SFU

**FACULTY OF
APPLIED SCIENCES**

App Dev Summer Camps
Program overview and requirements (Summer 2021)

Description

It's dinner time and you're faced with the million-dollar question, "What should we have for dinner?" You spend time thinking about all the delicious foods you crave. "Mmm, pizza, noodle soup, sushi…"

And then you make a decision and a suggestion, but your sibling or friend wants something else instead. What should you do now?
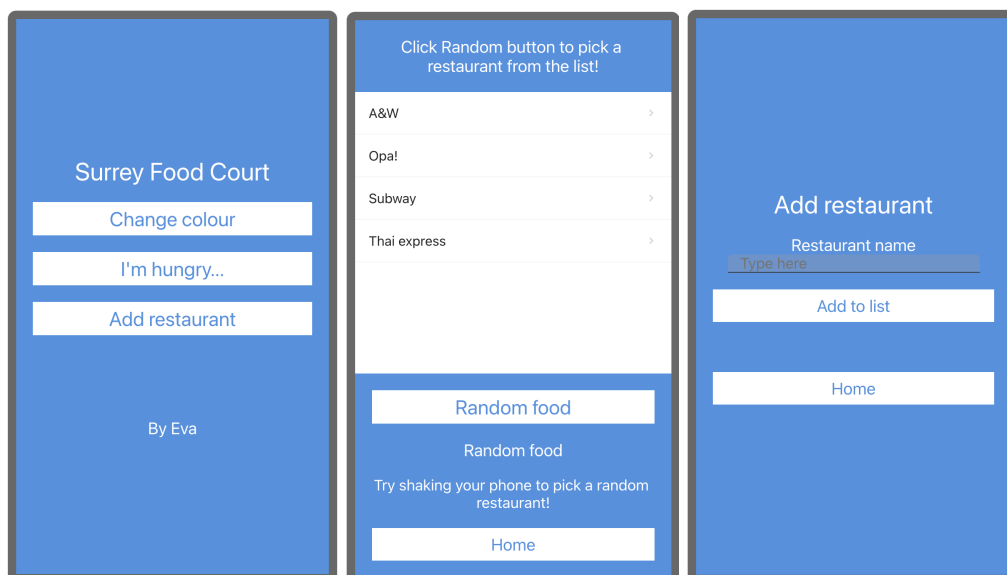
This is a situation many of us have encountered in this day and age of limitless choices. Fear not! In the App Development Summer Camp, students will learn how to plan, design, and code a random food picker app!

The App Development (App Dev) Summer Camp is a week-long series of virtual workshops that runs daily from 10:00am-11:30am. Please note that workshop times are adjusted during the weeks with statutory holidays (see Camp Schedule). This **beginner-friendly workshop series** will focus on app development using Thunkable, which is a drag-and-drop app builder.

In this summer camp, students will attend four workshops in which they will learn how to plan their app design by creating paper prototypes and coding concepts that will help them build a random food picker mobile app. In the final workshop, students will be given the opportunity to present their projects and celebrate their accomplishments. All sessions will be offered virtually via Zoom.

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Random food/restaurant picker app

Video demo: https://youtu.be/1Ob-mWkSbf4

Camp schedule

There will be 8 weeks of summer camps offered in 2021. Please see the details below.
Number of students: 10-12 students per camp
Camp fee: $150 per student

Dates	Time	Grade	Important notes
June 28-30 & July 2	10:00 am-12:00 pm	6-7	July 1 (Canada Day) is a statutory holiday. Workshops will run from 10 am-12 pm on June 28-30 and 10-11:30 am on July 2.
July 5-9	10:00-11:30 am	4-5	NA
July 12-16	10:00-11:30 am	6-7	NA
July 19-23	10:00-11:30 am	4-5	NA
July 26-30	10:00-11:30 am	4-5	NA
Aug 3-6	10:00 am-12:00 pm	6-7	Aug 2 (Civic Holiday) is a statutory holiday. Workshops will run from 10 am-12 pm on Aug 3-5 and 10-11:30 am on Aug 6.
Aug 9-13	10:00-11:30 am	6-7	NA
Aug 16-20	10:00-11:30 am	4-5	NA

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Workshop overview

Session*	Workshop	Description
Day 1 10am-11:30am	Ideation	After attending the Ideation workshop, students will be able to plan their app design by creating paper prototypes.
Day 2 10am-11:30am	Thunkable 1.0	Our Thunkable workshops will cover the following: - Introduction to the Thunkable interface - Variables - Functions - Conditions - Loops - Database (read/write)
Day 3 10am-11:30am	Thunkable 2.0	
Day 4 10am-11:30am	Thunkable 3.0	The progress of covering the concepts above will depend on the pace of the class.
Day 5 10am-11:30am	Show-and-tell	Students will be given the opportunity to present their apps to the class and celebrate their work!

*The Zoom links will be open at 9:30 am for students who wish to test their setup (e.g. is my audio working?).

