Information and Journal

This is the informational page from the COMP 585 team making a game "to teach UNC employees good computer behaviors and recognition of security threats."

This project will create a gamification of good computer behaviors and/or the recognition of security threats. UNC employees will be able to log in and be tracked on their progress through the game system (for acknowledgement by superiors, sharing via social media, etc.). Some tasks will encourage collaboration in order to encourage more users to participate and to build connections between UNC staff members.

Possible topics include the following:

- Identifying suspicious emails
- Contacting IT for suspicious emails
- Not reusing passwords between work and personal sites
- Password Manager (LastPass at work)
- Restarting computers weekly
- Installing patches when prompted
- Contacting IT to update software
- Using a separate personal email address for personal banking and messaging
- VPN usage during travel (split-tunnel VPN rules)
- Windows XP, 7, 8 retirement at home and at work do not use/replace
- Protecting Sensitive information:
 - Banking, Structural and Utility Plans, Student Data, Addresses, HIPAA, security responses, etc
- Facebook and social privacy: Account reset questions
- Be cautious of IT support phone calls
- Reporting lost devices
- Whole disk encryption
- Backing up data/ diffusing ransomware
- Locking computers/logging off when you walk away
- End of life software Flash removal
- Installing software from unknown source
- Value of a UNC account
- What can be done with a UNC.edu account?

Client

- Dan Barker, UNC Service Center for Excellence barker123@unc.edu (919)-962-GEEK
- Dan trains UNC employees in computer usage safety. His department, Finance and Operations, forms
 the backbone of what keeps the UNC system working, from dining to parking and everything in
 between.

The following **journal** served as an at least weekly recording of the decisions and processes involved in bringing this game to fruition.

April 24: Meeting with Dan

Dan liked the account page layout

Dan said to bring the report button up to being beside the reply button on the messages

Onyen as the name and then some other identifier

Visual feedback on the buttons is good

Pre-calculated on the users

• When a new high score happens Trying to fix leaderboard – go ahead

Anything else Dan wants before Wednesday?

• "It is looking good, looks like we are able to use it this year with our users"

April 23: Practice Handoff

Design Doc Testers: Uzorma and Hunter from Race to the Moon

- More instructions on how to do python installation
- There was a problem on the windows computer with running the system locally through the python3 or php commands
- The Opening of the Unity files and scenes was very easy
- They said our design document looked great and they had no trouble finding things
- "pretty straightforward and clear"

April 22: Meeting with Dr. Pozefsky

Back button on the game doesn't work

Leaderboard * should we have the onyen or a username

- Question of when you look at it or not Buttons
- Make button disappear once we click it
- Positive reinforcement HTML page for the Report button
- Question for Dan make password platformer worth 1000 games? Difficulty on levels
- Having 2 bad questions?
- Can make the jumps between each one

Goal of handoff is to polish the design document

Need to add the python3 -m http.server command in the design doc for test purposes

Get the Unity stuff up and running locally

Typo in password – "imporrtant" in first line

Originally wanted quit button to force tab to close

• Revert to open in the current tab and then open the games.fo.unc.edu Things with immediate priority and medium priority on the trello board

A quick restart on a button – backspace?

Walkthrough meeting – WEDNESDAY AT 10

April 17: Meeting with Dan

Talked about scheduling

- Told him about handoff date will schedule next week
- Dr. Pozefsky will be there
- He is free may 1 on Friday from 12-3 let him know what time our presentation will be Told him about message board
- As long as in documentation he is happy Fun facts
- .txt file is better

Game

• Told him about

Told him about updates to the database

April 15: Meeting with Dr. Pozefsky

Game

- Successful db connection
- Message board don't allow for other users to access now
- Get the button for report
- Leaderboard
- Script could be left join between password platformer table and password platformer join
- Will have to be updated when it is expanded
- Fun facts as a text file
- Badges
- Instead of having a badges table that updates automatically
- We award badges at update time
- Way to do it only time that creates leaderboard is when page loads

For Next Week

- only time that creates leaderboard is when page loads
- GAME MORE THAN 15 seconds
- Should have end game on the easy/medium/hard screen
- Quit button is a lot more helpful just close the tab with it
- Change the Overview to the instructions
- Instructions of games on left
- Overview on right turns into about passwords
- Overview should remove social competitiveness part and add about beat your friends... Splitting up tasks for next week
- 3 functions click on link reply and report
- Reply as a synonym for click
- Design Doc write down all the design choices but under some things write not implemented

TO TALK ABT:

- How split up teams experts=Seth+taylor travelers=iffy+vinish
- What change to make change php code
- Handoff form done
- Design doc to a good part development part of design doc having testing and running

April 10: Meeting with Dan

Text to spam people – do that in a SQL table, he can add in other versions

- Coupon printer app
- Pure text file for funFacts?

