and PowerShell after it has been installed and the Windows `PATH` environment variable has been configured:

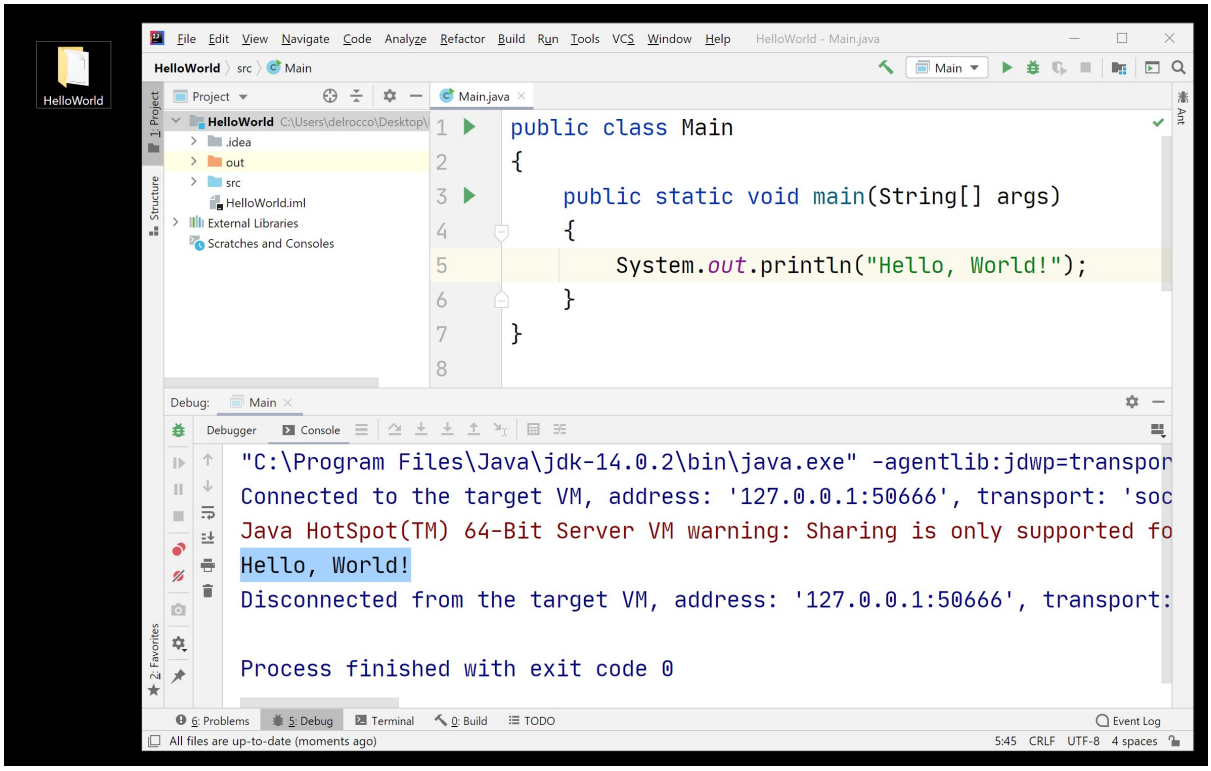


If you are using macOS instead of Windows, the process is very similar, except you will be using the program Terminal as opposed to Command Prompt or PowerShell.

2) JetBrains IntelliJ IDEA IDE

Next, you will install a modern Integrated Development Environment (IDE) to help you program in Java throughout this course. You can install and use another IDE if you desire, but I will be using IntelliJ IDEA Community Edition in class. Note that IDEA is faster and more modern than Eclipse. VS Code is an alternative modern, lightweight IDE that you can use, so long as you are comfortable doing so without my support. I would not recommend NetBeans, JCreator, JBuilder or Android Studio at this time. If you decide to install IntelliJ IDEA, follow the directions explained in class, and/or follow this document, and/or watch this video. Test a simple "Hello, World" program with the code provided in the linked document by first building/compiling it and then running/debugging it.

Here is a screenshot of testing with IntelliJ IDEA after it has been installed and configured to use the previously installed JDK:



IntellJ IDEA works on macOS as well.

