<u>Github Link</u>: <a href="https://github.com/mixemer/email\_spam\_database.git">https://github.com/mixemer/email\_spam\_database.git</a> Github Page: <a href="https://mixemer.github.io/email\_spam\_database/">https://mixemer.github.io/email\_spam\_database/</a>

\*\*\*NOTE: We are using a framework called svelte, and even though it works with Github Pages, svelte routing gives errors on GitHub. For example, if you refresh the page it says 404 Not Found. If you open the link again, the page will work.\*\*\*

### **Team Breakdown for Website:**

- 1. <u>Mehmet:</u> Set up svelte, worked on the homepage. Including the header component, and the table database, and the 404 Not Found page.
- 2. <u>Lubna:</u> Worked on the email more page. Included working on the comment 22section, displaying contents of the database, and adding comments.
- 3. <u>Fardeen:</u> Created the ticket page, included working on the ticket form, form validation, and added sound feedback. Created the FAQs page, which was originally assigned to Cesar.
- 4. <u>Cesar:</u> Responsible for creating the FAQ page but ended up not contributing.

\*All group members contributed for the in class labs.\*

# **Needfinding Lab**

- 1. Demographic (20+ of age):
  - a. Students (Fardeen)
  - b. NYC citizens
    - Elderly (Lubna)
    - Immigrants (Mehmet)
  - c. Faculty member (César)
- 2. Identify (at least) three "types" of individuals:
  - a. <u>Older people:</u> Are more likely to be targeted by phishing emails because they don't have as much experience with phishing.
  - b. <u>Students</u>: Are more desperate for jobs, and internships are more likely to click on emails that offer a good offer. Less likely to click on phishing emails because they're more familiar with technology.

c. <u>Recent Immigrants</u>: More likely to be scammed based on immigration status, taxes, insurance, because they're not familiar with U.S

### 3. Sketch a plan:

- a. Lubna
  - Where: At work:)
  - When: During the colleague's lunch break
  - How: Analyzing their activities on the phone, and observing their actions. Interviewing them after observing, asking questions why they were frustrated, or confused.
- b. <u>César</u>
  - Where: On campus.
  - When: Class hours.
  - How: In person interview.
- c. Fardeen
  - Where: Online.
  - When: When the participant isn't busy.
  - How: Voice or video call on discord.
- d. Mehmet:
  - Where: At home
  - When: At 10 pm
  - How: In-person analyze and ask questions
- 4. Conduct the contextual inquiry: (Report)
  - a. Lubna
    - The teacher, Ms.Fandacone (58) has agreed to be observed during her lunch break and be interviewed after I'm done observing her. She sits down at her desk to eat her lunch, and starts going through her phone. She's watching videos on facebook, she gets interrupted with a call, she picks up and says "..Hello?" She sighs, and hangs up and continues to watch videos. She's trying to find a good angle to place her phone and be able to eat, but I see her struggling. Once she finished eating, she went on her computer and started looking through her emails. While she scrolls through her email, she starts talking to

another teacher about phishing emails. The teachers discuss how it's harder to distinguish between phishing emails and legitimate emails, especially since they're coming from "schools.nyc" emails. The teacher nods vigorously, "yes oh my god these emails are getting worse by the day". The teacher goes back to replying to her emails, while her lunch break ends.

#### • Interview:

- 1. I noticed you had a call during your lunch, but you hung up immediately?
  - a. Yes, well it was a spam call. The person on the other end was speaking chinese.
- 2. When you were trying to adjust your phone, did you wish there was something that could hold your phone and play your videos on a screen?
  - a. I don't know about that, but I usually find a textbook to lean my phone on. It's not that big a deal.
- 3. You mentioned you were getting scam/phishing emails? How do you know if they're scam or not?
  - a. It's becoming harder to tell, but some of them are pretty obvious. If they offer you money, I usually figure they're phishing.
- 4. What is your plan of action when you suspect an email to be spam?
  - a. I used to click on the links, but now I immediately delete it and report it. However, there have been times when I've deleted legitimate emails, and couldn't get those back.
- 5. That sounds horrible, how did you know that those emails were legitimate?
  - a. The sender either reached out to me personally, or a colleague had a similar email. But by then it was too late to take back the report. Ever since, I've started to become hesitant to delete these emails, but I know it's a good practice to delete them.

- 6. How often do you get these phishing emails?
  - a. Too often honestly, if I had to give you a number, I'd say at least 14 a week now. And now they're coming from fellow colleagues' emails, so it has become even more confusing.

### b. César

- Every time the user sees a suspicious email they delete it.
- One of the ways to detect possible spam emails is by looking at the address. If the user notices the address is not familiar, then that is a sign of possible spam.
- Another way the user detects suspicious emails is by finding clues in the text of the email (ex. Job offers, unexpected rewards, etc.).

#### c. Fardeen

- A friend & student, Jason Wood (20) agreed to share their screen and camera on Discord and consented to an interview afterward.
- Observation process:
  - 1. Jason checks his discord group chats and servers for any new messages and pings and replies to them.
  - 2. He then gets on his phone to check Instagram. He browses through his feed and sends a message to a contact.
  - 3. He then closes the app and opens TikTok, browsing his feed. He has a couple of laughs while browsing.
  - 4. He then looks back at his desktop due to getting a notification in a group chat. He responds.
  - 5. On his desktop, he opens Chrome and checks Gmail. He said he was okay sharing his emails with me.
  - 6. On Gmail, he checks his emails and skips a couple of them. He clicks one, then quickly goes back to his email list.
  - 7. He opens an email and actually thoroughly reads it this time.

- 8. He then gets on Outlook for any new emails. He clicks the first email and doesn't speedread it.
- 9. He goes back to his email list on Outlook and skips a couple of emails, and lastly gets off. I thank him for his time.

#### • Interview:

- 1. Me: "I noticed that you use both your desktop and your phone to check your social media platforms. Any reason for that?"
  - a. Jason: "Well, certain apps are meant to be viewed on certain devices. Apps like TikTok and Instagram are meant to be used on phones, while Discord is typically used on desktops."
- 2. Me: "Do you get messages often? I've noticed that you checked both Discord and Instagram and replied to several messages."
  - a. Jason: "Yeah. I get hundreds of messages daily"
- 3. Me: "What type of messages?"
  - a. Jason: "Mainly from relatives, friends, and people from my group projects."
- 4. Me: "I'd like to shift my focus to your emailing platforms. Any reason as to why you used both Gmail and outlook rather than only one of them?"
  - a. Jason: "Yes. I mainly use Gmail to check for job offers and collaboration purposes. I use outlook to view school-related stuff."
- 5. Me: "How often do you check your emails?"
  - a. Jason: "Once or twice a day."
- 6. Me: "I also noticed that you tend to skip emails that you haven't read. Any reason for that?"
  - a. Jason: "I've gotten some of the same emails before, so I already know what's going to be on it. I also skip emails that look suspicious. Sometimes I click it just to show that I read it."

- 7. Me: "What do you mean by suspicious? Like spam emails?"
  - a. Jason: "Yes, also phishing emails. You know, those free money scams and fake relief funds."
- 8. Me: "How often do you get said emails?"
  - a. Jason: "Often. Probably 3 or 4 times a week."
- 9. Me: "How easily can you tell apart scam emails from legitimate ones?"
  - a. Jason: "Pretty easily."
- 10.Me: "What do you do when you aren't sure if a scam email is legitimate?"
  - a. Jason: "I click it. I check the subject, header, and footer of the email first. If it looks suspicious, I go back. If it doesn't, I read it."

### d. Mehmet

- The user does not check his email often.
- His English level is low, even though he can communicate with others using basic English, he has a really low level of written/reading english.
- He has a hard time identifying which email phishing/spam or not.
- Even though he heard that he should not click on links on email, there have been times he has clicked on links and filled forms which let more phishing/spam emails.
- Most emails he gets are about immigration and insurance.
- 5) Identify some core needs of your demographic and conduct task analysis using the questions below

Needs we identified based on the contextual inquiry:

- Checking if emails are spam, catching spam emails
- Database that includes all the spam email addresses

## Task Analysis

❖ Who is going to use the system?

- ➤ Our target audience will be students, faculty, and NYC citizens who use emails, and are victims of phishing and scams.
- What tasks do they now perform?
  - They open their email, and read emails not knowing if the email is a scam or not. The doubt can lead to them opening their emails and being victims of phishing.
- ❖ What tasks are desired?
  - > To be able to check if the email is a scam or not, without having to doubt and clicking on potential phishing links.
- ❖ How are the tasks learned?
  - They accidentally click on a phishing link, and put in their personal information on a fake website.
- ❖ Where are the tasks performed?
  - ➤ On people's phones, personal computers, tablets, etc.
- ❖ What's the relationship between customer & data?
  - ➤ Private. Customers don't want their data to be taken away.
- ❖ What other tools does the customer have?
  - ➤ Previous experience. Some users may be able to detect phishing emails simply by viewing the subject line.
- ❖ How do users communicate with each other?
  - ➤ Users send emails to each other.
- ❖ How often are the tasks performed?
  - This depends on a lot of factors such as demographics, activeness, and experience. Students would check their emails way more often than the elderly.
- ❖ What are the time constraints on the tasks?
  - ➤ Depends on the email. Some emails require urgent action to be taken, while most do not.
- ❖ What happens when things go wrong?
  - ➤ Data can be taken away and assets can be lost.

