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Overview

SFU Applied Sciences Outreach offers fun, engaging workshops and resources that encourage youths to explore topics in Science, Technology, Engineering, and Mathematics (STEM). We aim to not only enhance STEM literacy among youths in BC, but also foster an appreciation of how science can be used to make sense of the world we live in and improve how we do things.

About Hour++ of Code

The Hour Plus Plus of Code event features various one-off workshops for school-age students to learn how to code and implement popular digital tools. The Turtle Graphics in Python workshop is open to Grade 8-12 students. This workshop will introduce students to coding concepts through creating pictures and shapes on a virtual canvas using the Python `turtle` library. It is a fun and interactive way to learn programming for beginners. These workshops will use [Google Colaboratory](#).

Schedule

Date: Feb 3, 2024 (Sat)

Time: 10 am-12 pm

Grade: 8-12

Location: Online over Zoom

Cost: Free

Sign-up link

<https://www.eventbrite.ca/e/765776717777?aff=oddtcreator>

Additional notes

- We use the same learning materials in past workshops. If you attended a workshop with the same description, the materials presented will be the same. However, if you need a refresher on that specific topic, please feel free to join the workshop again!
- A confirmation email with the Zoom link will be sent to students by Jan 30, 2024 (Tuesday) at 5:00 pm and a reminder will be sent by Feb 2, 2024 (Friday) at 5:00 pm.
- Please note that this workshop is cross-promoted as a pre-hackathon workshop to [Hack the Future](#) participants.
- The meeting link will be open 30 minutes before the workshop starts for attendees to test their setup (e.g. is your audio working?).
- If you are not in Grade 8-12 but would like to join this workshop, please contact Eva at sacoord@sfu.ca.

Workshop requirements

- Internet access
- Laptop/Desktop computer
- Google account with [Google Colaboratory](#) installed. We will be using Colab notebooks for these workshops.

Colab setup

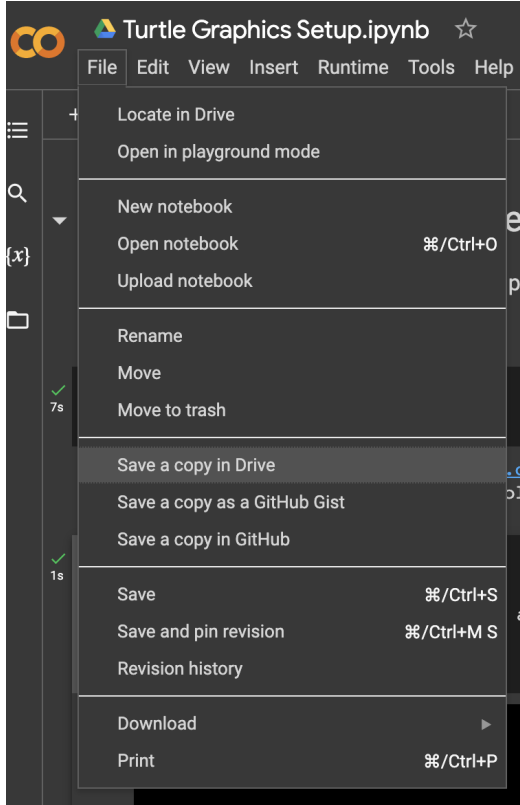
Google Colab notebooks will be used for these workshops. Students are required to sign up for a Google account with [Google Colaboratory](#) installed.


Once you have the above set up, please follow the steps below.

1. Make sure you're logged into your Google account.
2. Click on this link to access the Turtle Graphics Setup notebook - https://colab.research.google.com/drive/1StQvG042w6_yENSAOx50L3L4r57mTRTI?usp=sharing

3. Click on File > Save a copy in Drive

You should be able to edit the Colab notebook that you saved in your Drive.