3) GitHub

Next, create a GitHub account (if you don't already have one). Then download and install GitHub Desktop, a visual client for interacting with Git repositories. If you'd rather install Git manually and use a different client or the command shell, that is fine too; the choice is yours. If you have never used source control before and want a streamline experience, just use GitHub Desktop.

4) GitHub Classroom

First, watch this video. Then, log into GitHub, click the link below, accept the assignment, link your GitHub identifier to your Stetson roster identifier, view the new `csci142-assign0-xxxxxx` repository

that has been generated just for you (where `xxxxxx` is your roster identifier), then clone (download) that new repository to your hard drive using your Git client (e.g. GitHub Desktop). You now have your Assignment 0 repository and the ability to make changes and commit and push those changes up to GitHub Classroom.

Here is the invitation link to the `csci142-assign0` repository on our GitHub Classroom:
https://classroom.github.com/a/kttV3S1p

5) Code, Commit, Push

Finally, you will make the desired code changes. In the source code provided, there is a class called `Sequence`, which represents a sequence of consecutive integers. You initialize a `Sequence` object by passing the starting integer and the ending integer of the sequence (inclusive). Multiple methods in the class `Sequence` have been prototyped but are missing any real functionality. Your job is to fill in the functionality of those methods based on the comments and Example Output. **Do not make any changes to the `Main` file.** Commit and push your changes regularly to GitHub using your Git client (e.g. GitHub Desktop). We demonstrated this in class, but it is also demonstrated in this video. We recommend you commit changes with comments early and often.

6) The Honor Pledge

One of the pages of the syllabus for this course is the Stetson Honor Pledge from the Stetson Honor System website. Please sign and date this page. Your actual signature should appear on the page, not just typed. There are multiple ways to accomplish that; you could use a touch screen and a screen writer program and then save your signature in the file or take a screenshot; you could print, sign, and scan or take a photo of the page; you could even just take a photo of your signature on a piece of paper and then include that cropped photo on the page. The easiest way may be to just print the page out, sign it, and take photo of it. Once you have the file / photo of the signed page, add it to your local Git repository that you cloned from GitHub. Go to the folder / directory on your hard drive where your local Git repo exists. Add your file somewhere in that folder. Finally, use your Git client (e.g. GitHub Desktop) to commit and push this change to GitHub.

Submission

You will commit and push your changes to your specific GitHub Classroom repository for this assignment. You are encouraged to use an IDE for development, but we will compile and run your program using the shell/terminal during grading, so it isn't a bad idea to test it in that environment to make sure it works. Please follow the directions in this assignment, make the requested code changes, and commit and push your changes any time before the due date. Please see the advice below; it is important for grading purposes. **Failure to follow these directions will result in a loss of points.**

Always make sure to:

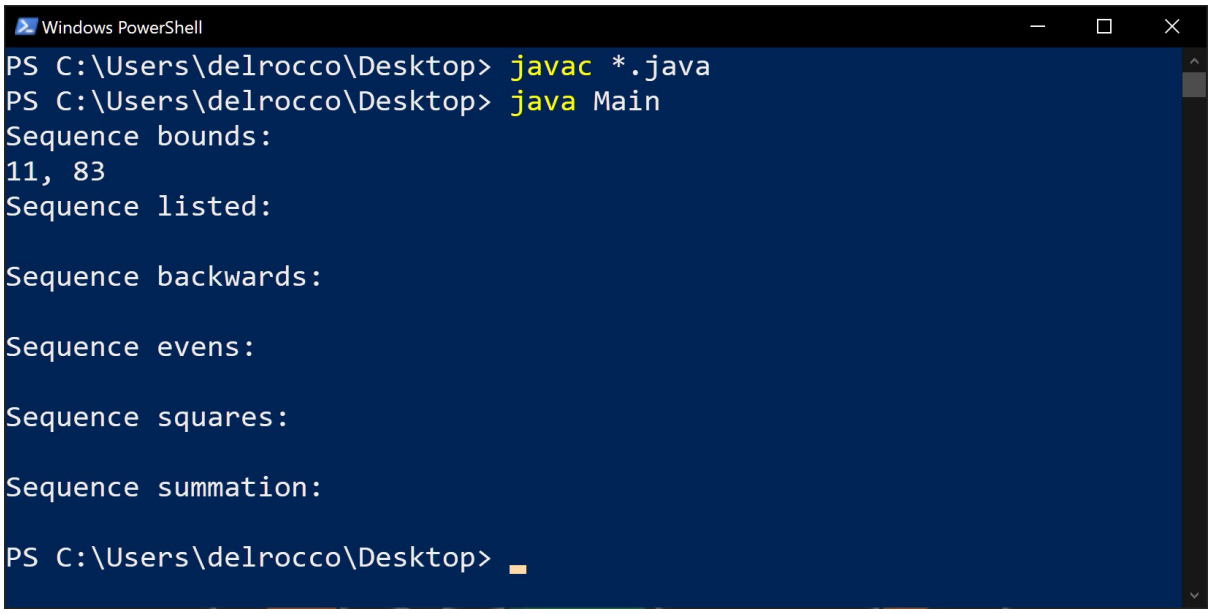
- Keep all source files in the folder called `src`, which is one directory in from the root of your repo
- Do not commit multiple copies of the same named source file; modify the ones provided to you. In other words, do not make an old and new version of the same file
- The main starting source file should always be called `Main`
- When loading resources, do not use absolute paths to files on your drive; use relative paths
- Do not have the keyword `package` at the top of any files. Some IDEs add your files to a custom package by default. Please remove this, as it complicates grading.