### Questions to the users:

- What do you do when you see a suspicious email?
- How do you know the email is spam?

- 5. Analyze new and existing tasks that your application enables. Describe three to five tasks in moderate detail that users will perform with your top application idea.
  - a. Task 1: Searching the database for a scam email.
    - A responsive search bar will trim the database as you search an email.
  - b. Task 2: Adding an email to the database.
    - Clicking a "Report" page in the navigation bar will open a report page that will allow the user to add a scam email to the database.
  - c. Task 3: Clicking a database record to see comments
    - Example: Let's say someone clicks the 4th record in the database. They will be taken to a new page and can see the list of comments.
  - d. Task 4: Adding a comment to a scam email
    - User clicks on a record, inserts their name and comment, then presses submit.

### **Personas & Scenarios**

Target Users	Gender	Age	Interests	Experience
Students	M/F	19-30	Internships, Grants, Money	Tech Savvy
Immigrants	M/F	20+	Inmigration Status, Tax Related Information, Insurance Fraud	Not much experience with phishing, more vulnerable
Faculty Members	M/F	Early, mid 30s	HR Department. Insurance Fraud	Scam/phishing related to work, checks emails often

Elderly	M/F	60+	Retirement funds, life	Vulnerable to
			insurance	scams, more likely to click on email links

# Demographics: (Create Persona for each)

- 1. Student Fardeen
- 2. Immigrant Mehmet
- 3. Faculty Member César
- 4. Elderly person Lubna

# **Faculty Member**

Name	Details	Goal
Rosario	She's 36 years old. She is a Spanish Professor at Brooklyn College. She has a family with two kids and a partner. She is teaching both online and in-person classes. She is very busy with her work and with taking care of her family. She is a little bit impatient but at the same time she doesn't want to miss anything that is happening around her.	Because of her work and busy life, she is always connected and receives a lot of information through her email. She has a rule about emails, everything that could look slightly suspicious she deletes it. Because of that she started missing a lot of important notification both from her job and from her kids' schools. She wants to find a way to be more sure about which emails to delete, because her current method is turning out to be counter-productive than useful.

# Student

Name	Details	Goal
Sheyla	She's 20 years old. She is an undergraduate and Computer Science major at Brooklyn College. She's a busy student, taking 5 classes. Sheyla likes browsing the web often and loves watching YouTube videos.	She is looking for internships to build experience and establish good relations with people in the industry. As a result, she checks her email every day for any job opportunities. She knows how to spot phishing emails easily, but she occasionally gets an email where she isn't sure if its a scam. She wants a way to check if the email is legitimate or not.

# **Elderly:**

Name	Details	Goal
Morris Wayland	58 years old, female, born in the U.S.	Morris works at a school, and is planning to retire soon. She keeps getting emails about retirement funds, and insurance. Some of these emails are spam while some are legit. She's tired of examining each email, and wants to find an easy way that can help her distinguish between which email is real and which is a phishing email.

# **Immigrant:**

Name	Details	Goal
Ivan Smirnoff	35 years old. Male, from Russia. Cashier at a bakery in Brooklyn. Makes 15\$ per hour, works 60+ hours a week. He loves music, plays some instruments when free. Because of too much work, he has not found his love, and lives with 4 roommates. He loves Russian food and grocery which he uses NetCost for.	He is in the process of getting his immigration documents done and getting a green card. It has been 4 years he has been waiting.  He gets many phishing emails about immigration and wants to identify phishing/spam emails better.

### Scenario#1:

Ivan has recently immigrated to the U.S, he has been volunteering at an elementary school near his home in order to practice his English without wasting money on lessons. One of the teachers enters the building, and seems frustrated at her phone. Ivan, knowing the feeling, walks up to her and asks, "Hey Morris, you look a bit worried there, is everything okay?" Morris replies, "Ivan, it's been a while since I saw you around! My niece set up an email for me, but it has been a complete nightmare. I keep getting these emails about retirement funds, and I click on the little blue words, but I realize that they're just scams!" Morris sighed frustrated. Ivan laughed, "Trust me Morris, you're not the only one. Everytime I open my email I keep getting these emails about how my immigration has been processed. They ask me to click on a link to find out when I'll get my green card. I'm so desperate I keep falling for it..." Morris looked shocked, "...how is this so common?" Ivan felt as frustrated as Morris looked, every day he got these emails and it was upsetting for him. If only there was a way to check if these emails were scams or not.

### Scenario # 2:

Sheyla is at college walking from one class to another. She's trying to find the location of the new classroom. During the last class her Professor sent her an email with the location of the new classroom. Sheyla opens her smartphone to open the email app. Once again, she sees a long list of new emails that might or might not be legitimate. Scrolling down, and opening several emails, she finally finds what she wants. Coincidentally, Professor Rosario is walking down the hallway where Sheyla is. Sheyla apologies to her professor for running late to her class. She explains to her professor the situation with her email, and how difficult it can be to tell whether an email is authentic or not. Professor Rosario nods. She empathizes with Sheyla, Rosario has similar problems with her email accounts. Rosario tells her student how frustrating it could be to find out how many scams you can get from one's email.

## **Design Process**

Our website will lookup a locally created database of common phishing and scam emails. The user will be able to input an email to check if it's a scam or not. They will also be able to contribute by adding suspicious emails to the database and sharing their stories related to the scam. The main purpose is to prevent people from getting phished.

<u>Main problem:</u> The website is trying to solve the increasing rise of users falling for phishing and scam emails.

### Problem(s):

- 1. Users cannot differentiate between legitimate and phishing/scam emails. Demographics affected: Students and people with less experience online, such as the elderly. Solution: The user will be able to input an email to check if it's a scam or not.
- 2. Some users don't know what to do when they see a phishing email. Demographics affected: Mainly the elderly, however, some phishing emails may not look suspicious at first. (So basically anyone) Solution: The website will have information about what users should and should not do when they get scam emails.

After interviewing people from our needfinding lab and hearing their stories about how they were scammed through their emails, we felt a personal connection because we have been in that position as well.

Therefore, we thought that it would be useful to have a website where everyone can easily find out if an email is a scam or not, and to be able to get help. That is why we think our website is an important project.

# Storyboard

## Storyboard (5 frames)

- <u>1st</u>: Someone sitting on a computer
- 2nd: Person gets a scam email, is frustrated, and doesn't know what to do
- <u>3rd</u>: Friend of someone next to the person will inform the them about our website
- 4th: Person using the website and being happy because they are able to identify the email or not
- <u>5th</u>: Person who is using the email is going to thank the other person saying that it is a life (or money!) saving website



# What our site accomplished?

One task that will be accomplished via our website is to search the database of common scam/phishing emails. If they cannot find the email on the database, they can send us a ticket that contains the possible phishing email. The ticket will be sent to us and we will be able to identify if it is a scam or not.

#### Wireframes

Link to Wireframes and Mock-Up:

https://www.figma.com/file/ITSLyaZBAPUuRgJWzdarWh/Wireframe-for-database-website?node-id=2%3A43

Link to Figma Prototype:

https://www.figma.com/proto/ITSLyaZBAPUuRgJWzdarWh/Wireframe-for-database-website?node-id=55%3A41&scaling=scale-down&page-id=0%3A1&starting-point-node-id=55%3A41&show-proto-sidebar=1

Wireframe template (see figma.com)

- Webpage 1: Home Page
  - Decision for which wireframe we will be using: <u>Home Page #1</u>
- Webpage 2: Email more
  - Decision for which wireframe we will be using: Email More#1
- Webpage 3?: Ticket page
  - Decision for which wireframe we will be using: Ticket Page#1
- Webpage 4?: General Information About Scams
  - Decision for which wireframe we will be using: <u>General Information#1</u>

# **Discussion on Design Choices:**

- For the home-page we wanted to have a header where the user can search for the specific email. We had different ideas of how we wanted to portray the database, an idea was to have a table view where as someone else suggested to portray each email information on a card-like component. We ended up deciding that the table was a better option, it's *easier to read and navigate*. It gives a cleaner look compared to the card, which looks a bit congested. Another issue was the need for the search button, since users can simply type and search for their email. However, we opted to add the search button, since it gives users a *sense of control* over their actions.
- For the email-more page, we had multiple ideas. Having the header was agreed universally for the sake of *consistency*. The placement of the comments, and adding additional comments was the issue, we had options to display the comments first, and then adding comments at the bottom. The second option was to report comments in one corner, and view comments in

the other. This felt a bit fancy, but we didn't think it was completely *accessible* for users, because the reporting block felt very limited. And since we were showing the comments twice, it felt redundant. The third option felt congested, even though it was neater than the second option. There was a lot going on in the page and could easily confuse the user. The first option felt the best for our interface, it was clean and gave enough space for the user to understand what was going on.

