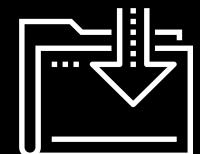


Portfolio Week Day 3

- Design Challenges

UX/UI Design
Lesson 16.3



Today's Objectives

Today we will:



Articulate the importance of presenting design work during job interviews.



Complete a whiteboard design challenge framework.



Execute a design challenge canvas as practice for job interviews.



Articulate the value of being code conversational as a designer.

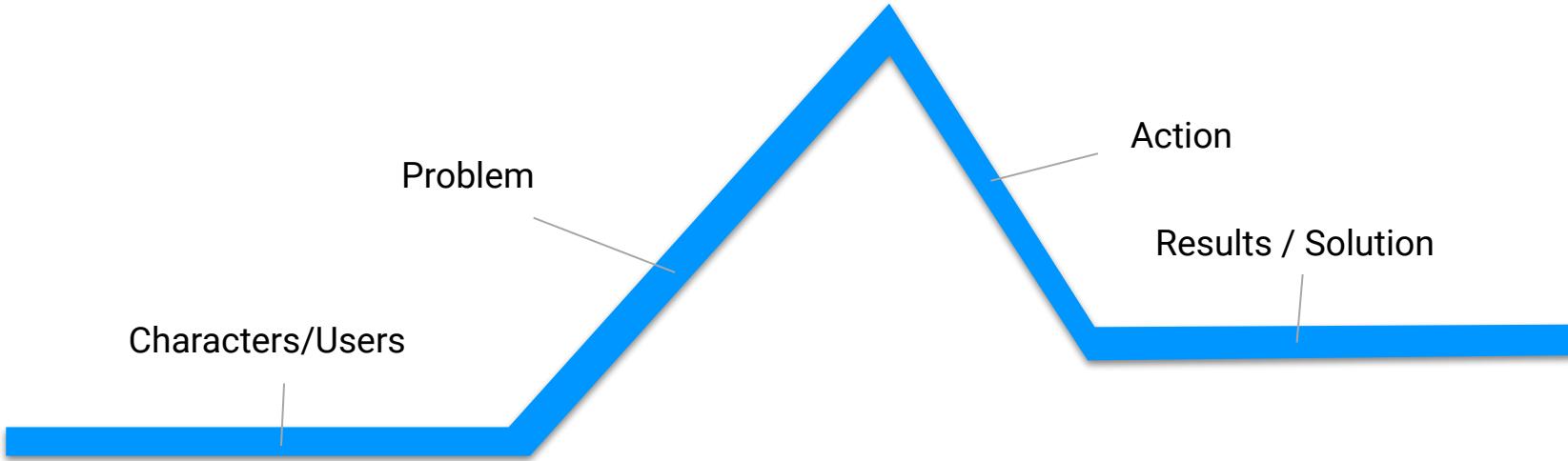


Create our first GitHub repo.

How to Present Your Work

Designers Must be able to Talk about Their Work

However, your portfolio is not a script. You do not want to read your portfolio to people. You want to tell a story.





“

To be a great designer, you
need to communicate about
why you look deeper into
how people think and act.

—Simon Johnston

Graphic Designer / Educator

”

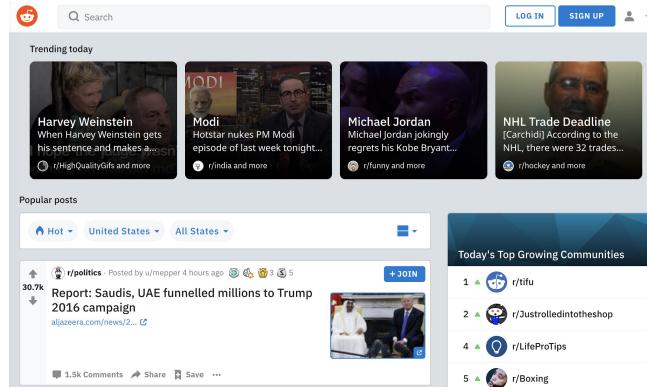
For Example

Imagine a project in your portfolio is a user research and prototyping project you did for Reddit.

The screenshot shows the Reddit homepage with the following visible content:

- Trending today:**
 - Harvey Weinstein**: When Harvey Weinstein gets his sentence and makes a... (by r/HighQualityGifs and more)
 - Modi**: Hotstar nukes PM Modi episode of last week tonight... (by r/india and more)
 - Michael Jordan**: Michael Jordan jokingly regrets his Kobe Bryant... (by r/funny and more)
 - NHL Trade Deadline**: [Carchidi] According to the NHL, there were 32 trades... (by r/hockey and more)
- Popular posts:**
 - r/politics**: Posted by u/mepper 4 hours ago. 30.7k upvotes. Report: Saudis, UAE funnelled millions to Trump 2016 campaign (aljazeera.com/news/2...). + JOIN
- Today's Top Growing Communities:**
 - 1 ▲ r/tifu
 - 2 ▲ r/Justrolledintotheshop
 - 3 ▲ r/LifeProTips
 - 4 ▲ r/Boxing

What Not to Say



When I was at Reddit, I worked on this project to increase advertising revenue for the company.

We followed a design sprint process.

On the first day, we did the “How Might We...” activity where we all wrote on post it notes to explore how we might fix the problems of users not engaging with ads on the site. After we wrote all our “How Might We...” post its, we took 10 minutes and voted.

Why This is Not Good Communication

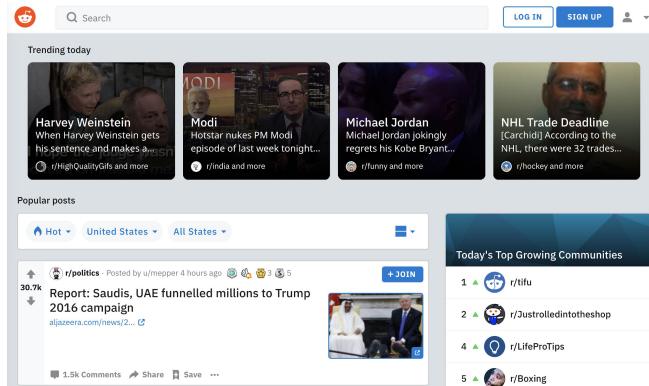
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Then we identified where there were trends and overlap and we decided on which “How Might We...” we would pursue.

1. It doesn't narrate what you did.
2. It doesn't communicate what you were thinking and why you made important decisions
3. It doesn't demonstrate insightful thinking
4. It is not captivating
5. Is sets the tone for how you would communicate as part of the team

A Better way to Tell the Story



When I was at Reddit, I worked on this project to increase advertising revenue for the company.

It all started when the research team started to notice a lot of new users were getting lost in the product and not clicking much on advertisements. After looking at our analytics, we saw that the user's click-through rates were low on ads across the entire user base.

To help us understand the "why" behind those numbers, we decided to do 1:1 interview and group discussions with existing and new users of Reddit. Our goal was to understand their experience with the product so we could balance that with the goals of the business.

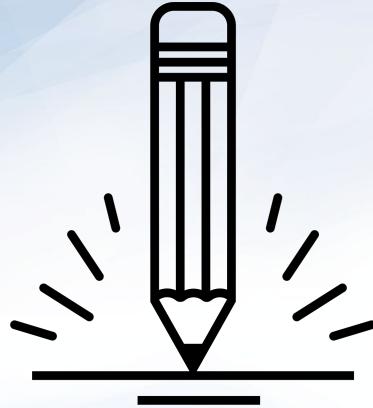
Use Anecdotes and Insights to Tell the Story

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To help us understand the "why" behind those numbers, we decided to do 1:1 interview and group discussions with existing and new users of Reddit. Our goal was to understand their experience with the product so we could balance that with the goals of the business.

- **What did you learn from the product?**
- **What would you do differently if you could start over?**
- **What went well? What didn't go well?**
- **What would be prioritized to continue the project?**
- **Were there any exceptional outcomes? Testimonials? Feedback?**



Student Activity:

Prototype Presentations

Suggested Time:
20 Minutes



Design Challenges



Design Challenge

WHAT

A short exercise that gauges a designer's design process and critical thinking skills.

Once presented with a prompt, the designer must assess the problem, conceptualize a solution, and communicate their reasoning.

WHEN

During the hiring process.

WHY

- To see how you think on your feet.
- To understand your thought process.
- To examine how you collaborate with others.
- To see how you respond to stress.