Rubric

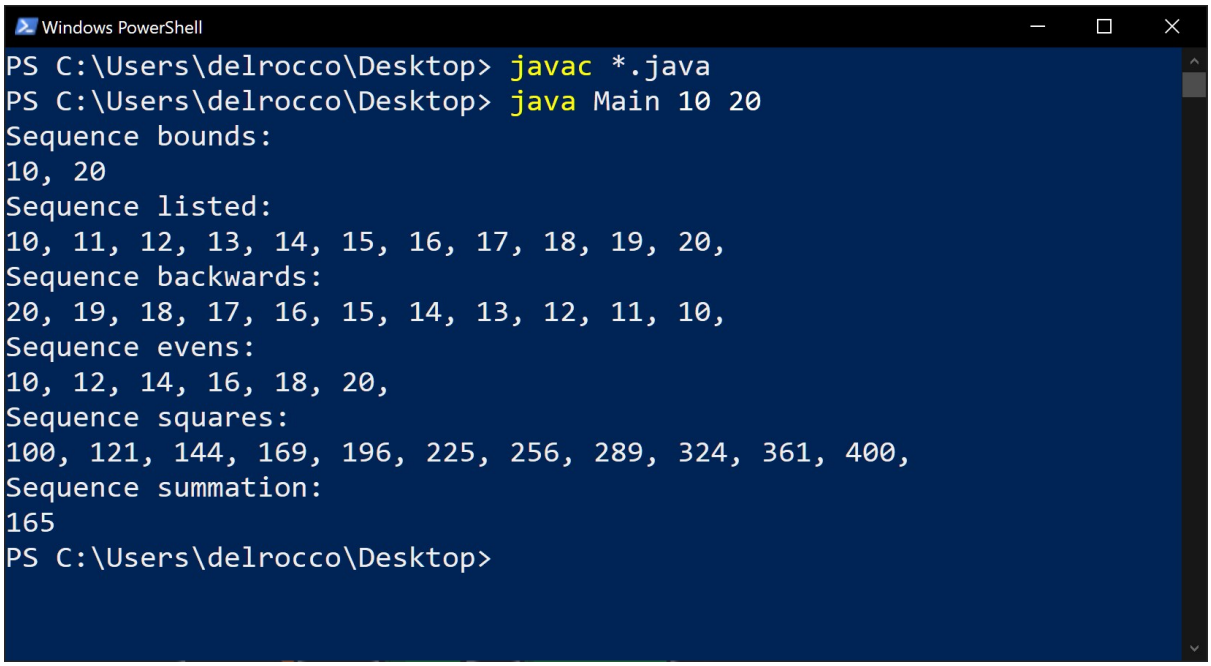
Task	Percentage
Assignment files submitted to Blackboard instead of GitHub	Grade is 0%
Sequence class: constructor, list(), backwards()	30%
Sequence class: evens(), squares(), summation()	60%
Honor Pledge page of syllabus is pushed to GitHub	10%
Total	100%

Example Output

Here is an example of running the program without any changes:



Here is an example of a complete program called from the shell with min 10 and max 20:



Here is an example of a complete program with randomized bounds: