Final Projects

- Sketchy, Othello, Pacman, Evolution, Indy

Sketchy

- TAs: Taylor, Lucy, Aalia, Andy, Wambui, Cooper, Dora, Georgia, Lily, Niyoshi, Olivia, Nicole, Milla

Some info

- Build an application which lets you make art
- Manipulate shapes (fill color, resize, rotate, etc.)
- Draw lines
- Layer shapes
- Undo/Redo
- File saving and loading
Top 5 Reasons to do Sketchy (1/5)

Adobe Photoshop = really complicated???

Windows Paint = 😞

Sketchy = literally the greatest product ever designed

Top 5 Reasons to do Sketchy (2/5)

2 HTAs for the price of 1

I mean look at them
Top 5 Reasons to do Sketchy (3/5)
You never have to use Arrays again. Ever.*

```
int[][] nums = new int[10][10]
```

*We can't actually guarantee that you'll never use them again in your life. Sorry.

Top 5 Reasons to do Sketchy (4/5)
I'm sorry, was one shitty arcade game not good enough for you ????

We don't play games.

Top 5 Reasons to do Sketchy (5/5)

Real footage of Indy HTA Julie Wang talking about being ~quirky~ and ~not like other TAs~
Demo

Othello

TAs: Noah, Maura, Gil, Julia, Lisa, Lucy W., Marina, Selena, Sierra, Tom, Tzion

Some info

- Othello is a two-player strategy board game also known as Reversi.
- Create your own multi-level Artificial Intelligence (AI) player that can play a human user or another AI.
- Have fun with recursion and make an interactive GUI.
Top 5 Reasons to do Othello (1/5)

Because who wants to make another composite shape again
(I mean just look at those ghosts)
(and Sketchy is literally just a tool to make MORE composite shapes)

Top 5 Reasons to do Othello (2/5)

You can play with Oreos.

No argument necessary really. How could you pass this up?
Top 5 Reasons to do Othello (3/5)

All CS15 TAs that did Othello are now CS15 TAs

Top 5 Reasons to do Othello (4/5)

It's more than creating a project. It's creating a long-lasting friendship.

Top 5 Reasons to do Othello (5/5)

Your friends will never get tired of your super original and witty recursion jokes
Top 5 Reasons to do Othello (6/5)

Even Shakespeare says Othello was his greatest accomplishment

*Demos*
Some info

- Super rad arcade game
- Write an AI for the Ghosts by implementing a Breadth First Search algorithm
- Play against said ghosts as you “test your game”
- Opportunities for fun extra credit like fruit and extra levels

Video

Top 5 Reasons to do Pacman (1/5)

- Have you been having trouble landing your jokes?
- Do you want people to think that you’re funny?

“Before doing Pacman I had never told a joke. After completing Pacman, people won’t stop laughing at me.” -cvogler

2/3 Humor TAs did Pacman!

[Image of Pacman game and related graphics]
Top 5 Reasons to do Pacman (2/5)

Even Shakespeare hates Othello.

“To be or not to be, that is the question. To do Othello or not to do Othello, that... that is not even a question.”
(Hamlet, Act III, Scene I)

Top 5 Reasons to do Pacman (3/5)

Sketchy is all about pretty pictures so we took a relevant screenshot:
Top 5 Reasons to do Pacman (4/5)

All of the Sketchy TAs actually have a deep passion for Pacman but were reassigned to Sketchy to meet TA quotas

Top 5 Reasons to do Pacman (5/5)

Indy? More like *intheCITallthetime*

Demos
Some info

- A brand new final project!
- ML based project where birds learn how to play FlappyBird on their own
- Broken up into 3 parts:
  - Part 1: Code FlappyBird (it’s like an easier DoodleJump)
  - Part 2: Make a population of birds that learn how to beat the game by themselves!
  - Part 3: Optimize your design
- Go through the super satisfying experience of watching your bird babies learn to fly flying

Some More info

- Since this project is brand new, we will be restricting the number of students that can take this project.
- You must fill out the form at the top of the handout by Wednesday (tomorrow, 11/20) at noon to be considered.
- You’ll hear back Wednesday (tomorrow) night
Top 5 Reasons to do Evolution (1/5)

- If you choose another FP it means you don't believe in evolution

Charles Darwin @kevin  ·  Nov 16
Anybody who doesn't do Evolution doesn't believe in evolution

*Made in Microsoft Paint, sketchy*

Top 5 Reasons to do Evolution (2/5)

- It's the only project that actually has AI

Top 5 Reasons to do Evolution (3/5)

- Because no one has ever TA'd this project before, there will be ample opportunities to post about how bad we are on Dear Blueno

Dear Blueno
November 12 at 3:30 PM @

13370 - Why do I feel like none of these Evolution TAs have ever done the project before?
Top 5 Reasons to do Evolution (4/5)

- Because we are the most attractive TAs, there will also be ample opportunities to post about how attractive we are on Blueno Bears Admirers

Top 5 Reasons to do Evolution (5/5)

- If you don't do evolution then you've got to be garbage collected

Demo
VIDEO taylor pls

Indy
TAs: Julie, Will, Zach, Zoe

Some info

- You design your own project!!
- Requirements:
  - Appropriate length (e.g. not LiteBrite)
  - Use a data structure
  - Use an algorithm of moderate complexity (at least as complicated as Tetris’s line clearing)
  - Originality
- Possibilities are endless!
Top 5 Reasons to do Indy (1/5)

You won’t have to go to TA hours in the Fishbowl and we won’t make you use the Google Form ever again.

Top 5 Reasons to do Indy (2/5)

Never made it to market

Top 5 Reasons to do Indy (2/5)

1980 1883 Never made it to market
Top 5 Reasons to do Indy (3/5)

None of Pacman’s reasons were even about Pacman, they were all just about the other FPs

Top 5 Reasons to do Indy (4/5)

Indy is only one letter away from Andy

Top 5 Reasons to do Indy (5/5)

2831 - Indy student in the SunLab last night can... 
2834 - TBH my one regret is not doing Indy in CS15
Top 5 Reasons to do Indy (6/5)

You get to interact with Cooper Birdsall and Cooper Birdsall

I mean... uhh... zach and will

Demos

Very Important Indy Information

- If you’re interested in doing Indy, you should
  - Develop an initial plan for yours soon. If you have any questions you can email the Indy TAs at: jwang73@cs.brown.edu, wbuerger@cs.brown.edu, checkman@cs.brown.edu and zmothner@cs.brown.edu.
  - Find a “backup” Final Project that you’ll do in case your project doesn’t get approved.
- Send us a project proposal by THIS THURSDAY MIDNIGHT
- Keep in mind—Indy is a much larger time commitment than the other final projects
  - You’ll be responsible for creating your own program specs and design (other projects already have this planned out).
  - There’s a lot of freedom in this assignment—be comfortable with the lack of structure!
- It’s a lot of work, but a lot of fun!
Announcements

- Final Project Help Sessions during class time *this Thursday*
  - Locations were sent out in email yesterday
  - Make sure to read the handout thoroughly before coming—it will save you lots of time down the road
- Fill out the Final Project Declaration form by Saturday 11:59 pm
  - You will only be able to sign up for hours for the project you pick, so think carefully!
- Tetris late deadline is today at 11:59 pm