Activity 2.1 - Temp Converter

Overview

In this activity, you will use variables and expressions to write a program that converts a given Fahrenheit temperature to the equivalent Celsius temperature.

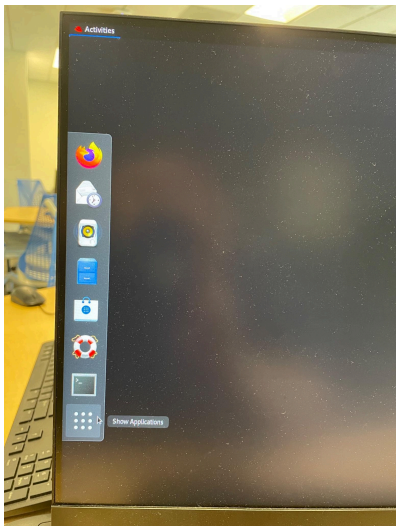
Instructions

We will use Visual Studio Code (VS Code) to write programs the rest of the semester. VS Code is an IDE (Integrated Development Environment) which means it has built-in features to support program development - some of which we will explore during the semester. This activity will walk you through how to launch VScode and start a new java project.

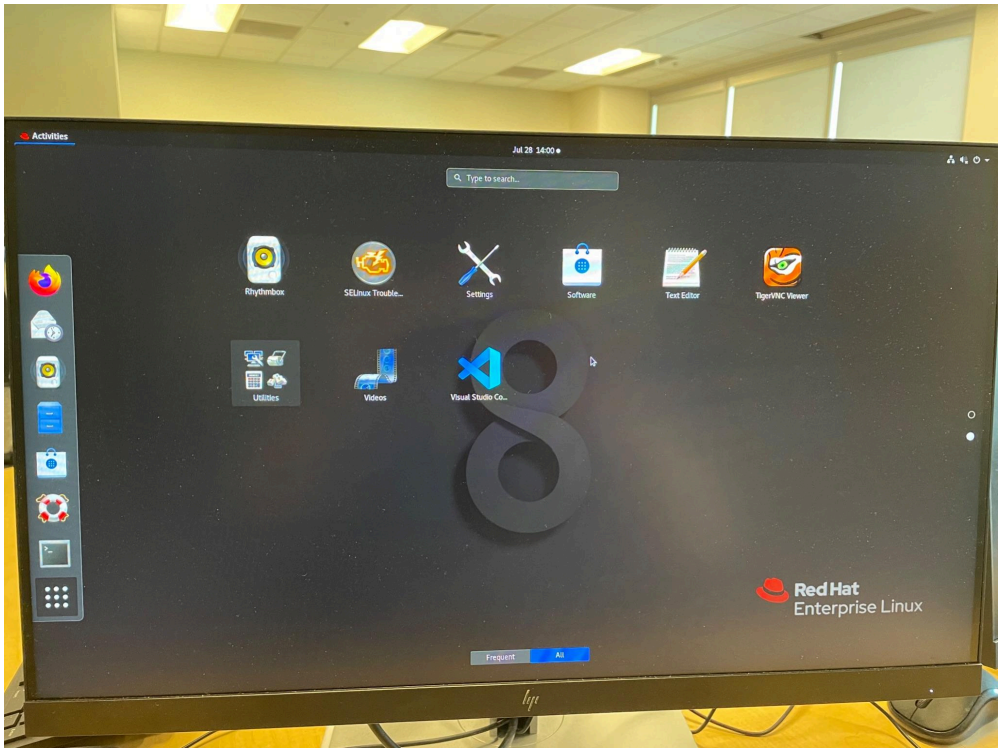
The first thing we will do is import code examples that you can (and should!) refer to while working on activities and projects.