What to Expect

	1. Phone Screen	2. Phone Interview	3. Design Challenge	4. Onsite Interview	5. Offers & Negotiation
WHO	With a recruiter.	Designers or hiring managers.	Can be at home or in person.	Meet with many or all of the team.	Recruiters.
HOW LONG	60 minutes or less	60 minutes or less	24-48 hours.	2-6 hours.	1-2 weeks.
GOAL	Understand roughly your qualifications and your wants.	See if you are a culture fit. Walk through 1-2 of your website projects.	Understand your “design process.”	Culture fit. Design challenge issued onsite or after.	Make the new job official!

What are Interviewers Looking For?

1. How you **communicate** your approach to the problem.
2. What **questions** you ask.
3. How you solve the problem **for the user and constraints** that you're designing for.

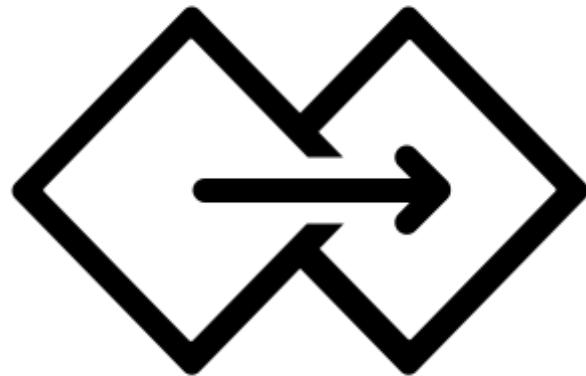
Design Challenge Strategy

Design Challenge Strategy



1. Identify the problem or task.
2. Understand the users.
3. Map out the existing solution or task.
4. Identify flaws with the existing solution.
5. Brainstorm new solutions.
6. Critique these new solutions to determine one possible direction.

5 Steps to Take During a Design Challenge



- Ask clarifying questions about the problem.
- Write key information about the users to develop a persona.
- Sketch out the existing user flow.
- Sketch a new user flow that addresses the problems.
- Sketch screens to reflect solution.

Tips for Design Exercises

- Don't be afraid to ask questions. Pretend you are all working together.
- Think out loud.
- Always check your solution against the problem.
- Aim for lots of ideas.
- Explore competitors or similar products.

Helpful Tips

Tips for Design Exercises

01

DOs

It's okay to:

- Assume—just acknowledge it.
- Mess up—just erase it and move on.
- Ask for help—be honest.
- Roleplay—have the interviewer act as the end-user.

02

DO NOTs

- Don't just start sketching!
- Don't hesitate to use the whiteboard!
- Don't design in silence.

The Whiteboard Framework

<p>1 Goal of the exercise</p> <ul style="list-style-type: none">• What is the ultimate purpose of the exercise?• We finished the session and it was successful, why did we succeed?• How do we know this is the right conversation to have?• How will we measure success?	<p>2 User Personas</p> <ul style="list-style-type: none">• Which user groups are we considering?• Who is our Primary Persona?• What are the behaviors this persona is currently performing? Why?• How does this persona measure success? What motivates them?• What is getting in the middle of them and achieving their goals?	<p>5 Solution Space</p> <ul style="list-style-type: none">• How can we craft artifacts to validate the assumptions?• What would be a high-level journey of the user interacting with the solution?• What would be a happy path for users to achieve their goals?• What are some scenarios that might break the happy path?• What kind of messages should we need to display to inform the user about next steps?
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<p>4 Assumptions</p> <ul style="list-style-type: none">• What are the biggest assumptions we're making, based on what we know and what we don't know about the user, the business and the technology?• What are the risks of not validating those assumptions early in the process?• If we could pick one or two assumptions to validate, which ones they would be?• How would we validate them?		

Example Challenge

PROMPT Design a kiosk for liquid soap and shampoo bottle refills.

THE FRAMEWORK

1. Ask questions.
2. Define the Problem/Goal.
3. Define Users/Needs.
4. Understand the Context/Constraints.
5. Generate Ideas.
6. Write a Task list/User Flow.
7. Create Sketches.
8. Define Success Metrics.
9. Write down Assumptions made during the challenge.

Whiteboard Exercise Canvas



1 Goal of the exercise

- What is the ultimate purpose of the exercise?
- We finished the session and it was successful, why did we succeed?

- How do we know this is the right conversation to have?
- How will we measure success?