- The ticket page was a form, our main issues were the placement of the send button and if we'd like to center the longer input. After thorough discussion, having the send button in the center felt like the best option, considering that it would stand out to the user, and grab user attention. Having the input in the same formatting, and not centering it was the better option since it was *consistent* with the other input types. We favored *consistency* to accommodate our users.
- We also decided to add *audio and visual feedback*, when they click on a submit button of a form they'll receive a negative sound and an error if they don't fill fields. And if they do, they'll hear a positive note, and see a successful message at the bottom.
- They can *navigate* easily throughout the website with the help of the menu on top in the header. Everytime they click on the search button, it'll bring them to the homepage.
- The General Information page was mostly information, but we wanted to present in such a way that it didn't overwhelm the users. We thought of using pictures, or simply having a question answer pattern. It still felt congested, and hard to comprehend, which is why we opted to use a drop down style q&a. The first option was the best choice, we had questions with an arrow, and the user can click on the question they're most curious about and find the answers.

### Krug Test

### Tasks:

- 1. Check if the given email address, "uncled@gmail.com" is a scam or not.
- 2. Can you find the type of scam that is the given email?
- 3. Can you find the email that has the least amount of number of reports?
- 4. Can you view some of the comments for the email of "uncled@gmail.com"?
- 5. Can you type a comment for the "uncled@gmail.com"?
- 6. Can you report an email called "scam@gmail.com"?
- 7. Find the first occurrence of "scam@gmail.com"
- 8. Find a FAQ about scams.
- 9. When you're on a different page, search for "campbell@me.com".
- 10. Can you go back to the home page?

### Patterns on User Behavior:

Write down the 3 patterns of user behavior that you think it is most important to support in your group website.

- 1. Lubna
- 2. Mehmet
- 3. Cesar
- 4. Fardeen
  - a. Satisficing
    - i. We want to make our website visually appealing and display relevant phishing email searches.
  - b. Spatial Memory
    - i. We want to follow the same conventions of other searching websites. This includes having a search page entirely dedicated to searching, and having familiar components placed in the correct spots. (Search bar being at the top, button being adjacent to it)
  - c. Response Time
    - i. We want our website to load search results and the other webpages fast.

Discussion	
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### **User Evaluation:**

Ask your partner to "scavenge" around the site to find the answers to your questions. Take note of any usability concerns/problems that you notice about the site.

1. Fardeen

a. Evaluating Deeon St Jean from Group 7. (A person was absent from Group 1.)

### b. Observations:

- i. The user doesn't start off by using the search bar for task #1. Rather, he looks at the list first to find the email.
- ii. For task #2, the user clicks on the record containing the email to view the scam type, rather than viewing the field on the table.
- iii. For task #3, since the table was already sorted by the number of reports, the user went to the second page to find the email with the least number of reports.
- iv. For task #4, the user clicks the record to view the comments, as expected.
- v. Task #5 goes as expected, the user does not input a name & email but it still works as an anonymous user.
- vi. For task #6, the user goes to the table and goes to the record containing the email (rather than searching it), then clicks the email, then clicks the report button. However, he forgets the email so he has to go back.
- vii. For task #7, the user goes to the email on the table rather than using the search bar, then clicks it to view the number of occurrences.
- viii. Task #8 goes as expected, the user clicks on the FAQs link at the top and views a FAQ.
  - ix. Task #9 goes as expected, the user searches an email on a different page.
  - x. Task #10 goes as expected, the user goes back to the home page.
- c. Discussions on usability concerns: Page number on search page. The user did not know that there was more than 1 page until he scrolled down. He had no problem with the tasks.
- d. What I personally learned and gained from this exercise:
  - i. Well, I learned that personas and scenarios from a lab that we've done earlier actually helped. Putting yourself in the user's shoes beforehand definitely makes a website better.

ii. That the smallest things can be improved. For example, we could improve the report page by adding placeholders.

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- a. Evaluating Yixiong Cao from Group 1
- b. Observations:
  - i. Did not see the search field at first.
  - ii. Liked the sound and toast appearing at the bottom when commenting
  - iii. Had hard time understanding First Occurrence
- c. Discussions on usability concerns:
  - i. Search field could be more visible
  - ii. Did not know that there is a filter option on the table
- d. What I personally learned and gained from this exercise
  - i. There is a learning curve with every website, the person who I interviewed did a lot better after the second time. It felt more natural.
  - ii. As the designers and the coders of the website, we tend to think some functionality is visible enough however everyone is different and might not do what you want them to do.
  - iii. It is best to make sure you the interviewee is calm and focused while doing the testing. Otherwise he/she might miss stuff.
  - iv. There are

e.

### 3. Lubna

- a. Evaluating \_\_\_\_\_ from Group 1
- b. Observations:
- c. Discussions on usability concerns:
- d. What I personally learned and gained from this exercise

#### 4. César

- a. Evaluating Alexa from Group 1
- b. Observations:
  - i. Task #1: The user immediately found the search bar. She was able to successfully find the given email.

