### CS 91S: Games Systems

# Lab 1: TIC-80 Micro Platform Study

#### DUE September 13th at 11:59 PM

You and your partner will conduct a small-scale platform study of TIC-80. Your platform study should address the following aspects:

- 1. What is TIC-80? When and why was TIC-80 created? Who created it?
- 2. How does TIC-80 compare to similar projects?
- 3. How does TIC-80 work? (That is a BIG question, but  $\dots)$ 
  - what technologies and languages does it use?
  - what are the capabilities of the hardware TIC-80 emulates?
  - explain the seven segments of the lua project file (created below by save platform.lua)
- 4. Write about one TIC-80 game that caught your eye (https://tic80.com/play); address as many of the what/who/when/how/why questions as possible, but also:
  - how does it use graphics? (e.g., sprites? text? other graphics primitives?)
  - how does it use sound? (e.g., what kind and for what purpose?)
  - how do the controls work?
  - what is your favorite thing about the game?
- 5. [mini-make/remake/demake/hack] Create something of your own using TIC-80. Modify 10-PRINT or SNAKE, or create a 1D-game from scratch. Think weird (check out Barr's snakeisms). But also think small—this is a one-week lab. Reflect on what you were trying to do and how much you achieved.
  - Use F8 to grab a screenshot and F9 for a video (includes these in your report).

## 1 Learning Objectives

- Explore TIC-80
- Get to know the TIC-80 docs & tutorials
- Think and write critically about gaming platforms

#### 2 Deliverable

Submit your platform study on GitHub as a markdown document named writeup/README.md. It does not have to be very long, but should be written in paragraphs, not as a bulleted list of responses to the questions of interest above. Be sure to cite where you found your information. You should also include your TIC-80 creation as a collection of HTML files in the github project.

```
unix:~$ cd tic80-1
unix:~$ tic80 --fs .
tic-80$ save platform.lua
tic-80$ load platform.lua
tic-80$ export html platform.zip
unix:~$ unzip platform.zip -d game
```