He said looking good

April 8: Meeting with Dr. Pozefsky

Picking the level needs more contrast – hard to see

• Maybe black?

Game is too short

• Find the balance in the amount of time played

Slow time to generate passwords

- Just generate them randomly once and store them and then load them in so there is no lag time Database
- Figured out some errors 500 error was the MS SQL extensions weren't installed for php on the server
- Errors we get now are this user cannot connect

- Alternatives if can't get database working
- Lightweight SQLite
- Still use same commands so if we get the SQL server working we can just easily switch over
- SQL Server management studio is a good resource on the server
- Blocking non-windows login any username and password logins were denied because the windows flag was flipped – then once change try server account again
- Debug logs
- Don't need to keep rebuilding game to hit it
- Open up sendscore.php
- PROGRAM SQL Tool Management Studio
- Before our very eyes we saw Iffy and Taylor work through getting a connection to the SQL server

Ask Dan about the logon failed in SQL

- Ask him about the credentials
- If SQLite doesn't work we drop done to JSON

Add a back button to the HTML page with WebGL (just to make it easier to go back to main menu)

- Another page where we create a new div
- No way to pause and no way to quit

Could just open the game in a new tag – truly do just close the tab

Reprioritize for the next sprint

• Drop tower defense and prioritize MESSAGEBOARD

Another action – report or reply

Separate reporting and click on link

- Link
- Reply or Report

Look at this great news!

Retrieving the onyen expiration date – check

Still a little confused on the shibboleth

WE COULD DO

- Ask options on steps to get to your password 5 step process
- Go pass crap about contacts and security
- And it asks if your phone is still the same number

Coming Soon or Coming Some Day

Sprint 5

- Database (2 ways)
- Fun facts additions documentation
- Leaderboard working
- Pre-generate passwords for platformer
- · Message Board
- Get game design document polished
- Declare that design was not to make the game harder just the passwords could add in something to move the screen

Main Leaderboard db

- · Two fields with each user
- · Password high score
- Message points
- That gives total score
- · How to simplify leaderboard
- Leave that up to us
- Make it simple
- Badges
- By seeing my rank, know where I am in the overall.
- Only badge we need is for the password platformer DO THAT ON THE FLY

Tasks for next week

- Seth MessageBoard set up
- Iffy Db
- Taylor DB SQLite backup
- Small work on the platformer
- Vinish leaderboard

Documentation Dr. Pozefsky will present

• Make sure everyone that needs to know by end of semester

April 3: Meeting with Dan

- Ask Dan which is higher priority
- Message board
- Phishing attacks and don't click on a link
- Create a final HTML page that when you click on the link?
- Tower defense
- Remove the name in the top right ASK DAN

He would put the message board in core functionality and in front of the tower defense Scale of difficulty

• Visual, the advanced level would be bad passwords two common words stuck together with a 1 or ! Because everyone uses that

- Keyboard patterns look good but aren't asdfghjkl or zaq1xsw2 or zxcvbn
- Lower levels 2 words partially leeted

Potentially make bank enough to where he can add to

Troy hunts have I been pwned .com api

April 1: Meeting with Dr. Pozefsky

Game demo

- Remove the name in the top right ASK DAN
- Used contrasting colors
- Change the zxcvbn output on the first to say "centuries to crack!" and then regular on all the other ones

Problems with server

- Server send a note to Allen Forest because there are weird permission issues
- Move from desktop to games.fo.unc.edu folder
- Difference in the web server Comp....:M and Comp..... So maybe that's it
- Problem with webSQL and builds problem with MIME type?
- Diane to set up a Piazza for us on the WebGL things with Nick
- Other groups using GL
- Doctors orders
- Moon Landing

Ask Dan

- Words came up together as Does Hit
- When combined looks like Doe Shit

Multipliers – 5 correct x2, 10 correct x4

Error messages when running game?