- ii. Task #2: She was able to find the type of scam by looking at the top of the chart with the list of emails.
- iii. Task #3: By looking at the arrow in the "Number of reports" tab, she realized that the emails were easily sorted by number of reports. She clicked on it a couple of times until noticing that the smaller numbers were on top.
- iv. Task #4: She struggled to find the comments. At first, she thought there were none. Then she realized she could click on each row to get more information about each email.
- v. Task #5: She successfully typed a new comment, and was able to find the "Add a comment" button.
- vi. Task #6: She struggled to find a way to report a new email. She quickly went back and forth from the "Comments" page to the "Home" page without finding a way to add a report. A moment later she spotted the light-gray tab on the upper-right corner that says "Report."
- vii. Task #7: She successfully found the First Occurrence date of the given email in both the "Home" and "Comments" pages.
- viii. Task #8: She successfully found the FAQs.
  - ix. Task #9: She was able to find another given email using the search bar in the FAQs page.
  - x. Tast #10: She successfully went back to the "Home" page.
- c. Discussions on usability concerns:
  - i. Overall, it was a smooth and easy test. The user was able to complete all the given tasks. Only a couple tasks took her a little bit of extra time, but she still found the way to complete them.
  - ii. One important feedback was to highlight the three options located on the upper-right corner of the page (Home, Report, and FAQs).
  - iii. The "+ Report" button located at the "Comments" page didn't seem too obvious. The user gave it a glance, but didn't realize that the function of the button was reporting a new email instead of something related to the comment section. That button could be moved to the homepage or should have an

explanatory introduction of what it does. It could be something like: "If you know any spam email that is not in our list YOU CAN ADD IT!").

- d. What I personally learned and gained from this exercise.
  - i. I learned that the user is the person that can give you the best feedback in terms of usability.
  - ii. From the designer's perspective, we can think our website is 100% intuitive, and that every button's function seems clear. However, that is not always the case. I think it is important to define which functions should go in each page, and which ones can be global functions.

### **Evaluation Techniques**

As a group, choose a task that is comprised of at least 2 steps that can be carried out using your site. Your partner will use this to conduct a cognitive walkthrough of your site. Also identify another 2-3 tasks that can be carried out on your site.

\*We will be partnering with group 8.

### List of 5 tasks to be tested

Task 1: Add a comment to "fake@gmail.com"

- Step 1: Find the email in the database
- Step 2: Add a comment

Task 2: Create a new report.

- Step 1: Go to the report page.
- Step 2: Fill out the form
- Step 3: Press "Send".

Task 3: Type the first comment of your newly created report.

- Step 1: Search for the email that you reported & click it
- Step 2: Add the first comment.

Task 4: Find a FAQ about scams

- Step 1: Go to the FAQ page
- Step 2: Look for the FAQ about scams

Task 5: Search for "scam@gmail.com" on a different page and add a comment.

- Step 1: Go to any page that isn't the home page.
- Step 2: Search for the email.
- Step 3: Add a comment

#### 1. Fardeen

- a. Cognitive Evaluation with <u>Abrar</u> from group 8 (email: abrarfahim100@gmail.com)
  - i. Task picked: 1) Add a comment to "fake@gmail.com"
    - 1. Step 1: Find the email in the database
      - a. Question 1: Is action visible?
        - i. Answer: Yes
      - b. Question 2: Did the user recognize the correct button to do the action?
        - i. Answer: Yes
      - c. Question 3: Was the UI visible enough?
        - i. Answer: Sort of. The search bar wasn't visible.
      - d. Question 4: Did the user understand the feedback given by the website?
        - i. Answer: Yes.
    - 2. Step 2: Add a comment to that email
      - a. Question 1: Were you able to navigate to the task?
        - i. Answer: Yes.
      - b. Question 2: Did you receive any feedback for adding a comment?
        - i. Answer: Yes.
      - c. Question 3: Was the UI visible enough?
        - i. Answer: Yes.
      - d. Question 4: Did you use the search bar?
        - i. Answer: No.
- b. Heuristic evaluation:
  - i. Task 2: Create a new report.
    - 1. 0, not a problem. Very visible.
  - ii. Task 3: Type the first comment of your newly created report.
    - 1. 2, minor usability issue. User didn't use the search bar, rather, he went to a new page.
  - iii. Task 4: Find a FAQ about scams
    - 1. 1, minor cosmetic problem. Scroll bar could be fixed. Visibility violated.