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Workshop requirements

If you anticipate any technical and/or connectivity limitations that might prevent you from participating in this virtual workshop series, please inform the program coordinator (sacoord@sfu.ca).

Basic requirements

- Internet access
- Laptop/Desktop computer
- Thunkable account: You can sign up here https://thunkable.com/#/
- System requirements:
  - https://appinventor.mit.edu/explore/content/system-requirements.html
  - The system requirements for Thunkable are not listed on its website. Since Thunkable is developed by the same research group that developed App Inventor, let's refer to the system requirements of App Inventor.
  - Web browser: Use this link to check your browser version https://www.whatismybrowser.com/
- Wireframe templates (see PDF attached) and writing utensils:
  - If you have access to a printer, please remember to print at least two sheets of the wireframe template.
  - Alternatively, you could use two sheets of blank papers to draw your wireframes.
  - Please remember to bring your writing utensils. A pencil and an eraser would be preferred over using a pen (it's less messy if you make mistakes).

Optional

- Mobile device or tablet with the Thunkable Live app installed.
  - Our workshops will introduce students to components of smartphones and tablets such as the accelerometer.
  - If students want to live test these features, they will need a mobile device or a tablet with the Thunkable Live app installed. The Thunkable Live app is free.
    - Play store: https://play.google.com/store/apps/details?id=com.thunkable.live&hl=en_CA&gl=US
    - Apple store: https://apps.apple.com/us/app/thunkable-live/id1223262700

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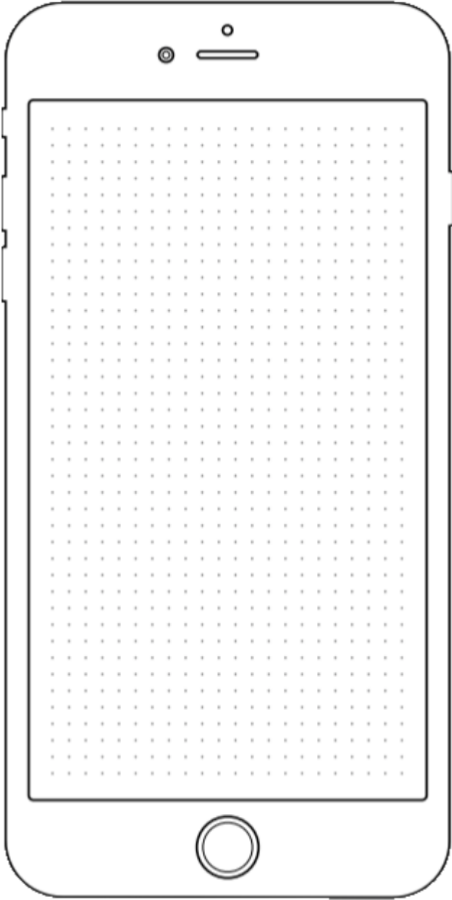Project Name:_____   Date:_____

Screen Name: _____

Image of the wireframe template provided to students. The PDF copy is attached with the email.

Virtual Community Guidelines

Welcome to the App Dev Summer Camp 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 App Dev Summer Camp, 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 for keeping our programs engaging, safe and of course, fun!

FAQs

1. What do you mean by a beginner-friendly workshop?
   - No coding experience is required to participate in the App Dev Summer Camps.
2. My child has experience with Scratch and has worked on many projects. Will this beginner-friendly workshop be suitable for my child?
   - From our experience, students still enjoy working with Thunkable even if they have experience using Scratch.
   - Thunkable has many features that Scratch does not have such as the ability to read and write a database, integrate components of smart devices into your app (e.g. accelerometer), and live test your app on a smartphone or a tablet using the free Thunkable Live app.
3. My child is in Grade 5 but could they join the Grade 6-7 cohort instead?
   - We are willing to evaluate and consider these requests. However, please note that starting at a more advanced level of instruction might cause a student to miss out on important basic coding concepts and learning these concepts with the proper support from our instructors. This could result in a poor first experience for the student. Please contact the program coordinator (sacoord@sfu.ca) before registering.
4. Can my child join if they're above the indicated grade level?
   - Yes, but it is important for the student to be aware that there are younger students in the class. Please contact the program coordinator (sacoord@sfu.ca) before registering.
5. Could you use a tablet to run Thunkable and join the workshop?
   - You can run Thunkable on a tablet. However, it is not an ideal setup if you're also running Zoom on the tablet. Students might not be able to view the instructor's screen and their Thunkable project at the same time.
6. I have Zoom set up on the laptop/desktop computer and Thunkable on the tablet. Would that be an issue?
   - This is a common setup but students should have Thunkable open on the laptop/desktop computer too. This will allow them to share their screen with the instructors if they have questions about coding.
7. What happens if my child misses a workshop?
   - We will organize drop-in sessions on a case-by-case basis. The dates and times of these sessions are not set and will only be scheduled if there is a need for them.

Contact

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