- MissingReferenceException
- FileNotFoundException: Could not find file "/passwords.lst"

Where we are and what the plan is for the rest of the semester

• Confirm walk through at 3 pm Friday

Changed header on the game to have the UNC Finance and Operations header

Iftekhar: Database Communications

Taylor: Build and Password differentiation

· Password checker difficult on build

Vinish: Working on levels

Seth: funfacts things and research on tower defense

Ask Dan which is higher priority

- Message board
- Phishing attacks and don't click on a link
- Create a final HTML page that when you click on the link?
- · Tower defense

March 27: Meeting with Dan

Told him our plans for the update

Capitals numbers punctuation all together is the easy strong password creation system

- More numbers in addition to words are better passwords
- Substituting characters with leet speak is NOT as strong these days
- Selecting the bad passwords is sufficient
- We want to emphasize the learning process move up to medium

Went over the Tower Defense tower and attacker combos

Updated him on the sprints

- Platformer
- · Tower defense
- · Message board

May 1 is still the last day

Notify: Wave 2 is 3 coffee house hackers

March 25: Meeting with Dr. Pozefsky

Meeting with Dr. Pozefsky

Game

- Have password substitution be based on the number of substitutions Question to ask Dan
- What does he want to consider bad passwords?
- Must have at least one capital letter and 1 number
- Make a decision on what's good or bad based on the zxcvbn checker

Now played password checker 25 times, on 26 times do you still start with bad passwords?

- As a player it would be boring
- Choosing easy/medium/hard

How are we proceeding at this point?

DB

- Get over SQL hump, shouldn't matter where it is Sprint 4
- DB up and functional for platformer get a more interesting sprite
- Easy
- Medium
- hard
- · Begin tower defense game
- Coffee house attacker sniffing through the things we are typing
- VPN encrypts data and he can't see it anymore
- What else does a VPN protect against
- Over time fewer towers to place down, overall figure out the least amount of towers to protect yourself
- Bare minimum of things people need to do
- Behaviors as well as technologies you install
- Behaviors would be better than technologies
- Upgrades to the tower defense
- Allowing Chrome to remember you
- Fun facts pulled from a database

Sprint 5

· Message Board

Password Platformer

- Choose avatar before playing the game? just get a more interesting sprite Tables
- Game table for each table
- Admin table
- Leaderboard table

Issues we were having

• Updates on the badges

March 6: Meeting with Dan

Showed him the files

• Sso folder for single sign on

Usernames take

- Allowing them to adopt a screen name
- Profile page still has human name in there (maybe on hover?)
- Easily trackable

We can steal the f and o graphic from the f and o pages

Databases

- He said he would expect there to be more tables
- Games table, user table, badges earned table, user history table
- Message board data? like a game table?

Run of our idea of sprints

- This current sprint (finish platformer)
- Fun facts
- Leaderboard
- Next sprint, finish game 1, set up message board
- Last sprint badges and game two

Fun facts – get five in there and get

- Fun fact table?
- Check if onyen is his if so he is able to do things
- One table is the access table this onyen can do these functions Friday he will not be here

• Friday may 1st

March 4: Meeting with Pozefsky

Difficult time getting the server up and running

- · Tried filezilla
- Ftp
- Citrix lab

Have a unc banner at the top? – small white border with a login button

Home screen

- You click on something and it opens the whole thing
- Message and leaderboard
- Modal type

Tables

· Game table for each Game

- Onyen, high score, total times played
- Leaderboard table is a sort on the user table
- Onyen, username, total high score, list of badges
- WE DECIDED ON USERNAME

ASK DAN – should we let usernames be anything? Use actual names? Overwrite pulled name if want?

Badges

- Computing earning and losing a badge
- Shouldn't worry about high performance
- Game list number of people who have played it

COMPLETION OF SPRINT 3 – everything pretty much done

- Next 2 sprints
- Message board
- Tower defense

SPRINT RECOUNT

- 3
- Leaderboard
- Db and server
- Fun fact
- Game 1
- 4
- Message board
- Finish up platformer
- 5
- Game 2 tower defense
- Badges

How do we want database to store information

- Create badges on the fly
- When regenerate leaderboard go and check badges
- Display badge but don't store it anywhere

Display badges on update events (refresh)

Recalculate in account screen

Setting up File Transfer System

Location: \\storage.unc.edu\fo\Groups\FO Comp585 Security\

 $https://docs.google.com/document/d/1Khp2Ed8MuPUmg2PxEfBLuT5_JX8NevWTOlPjK122f5\\ E/edit?usp=sharing$