- iv. Task 5: Search for "scam@gmail.com" on a different page and add a comment.
  - 1. 0, no problems. Used the search bar.
- c. Usability problems found and suggested solutions
  - i. Search bar isn't visible enough, so they recommended making it darker.
  - ii. FAQ page was hard to navigate, and could fix the scroll issue.
- d. Partner's evaluation (I was sent this)
  - i. Abrar:

A. User signs in

Yes

Yes

Yes

Yes

Yes

Yes

Yes

Yes

B. User upload files

user control and freedom

Rating: 1 - Cosmetic problem fix in time

- C. User uses the message feature
  - 1. visibility of system status

Rating: 3 - Major usability problem

The submit button does not work. #3 give any visible feedback

- D. User learns more about the website
  - 1. Visibility

Rating: 1 - Minor cosmetic problem

When the user clicks Ezproof it goes back to the original webpage but without the headers

#### E. User deletes files

1. Visibility

Rating: 3 - Major usability problem

Once submitted the webpage only shows what had been uploaded and there is no delete button. The user needs to go back to login and then click upload and then the user can delete.

## 2. Mehmet - Evaluated by Gamal

- a. Cognitive Evaluation:
  - i. Task picked: 2) Create a new report.
    - 1. Step 1: Go to the report page.
      - a. Q1: Is action visible? Yes
      - b. Q2: Did the user recognize the correct button to do the action? Yes. The add comment didn't look like the button
      - c. Q3: Was the UI visible enough? Yes
      - d. Q4: Did the user understand the feedback given by the website? Yes
    - 2. Step 2: Fill out the form
      - a. Q1: Is action visible? Yes
      - b. Q2: Did the user recognize the correct button to do the action? Yes
      - c. Q3: Was the UI visible enough? Yes
      - d. Q4: Did user understand the feedback Yes
    - 3. Step 3: Press "Send".
      - a. Q1: Were you able to navigate to the task? Yes
      - b. Q2: Did you receive any feedback for adding a comment? Yes
      - c. Q3: Was the UI visible enough? Yes
      - d. Q4: Did you use the search bar? Yes

- b. Heuristic evaluation: (Evaluate each task)
  - Task 1: Add a comment to "fake@gmail.com"
  - Step 1: Find the email in the database: 0
  - Step 2: Add a comment: 0
  - Task 2: Create a new report.
  - Step 1: Go to the report page. 0
  - Step 2: Fill out the form. 0
  - Step 3: Press "Send". 1 It overflows on the screen.
  - Task 3: Type the first comment of your newly created report.
  - Step 1: Search for the email that you reported & click it. 0
  - Step 2: Add the first comment. 0
  - Task 4: Find a FAQ about scams
  - Step 1: Go to the FAQ page. 0
  - Step 2: Look for the FAQ about scams. 0
  - Task 5: Search for "fake@gmail.com" on a different page and add a comment.
  - Step 1: Go to any page that isn't the home page. 0
  - Step 2: Search for the email. 0
  - Step 3: Add a comment. 0
- c. Usability problems found and suggested solutions:
  - i. The "Add comment" didn't look like the button
  - ii. CSS for comment page,
- 3. Lubna Evaluated by Meggie
  - a. Cognitive Evaluation:
    - i. Task picked: 3) Type the first comment of your newly created report.
      - 1. Step 1: Search for the email that you reported & click it
        - a. Question 1: Is action visible? Yes

- b. Question 2: Did the user recognize the correct button to do the action? 1 change color
- c. Question 3: Was the UI visible enough? Yes
- d. Question 4: Did the user understand the feedback given by the website? Yes
- 2. Step 2: Add the first comment.
  - a. Question 1: Is action visible? Yes
  - b. Question 2: Did the user recognize the correct button to do the action? 1 - change comment button
  - c. Question 3: Was the UI visible enough? yes
  - d. Question 4: Did the user understand the feedback? yes

### b. Heuristic evaluation:

- Task 1: Add a comment to "fake@gmail.com"
- Step 1: Find the email in the database: 0
- Step 2: Add a comment: 0
- Task 2: Create a new report.
- Step 1: Go to the report page. 0
- Step 2: Fill out the form. 0
- Step 3: Press "Send". 0
- Task 3: Type the first comment of your newly created report.
- Step 1: Search for the email that you reported & click it. 0
- Step 2: Add the first comment. 0
- Task 4: Find a FAQ about scams
- Step 1: Go to the FAQ page. 0
- Step 2: Look for the FAQ about scams. 0
- Task 5: Search for "scam@gmail.com" on a different page and add a comment.