2 User Personas

- Which user groups are we considering?
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5 Solution Space

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- How would we validate them?

The Goal

STEP 1: ASK QUESTIONS

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

ASK QUESTIONS

- Where is this product going to be placed?
- What physical requirements should the kiosk have?
- Will it hold multiple types of soap and shampoo?
- What payment methods are allowed?

STEP 2: FRAME THE PROBLEM

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

PROBLEM

Buying soap and shampoo can be streamlined to save the customer's time and decrease the waste of plastic packaging.

GOAL

The refill kiosk lets customers fill up their old bottles, quickly and cleanly. It could possibly contain other products and be a retention driver for the business.

Whiteboard Exercise Canvas

① Goal of the exercise

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- How do we know this is the right conversation to have?
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The User Persona

STEP 3: UNDERSTAND THE USERS AND THEIR NEEDS

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

QUICK AND CHEAP

Some users may have just one bottle to fill up, occasionally.

Their experience should be quick, since they have other shopping to get to. Maybe even a way to clean up if it gets messy.

SUPER SAVERS

Other users may fill up all of their bottles for all of their rooms and family members. They need to be able to fill multiple bottles with little effort.

Maybe even a way to start the process and return to the kiosk when it is finished.

Whiteboard Exercise Canvas

① Goal of the exercise

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The Problem Space

STEP 4: DEFINE CONTEXT AND CONSTRAINTS

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

CONSTRAINTS

Shoppers may have carts, baskets, and carrying bottles while using the machine.

The screen might be dirty from usage from previous customers.

Shoppers are limited on time.

Whiteboard Exercise Canvas

Assumptions Made

- | | | |
|-------------------------------|--|--|
| ① Goal of the exercise | <ul style="list-style-type: none">• What is the ultimate purpose of the exercise?• We finished the session and it was successful, why did we succeed? | <ul style="list-style-type: none">• How do we know this is the right conversation to have?• How will we measure success? |
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STEP 5: WRITE ASSUMPTIONS

PROMPT

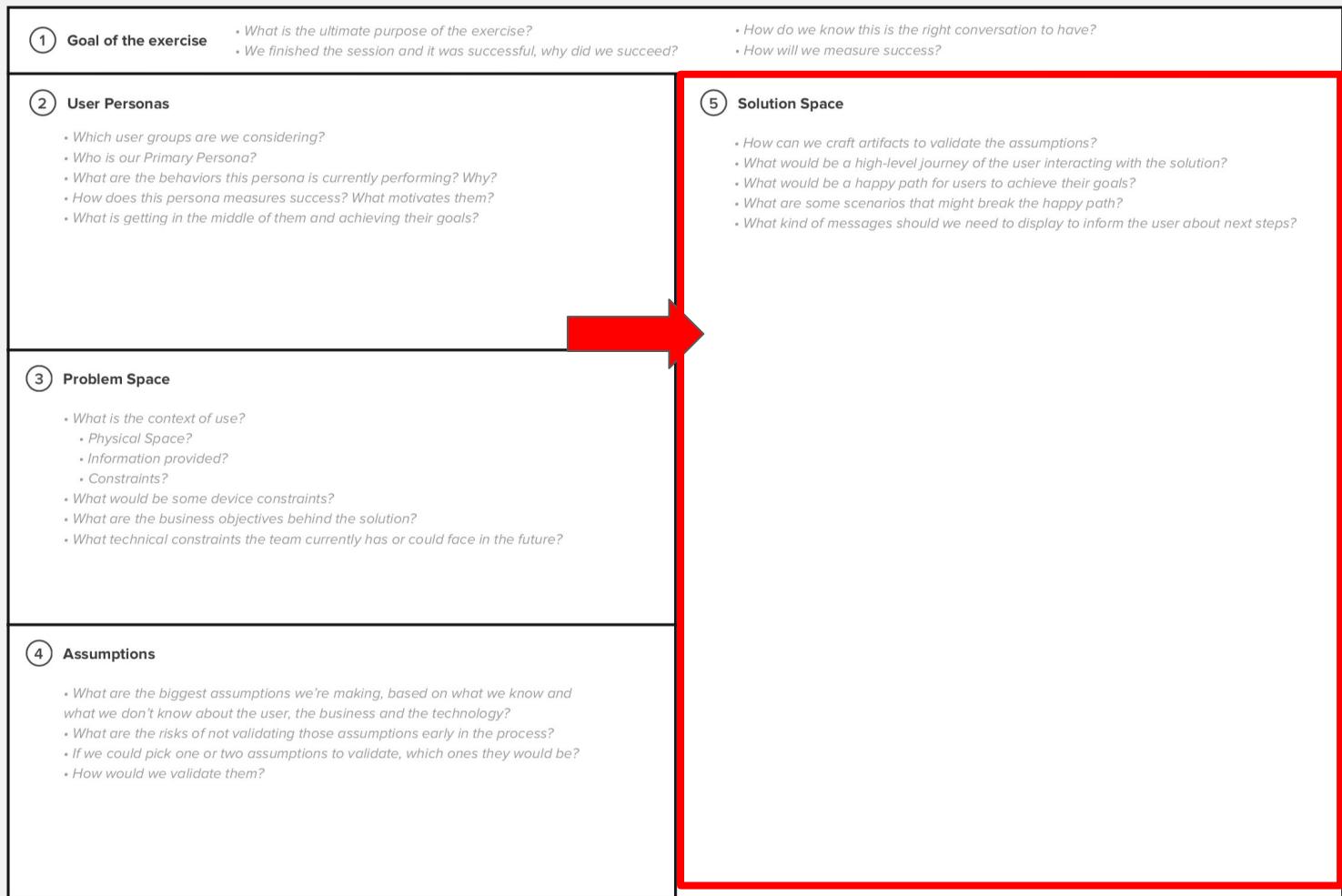
Design a kiosk for liquid soap and shampoo bottle refills.