February 28: Meeting with Dan

Got Citrix Receiver and server set up and running on Non-Mac computers

Fun is the message

- Slightly arcade
- Standard fonts web ish
- Games are pixel art
- ADA compliance Color Contrast Size

ADA compliant – contrast 15% different

Let player choose sprite – character, shapes, gender

February 26: Recitation Meeting with Dr. Pozefsky

Color choices

- White is harsh
- What message do you want to give people?
- Retro?
- Cyber security?
- Comfortable feeling?
- Playful?
- Have colors generated before meeting with Dan
- Tell them the fun facts need to be legit fun
- Statistics

Passing information in to database – give token

- Absolute url
- · Get username
- From game back is going to be through the database Designed Database
- SQLite
- Send a note to Dan at a point where we really need a database List of 100 worst passwords those are your bad passwords
- Maybe different points on how hard they are?
- Want to start at obvious
- Move to making a choice
- Using phrases
- · Collection of random words
- How do we generate them?
- Run through a, e, o, to @, 3, 0
- JUST GET A LIST STORE IT
- Or use an API
- NOBODY USES RANDOM PASSWORDS

Instructions on how to get everything set up in Development section

• ONLY 1 DOCUMENT

Keep updating the design document for the platformer

SPRINT 3

- Procedurally generate platforms
- Put main page up on the server with the DB
- 2 weeks After spring break

Next sprint

Message board

Last sprint

· Tower defense

Objects

- position of an object
- Changing the size of an object in unity
- Position is easy constraints
- Spawn one off of the visual
- All look the same
- Focus is on the password

February 19: Recitation Meeting with Dr. Pozefsky

Jeopardy

• Keep it single player

Message board

- Has some interesting potential
- How to get points
- Click on the link or report it?
- Spreadsheet conditions we want and then confirm them

Ask Dan about the design scheme of the game

- Like white?
- Like the fonts?

Get the game on machine

Defense tower details

• Currency?

- Limitations
- · Timing issue
- Some reason to why position that you put it matters
- Shrinking the number of towers each round?

WebGL

- What unity exports
- Have not heard of browser problems
- Same version of Unity?

DesignDoc

Says it looks good

Password platformer

- Rogue like
- Never ends, but eventually ramps up in difficulty soft levels
- Procedural generation
- Words are going to get harder
- Focus on learning part make sure its not boring
- Multiple platforms one is good and one is bad
- Some time to read them
- Arbitrary amount of time with timer that runs down can stop if you want to
- No zeros points for correct platform and penalties for bad passwords
- · No dying
- ADA platformers relatively flat with clean text on them
- Black and white no problems
- Do some balance
- End up with a negative score get 0 points for playing the game

Start the project after spring break

Presentation on Tuesday – 5 minutes

Unity can go to firebase

Work together with merge conflicts and deciding what to do – when github is happy but the game doesn't work

Badges

- Breadth and depth
- Being on the overall badges
- Number 1 badge, top 5% badge

February 14: Meeting with Client

Met Will – games

Showed him the design

- Says it looks good, we still the account manages
- Talked about our badges
- He wants Top person gets a badge, top 5% people get another badge
- ADA compliant think about whether or not you can see color

Password game

- Original idea platformer where you land on bad passwords and it falls through
- Super Hexagon use passwords instead
- Dan said he liked both
- "take anything make it fun and competitive, people are going to learn"

Research on the engine

- Unity has things built in for 2d and both can use in browser
- Can get data from the game to come to the engine?
- Unity is immediate access is big
- Unreal 3d for a 2d game is difficult

For the jeopardy game

- Randomly choosing categories from x number of input categories
- Is it random order for spare questions for?
- Making them multiplayer ????
- Twist on jeopardy like answer choices choose correctly and it goes to the next question In design LDAP data
- Even if looks complex but has any part of your onyen looks terrible

Confirmed switch with Unity

February 12: Recitation Meeting with Dr. Pozefsky

Update on client

- Need to always rebuild until we get the server up and running
- Alan Forrest waiting on him to set up a Windows Server client with IIS and SQL Server 2019 Our home screens
- An HTML page that is the center which spans out to the different games
- EASY FOR DEVELOPERS TO PLUG AND PLAY
- Framework to allow other people to plug in
- Need to know what need in and out of a game
- Structure

- Each game has some information, grab it, pass it in, when does it returns it
- Count of how many games played/how long game played? UPDATE
- Doesn't matter
- But must define API
- Get started with that mindset this is the vehicle to get started