4. Click on the Run  symbol and you should see the output below.


```

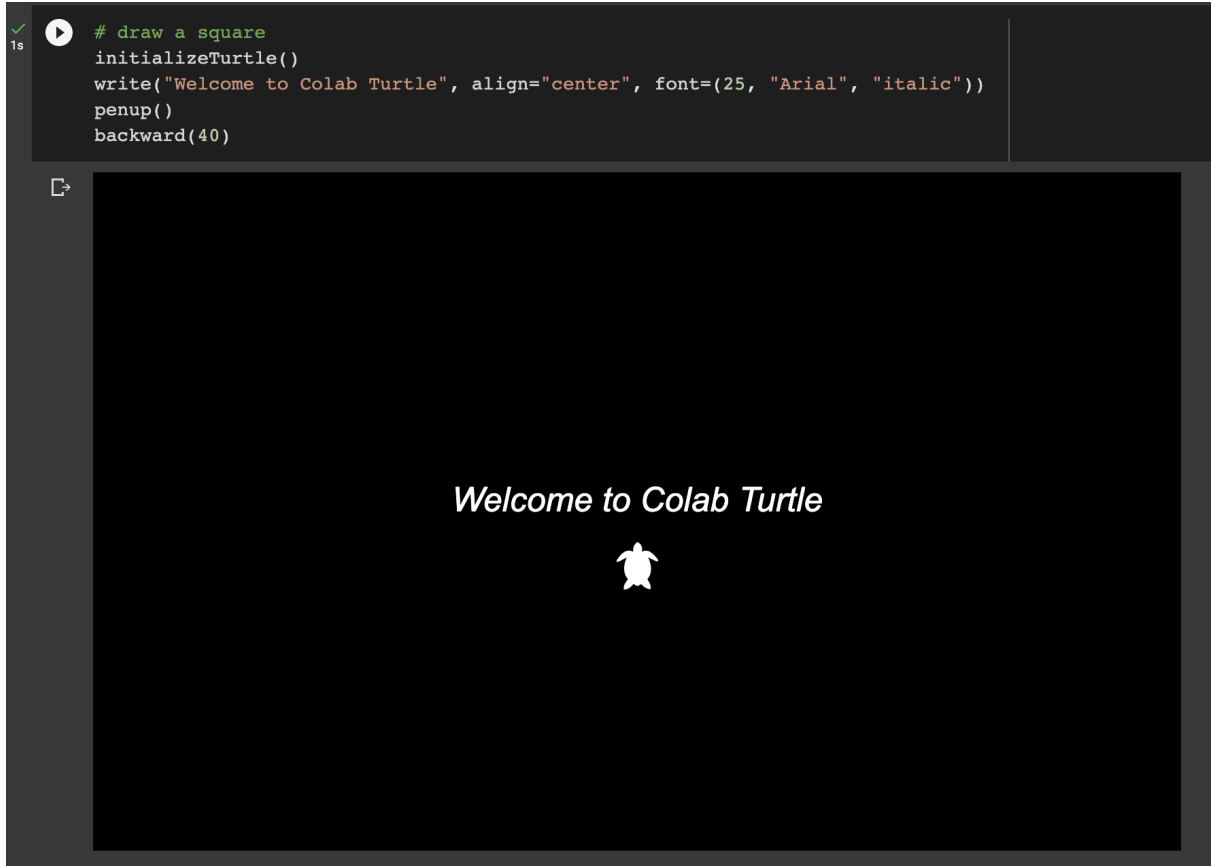
Turtle Graphics on Colab Setup

Please follow the instructions below to setup Turtle Graphics on Colab. If you're unable to do so, please join the meeting link early so you can get help with the set up.

[1] !pip3 install ColabTurtle
    from ColabTurtle.Turtle import *

Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Requirement already satisfied: ColabTurtle in /usr/local/lib/python3.10/dist-packages (2.1.0)
  
```


5. Click on the Run  symbol and you should see the output below.



```

✓ 1s ▶ # draw a square
      initializeTurtle()
      write("Welcome to Colab Turtle", align="center", font=(25, "Arial", "italic"))
      penup()
      backward(40)
  
```

Welcome to Colab Turtle



If you're able to do all the steps above, you're ready for the workshops and we shall see you soon! Otherwise, please join the workshop early to get help with setting up.

Contact

If you have questions, please do not hesitate to contact Eva (Outreach Programs Coordinator, SFU Faculty of Applied Sciences) at sacoord@sfu.ca.

Virtual Community Guidelines

Welcome to the Hour Plus Plus of Code event offered virtually by the SFU Applied Sciences Outreach! We are so excited that you have decided to join us. Our mission is to inspire, encourage, and support youths of all backgrounds to explore the many topics related to science, engineering, and technology through interactive and engaging activities. Before you join us, there are some guidelines we need everyone to follow to maintain the safety of everyone involved. See below for our Virtual Community Guidelines.

Personal Safety: We take safety seriously. If harm is disclosed or discussed (harm to self, or harming others) then we will take the appropriate steps to ensure your continued safety and the safety of those around you. Threats about others personal safety will not be tolerated.

Respect: Treat those online as you would treat them in-person that is with respect, dignity, and care.

No Hate Speech or Bullying: Bullying, discrimination, and harassment of any kind will not be tolerated.

Communication: Communication is encouraged in this workshop. Communicate with respect and listen to others when they speak or share ideas, which includes when sharing ideas out loud or via the chat function. Mute your microphone when not speaking and only turn your video on if you feel comfortable to do so.

Privacy: Respect the privacy and personal information of those in the shared virtual space by not sharing information that is not your own. Respect your own privacy by not sharing any personal information with those you do not know. Sharing of the Zoom link with those outside of the specific intended group is strictly prohibited.

Copyright: There will be no recording of anything that happens in this space, which includes participants and instructors taking pictures, recording parts of the workshop or recording their screen during any part of the workshop.

By joining the Hour Plus Plus of Code event, you are considered to be in agreement with the above community guidelines. We will take the appropriate actions if any of the above guidelines are violated. Depending on the situation, this may result in revoking participation in the remaining workshops. Thank you in advance for your commitment to keeping our programs engaging, safe and of course, fun!