IT'S OKAY TO MAKE ASSUMPTIONS

Write down assumptions on the board as you come across them and mention how you would validate them at the end.

You can say “I am assuming most shoppers will refill the same bottle, and not switch brands often. I’ll validate this by tracking refill rate and comparing it to the purchase rate of the bottles.”

Whiteboard Exercise Canvas



The Solution

STEP 6: GENERATE IDEAS

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

IDEAS

Pay first, then fill up. Shoppers enter credit card, use screen interface, then fill up—so hands do not touch screen after touching soap.

Automatic sensors. Store-branded soap bottles have sensors which the kiosk can detect. It knows which liquid to dispense, can weigh the bottle, and knows how much to fill up.

Set up and come back. Queue order and come back in 5-10 minutes when bottles are filled.

STEP 7: WRITE A TASK / USER FLOW

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

TASK FLOW

1. User taps 'start' on screen.
2. Puts in credit card—kiosk is ready to dispense.
3. User places first bottle onto sensor, kiosk recognizes brand and bottle, and dispenses only what is needed.
4. Kiosk asks 'fill up another?' or 'done'. User selects 'fill up another.'
5. User places second bottle onto sensor, kiosk doesn't recognize item, user selects which liquid to dispense.
6. Kiosk finishes dispensing, user selects 'done', user's credit card is charged and sent a text receipt.

STEP 8: SKETCH

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

SKETCHING TIPS

- Always explain what you're drawing, before or after if not during.
- Be quick and fast, but also neat.
- You'll need to explain these sketches afterwards.
- Use two colors. Black to sketch, an accent color to call out CTAs and affordances
- Visualize concepts, functions, and processes with graphs and diagrams.

STEP 9: MEASURE SUCCESS

PROMPT

Design a kiosk for liquid soap and shampoo bottle refills.

WHAT DOES SUCCESS LOOK LIKE?

What does success look like?

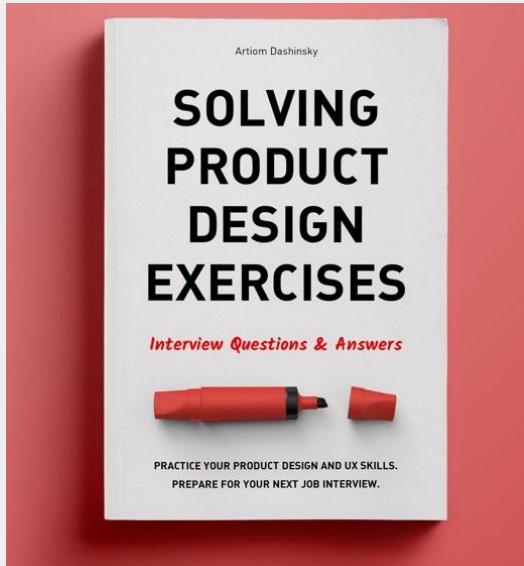
What does success not look like?