Games

- Tap tap security minesweeper one
- Edge cases, what would be tapping?
- Jeopardy
- · Security shooter
- Tower defense game

About website

- Get to end scroll bar should get to the end so I know I can't go further
- When click show more on leaderboard remove show more button

Scoreboard

- Always have top ten, and then the user's underneath Game description
- No more than 3 sentences
- Put what you're learning here
- Instructions go inside the game that is branched out

Badges – good on this page to have what badges represent

- Multiple badges choose 1 to display default is the newest
- Badges mean?
- Same icon as games below
- Gold silver and bronze for top 3 is redundant
- Make background all gray
- Change background color of top 5
- Blue, red, yellow for top 3
- Single game badge or badge about how many they've learned
- Badges as a depth indicator
- Include this in API
- Don't want complete explosion of different badges
- One possibility badge icon is one picture for each game color changes based on if you have played a baseline number of times or if you have the same color
- Not sure about only having one
- If there is a max of how many badges doesn't matter on display
- Can't afford to have different actual badges for the same game
- Pop up near overall leaders to explain badge?
- Mouse over on every bade to see what it is? not universal
- 2 rows icons for each game, colors and what they mean

Original design had fun fact, where would that go?

- NEW design on home screen
- Dr. Pozefsky drew on the white board

When I do something good from the message board get points? Yes

- NEED AN ICON FOR THE MESSAGE BOARD
- Opportunities
- Reporting spam/phishing is positive points
- Clicking on it minus points, can never go below 0 though
- Spam vs phishing
- Every message that is a do something could have an action click URL
- Correctly clicking right place to go to check onyen expiration. MC type thing
- When click link want to replace new thing? Or just change all of the message board
- New page seems more effective

Conversation with Dan

- Just html and JavaScript, or unreal?
- Iffy is going to talk to nick about it being possible to pass parameters like user logged in to an unreal game

Decide on goal for next sprint

- Core system and minimum game (simple game)
- Took photo of the new game design and rough schedule for sprints

January 29: Recitation Meeting with Dr. Pozefsky

Notes

- Browser games Unity just know from the beginning
- 2 or 3 games pick a number
- Start with 1, 2 or 3 games per each world
- Don't try to create interface until we create games
- PREVIOUS HIGH SCORE when log in to motivate to do better
- More than a home screen
- Character? seems like no
- Leaderboard in the middle and bubbles on the outside

Onyen authentication

- · Shibalif
- Get help finding documentation

What server to run on? If it's his server then getting access sign on will be easy

Home screen look like

• More of the topics visible

- Leaderboard with tabs for each world? use the upper 2/3 to display badges or leaderboard after click on a world
- Google search
- Hover over other worlds and put facts like for phishing never click a link
- "If the first page is boring, you lose 'em"
- NOT TO MAKE IT LOOK LIKE ANOTHER WORK SITE
- Space theme
- Fantasy theme
- At least go back to the site because it was something to look at
- What emotion do you want them to feel?
- Pozefsky is not big on dark background or GIFs
- There's enough information that coming to the page has taught me something
- DON'T STAY LOGGED ON, something like that DIFFERENT EVERY TIME OTHER NOTES
- Some sort of prop to throw on to change
- Like Disney
- Nicks website has good tutorials of how to learn them
- 2 games and pair up? Or 4 and one per game THINK ABOUT IT
- Start with 1 or 2 games and pair up

GAME IDEAS

- Platformer game of jumping on good passwords
- Need some type of character could be like different shapes or something
- Kahoot quiz type game where faster response = faster score
- Dig game
- Minesweeper type game
- Mouse over them to get the actual text
- No numbers? or get people to play both ways
- Easier minesweeper could ignore the notes or could ignore the hints
- Force a decision every time? might get old
- Could do randomly?
- Could figure out ratio so really hard to do without using the hints
- Like 9 by 9 with 25 mines
- Maybe solve a problem to get the number?

Design Document get a little crisper

SPRINT 1:

- Go from home screen to smaller world screens
- Decision of HTML page and then go to minigames from there
- Or could be the start of a game
- SO MAIN SCREEN AND MOVING TO 1 game
- Platformer
- Unreal installed and connected to github
- Branch per person with promotion to master and retrieve other code

Where should the documentation be?