Part 1: Import Code Examples

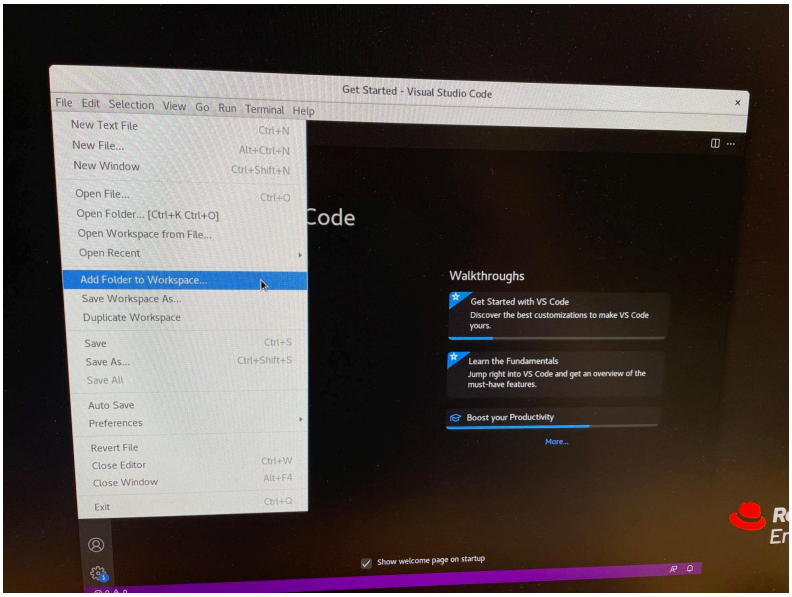
1. Login to your terminal and select the “Activities” menu in the upper left corner of the screen. A menu of icons will appear on the left side of the screen. Select the bottom icon (9 dots arranged in a 3x3 square) to show applications.



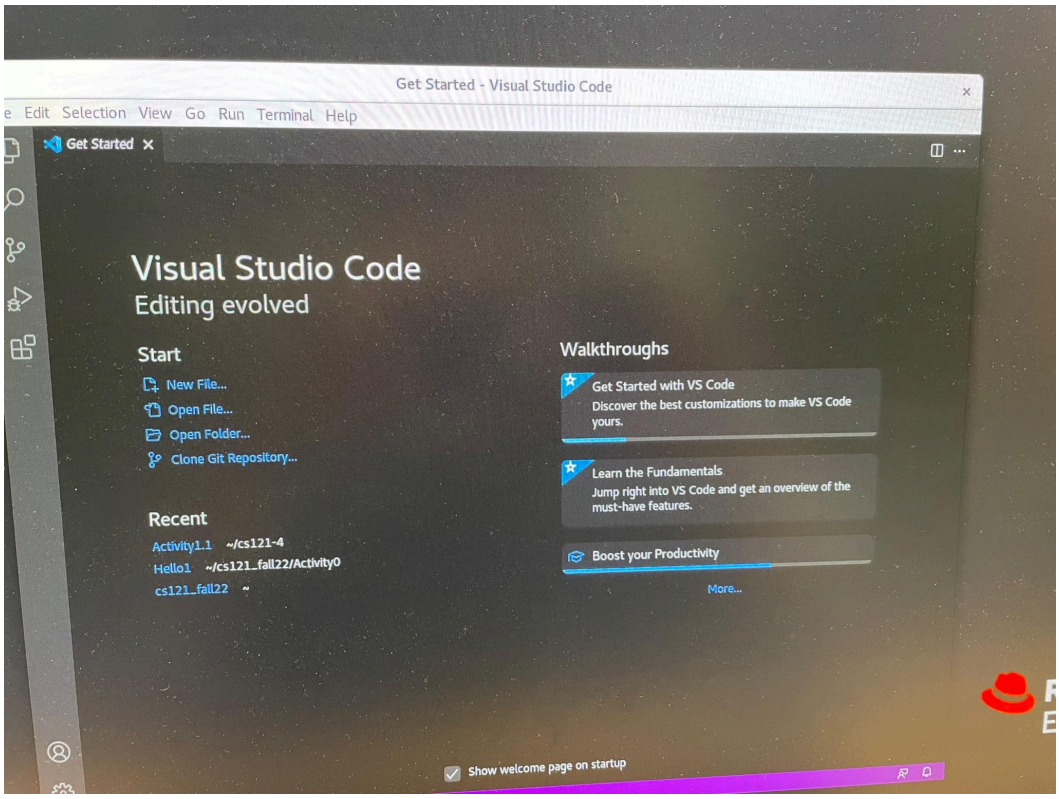
2. Scroll down and select “Visual Studio Code”