- Step 1: Go to any page that isn't the home page. 0
- Step 2: Search for the email. 0
- Step 3: Add a comment. 0
- c. Usability problems found and suggested solutions:
  - i. Change the color of the comment button, to make it pop more.
- 4. César Evaluated by Hao Ren Yuan
  - a. Cognitive Evaluation:
    - i. Task picked: 4) Find a FAQ about scams
      - 1. Step 1: Go to the FAQ page
        - a. Q1: Is action visible? Yes
        - b. Q2: Did the user recognize the correct button to do the action? Yes
        - c. Q3: Was the UI visible enough? Yes
        - d. Q4: Did the user understand the feedback given by the website? Yes
      - 2. Step 2: Look for the FAQ about scams
        - a. Q1: Is action visible? Yes
        - b. Q2: Did the user recognize the correct button to do the action? Yes
        - c. Q3: Was the UI visible enough? Yes
        - d. Q4: Did user understand the feedback Yes
  - b. Heuristic evaluation:
    - Task 1: Add a comment to "fake@gmail.com"
    - Step 1: Find the email in the database: 0
    - Step 2: Add a comment: 0
    - Task 2: Create a new report.
    - Step 1: Go to the report page. 0
    - Step 2: Fill out the form. 0
    - Step 3: Press "Send". 0
    - Task 3: Type the first comment of your newly created report.
    - Step 1: Search for the email that you reported & click it. 0

- Step 2: Add the first comment. 0
- Task 4: Find a FAQ about scams
- Step 1: Go to the FAQ page. 0
- Step 2: Look for the FAQ about scams. 0
- Task 5: Search for "fake@gmail.com" on a different page and add a comment.
- Step 1: Go to any page that isn't the home page. 0
- Step 2: Search for the email. 0
- Step 3: Add a comment. 0
- c. Usability problems found and suggested solutions:
  - i. Make the option buttons bigger and more visible.
  - ii. Fix the "+ Report" button to only increase the number of reports instead of creating a new report for a new scam email.
  - iii. Add time to the "First Occurrence" category in the table with the scam emails ex.: 05/09/2022.
  - iv. Sorting according to "Type of Scam."

# New changes made:

**1**-The three option buttons were formatted to look more visible.

Their font was increased, space added, and a hoover action was added (it shows the silhouette).

**2**-"+ Report" button.

This button used to be a link to the Report page, the action was changed to increase by one the Number of Reports. It can be clicked one time only, after that the button is disabled.

- **3**-Fix the FAQs page scroll bar.
- **4-**Add day and month for First Occurrence. Ex: 05/09/2022

The date field in the initial database was changed to the format mm/dd/yyyy. When a new scam email is added to the list of emails the date will be formatted in the same way.

**5**-The table should have no sorting at the beginning, only when the user clicks on a header, it should sort.

Originally, the first time the home page was opened it would show the list of scam emails sorted by Number of Reports. Now, the list is presented unsorted.

**6-**Add option to sort by Email and Type of Scam

The list of scam emails can now be sorted by Email and Type of Scam.

#### **Resources used:**

- How to add and format date <a href="https://stackoverflow.com/questions/3552461/how-do-i-format-a-date-in-javascript">https://stackoverflow.com/questions/3552461/how-do-i-format-a-date-in-javascript</a>
- How to add functionality to a button using Svelte <a href="https://svelte.dev/repl/28996f04783542ceafed7cc6a85128b9?version=3.23.0">https://svelte.dev/repl/28996f04783542ceafed7cc6a85128b9?version=3.23.0</a>
- Changing CSS in header buttons
   https://stackoverflow.com/questions/61223675/how-to-set-a-margin-for-a-html-button-background-color
- Add sorting to Email and Type of Scam https://flaviocopes.com/how-to-sort-array-by-date-javascript/

#### References

### Persona pictures:

https://www.semana.com/educacion/articulo/como-funciona-la-evaluacion-docente/526926/

https://www.dreamstime.com/photos-images/college-student.html

https://depositphotos.com/17493327/stock-photo-old-woman.html

https://www.istockphoto.com/photo/russian-gm471335859-18333609

#### Scams:

https://www.atg.wa.gov/5-common-e-mail-scams

https://www.securitymetrics.com/blog/top-10-types-phishing-emails

https://www.consumerfinance.gov/ask-cfpb/what-are-some-common-types-of-sca

ms-en-2092/

#### Svelte:

https://www.npmjs.com/

https://svelte.dev/

https://www.npmjs.com/package/svelte-routing

https://svelte.dev/tutorial/each-blocks

Sounds: <a href="https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233294/info.mp3">https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233524/success.mp3</a>
<a href="https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233563/warning.mp3">https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233563/warning.mp3</a>
<a href="https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233574/error.mp3">https://res.cloudinary.com/dxfq3iotg/video/upload/v1557233574/error.mp3</a>

# Bootstrap/CSS:

 $\underline{https://stackoverflow.com/questions/4646708/css-how-to-get-scrollbars-for-div-ins}\\\underline{ide-container-of-fixed-height}$ 

https://getbootstrap.com/docs/5.0/utilities/overflow/

https://www.aspsnippets.com/questions/181937/How-to-make-text-look-like-Button-using-CSS/

https://getbootstrap.com/docs/5.1/components/accordion/