• Design document to grow

January 28: First Meeting with Dan Barker

This morning, we met with our client for the first time to discuss his ideas for the project and to ensure that we are on the same page before turning in the initial concept design. At this meeting, we took the following notes:

"Goalie" – land side of security

1400 desktops and the users that use them

- Normal adults who don't think about security
- Get them to think about security a little more
- DON'T CLICK LINK

Ordering of equipment/tracking/wiping of software

PEOPLE/USERS

- Parents or Grandparents not highly technologically educated
- "get to not trust the internet but still do their jobs"
- Some on desktops all day, some use sparingly in jobs; also others in field using iPad
- Check email on iPad
- Lots don't know email can be source of spam (e.g. see IMPORTANT email, just click on attachment w/o thinking)
- Making the computer clean and sanitary not as excellent
- Primarily English speakers
- Some Kareni (sp?) but not required to target them
- Enough English to get by not target supervisors are and they speak English
- Very few Spanish speakers
- There are differences in skill level and prioritization about what to learn across departments and even across users in a department

PRIORITIZATION OF TOPICS

- Threats to the customers most likely to happen are Bing clicking the first few links and getting that trash
- Ex: MPEG file => looked for an MPEG player => MALWARE
- Following a link
- CRITICAL THINKING ON SHOULD I FOLLOW THE LINK
- SPAM
- FALSE ADVERTISING LOOKING AT
- "As many we can get to would be great"

Accessing things on tablets

Need the game to be fun and not super trivial

• Gamification very important – we want to teach them, but at the same time want to keep them engaged to learn the information

Any Previous Idea of Games

- No.
- Likes Fitbit competition

Hire 5 people a week and lose 5 people a week

- Most of them around our age
- Large turnover rate make it so that things are quickly learnable

OUR GAME IDEA

- Worlds with different topics
- Platformer game jumping on good and bad passwords
- Different mini game that teaches you different things
- Teach people to learn what VPN is and encrypting disc
- Minesweeper game when leaving desk
- Social score HIGHLY COMPETITIVE CUSTOMERS
- "Drive the usage" trying to outscore one another
 - Scoreboard per world and TOTAL
- Incentives with score? budget is 0
- If complete the 15-question survey get to use the hello sign in on the computer thumbprint in
- Use points to buy things for the avatar?
- Waze
- LOADING SCREEN tells facts about good computer safety
- ACCOUNT IDEA linked with onyen single sign in
- 5 Macs and 1400 PCS browser based would be best but if not PC
- 250 iPad expected 500 in the next 3 years

Core Tool – score and social aspects

- Jump to mini games and go back
- IMPORTANT PART
- Subgames are extensible
- Important for future teams
- Primary criteria: extensibility for future teams

DISCOURAGE SOFTWARE INSTALLS IN GENERAL

• Tablets game different? Maybe none at all

"Make it pretty, make it interesting, make it businesslike"

Communication

- Email and Teams 8:30-5
- Just Teams after 5

January 22: Recitation Meeting with Dr. Pozefsky

During this meeting, we went over initial ideas prior to our first meeting with our client. We came up with the following notes:

Questions

- What skills do people have? (as it relates to games, computer security skills)
- Shooting things?
- Making quick movements on the computer?
- Language skills? i.e. how solid is English
- Who are we trying to teach?
- o Do they know what a VPN is? Encryption?
- What is most important to the client?

Ideas

- Multi-part game gain points and beat high scores
- Tetris type or space invaders
- Good and bad passwords
- Quiz on good practices
- Doodle Jump jumping on good passwords jump (what happens if jump on bad passwords?)
- Platformer (like Mario)
- Biggest thing which comes from this is idea of worlds if you want an easy one you have to choose a new topic
- Each world is a different topic
- Put up one password Choice
- Acceptable to use for
- Acceptable change to the password

Notes

- How to take care of computers and accounts
- How to recognize malware
- Incorporate both or focus on one or the other, or doing rounds that incorporate both
- How do we get the social aspect in?
- Scoreboard?

• Same mechanism – when you get better at the mechanism, you get to focus more on the content

During this meeting, we also finalized team roles (captured on the home page). Action items are as follows:

- email the client about meeting early next week and setting up a standing meeting time
- adding team meeting times to the website
- goals for next week on Trello and website
- concept and initial design are due at next recitation (1/29)

Week of January 20

This week focused on building this website and looking forward. Sadly, we are unable to meet with our client this week, but we are planning to meet and go over preliminary design decisions for the first sprint of the project.

Week of January 13

This week, we heard pitches from various clients before making a spreadsheet to rank our choices. We got matched with Dan Barker to make a Computer Security game, and we are excited for the semester ahead!