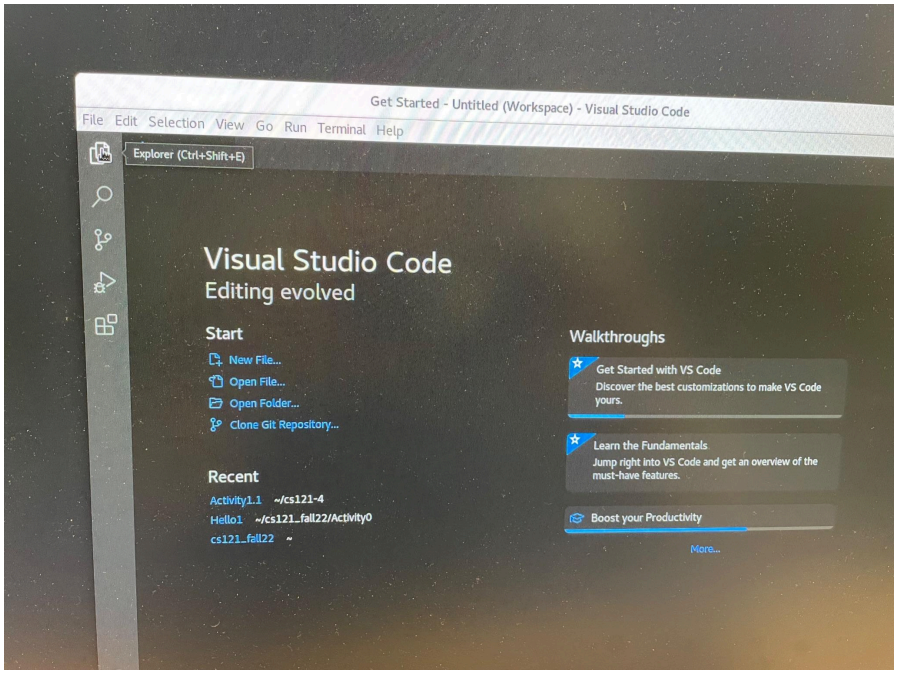
3. Go through the initial setup steps to set your preferences for VSCode.
4. Then open the directory in which you will work. Select `File --> Add Folder to Workspace`. Select the `cs121` directory you made in activity 1.1 and click on “Add” in the top right corner of the window.



4. Now you will import the example repository. Open (or go to) the “Get Started” tab by going to Help. In the “Get Started” tab select “Clone Git Repository”. Enter “https://github.com/BoiseState/CS121-Public-F22.git” in the prompt.



5. You are done! The top icon in the menu on the left of the screen toggles the “Explorer” panel that shows what directories and projects are in your workspace. Click on the explorer icon once and explore the example repository. Try running a few examples to make sure everything is working correctly.



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Part 2: Writing your program

Creating a New Program in Java.

1. Open a terminal and cd into your cs121 directory. Create a new directory (use mkdir) for Activity 2.1.
2. Open a new window of VS Code (Choose File → New Window). This allows you to refer to the example code in one window and write your own code in the other window.
3. In the new window of VS Code choose File → Open Folder. Select your Activity2.1 folder.

Creating a New Class in Your Java Project.

1. Open the explorer panel and hover over the folder name. This will reveal three icons beside the folder name. Choose the one on the left to create a new file. Name it MyTempConverter.java

2. Click on MyTempConverter.java to open the file in the editor panel

3. Open the existing `TempConverter.java` program in the module2 examples that you imported in Part 1. **Use this as a reference for creating your own version of the application that will convert a Fahrenheit temperature to Celsius**. (Note: Instead of reading the temperature from the user, hard-code a fahrenheit temperature. We will explore user input in the next lesson.)

Terminology Identification

In your code add comments identifying examples of the following: primitive data types, data conversion, variable declaration, variable initialization. These should be identified with an @keyterm tag within the comment.

Code Review

When you are finished with this activity, pair up with a classmate and review each other's code to make sure it meets all the requirements.

Submission

After completing the assignment, use the assignment link in Canvas and follow the submission instructions there. You will upload your `MyTempConverter.java` file and submit your reflection in the "Comments" box.

Reflection Requirements

Write a one paragraph reflection describing your experience with this activity. The reflection should also include the name of your code review partner AND something interesting you found in their code. Please review the activity rubric for more details.