What metrics should we track to see if our solution was successful?

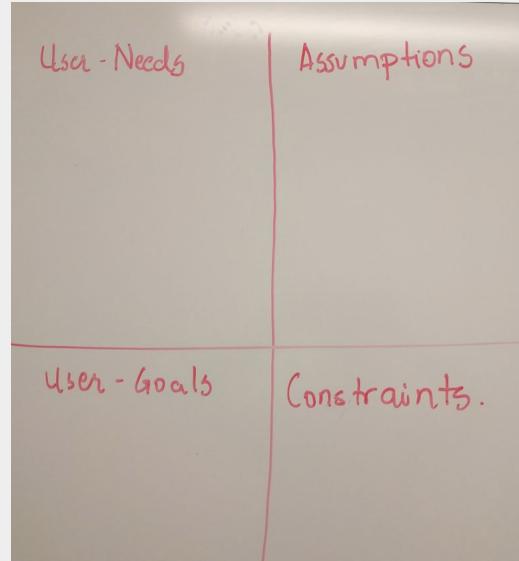
How might we improve the solution in future iterations?

There are many Frameworks

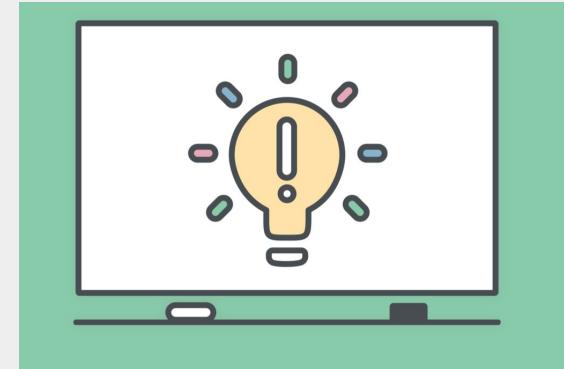
You will need to find one that works for you.



[Solving Product Design Exercise](#)



[Whiteboard Design Challenge Framework](#)



[Beginner Guide to the Whiteboard Challenge](#)

Whiteboard Exercise Canvas

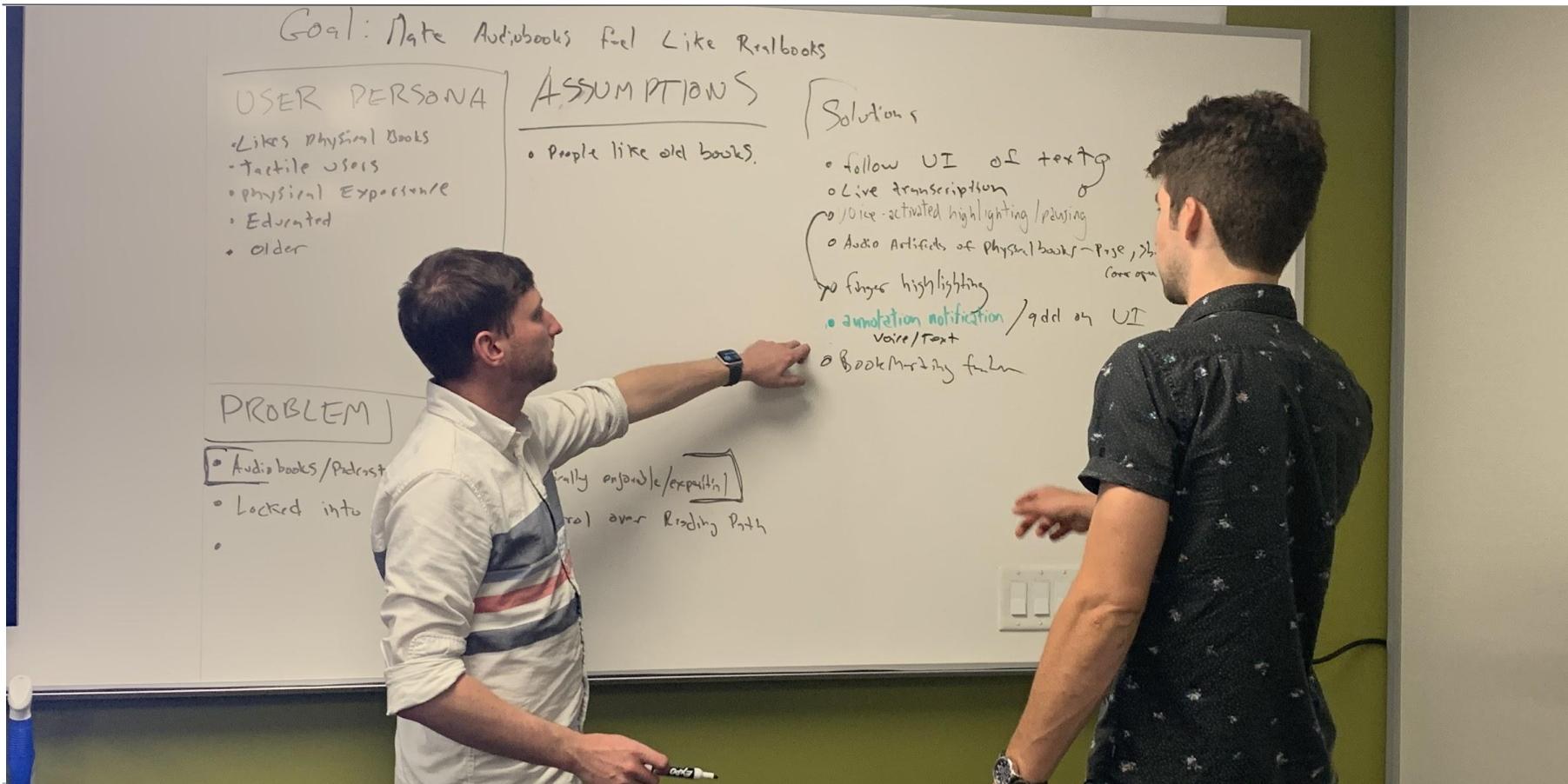
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Download the Wizeline Template Here:

<https://www.dropbox.com/s/kpqnlefgra67oak/Whiteboard%20Canvas.pdf?dl=0>

Whiteboard Examples



Whiteboard Examples

Goal: Make Audiobooks feel Like Realbooks

USER PERSONA

- Likes Physical Books
- Tactile User
- Physical Experience
- Educated
- Older
- Still Apprehends Skewmorphisms

ASSUMPTIONS

- People like old books.

Solutions

- ① open app, choose book / resume
- ② user hears audio of page moving to saved spot.
- ③ spoken text on page (e-book style)
↳ emphasis on words
- ④ user adds their own note by tapping green, speaking/typing their note.
- ⑤ story review

- ⑥ user highlights passage w/finger

→ timeline bookmark is placed.

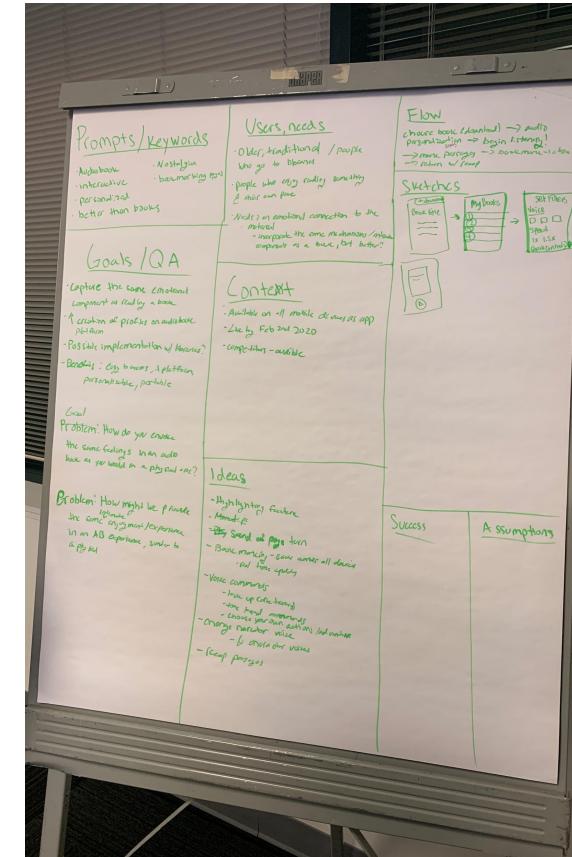
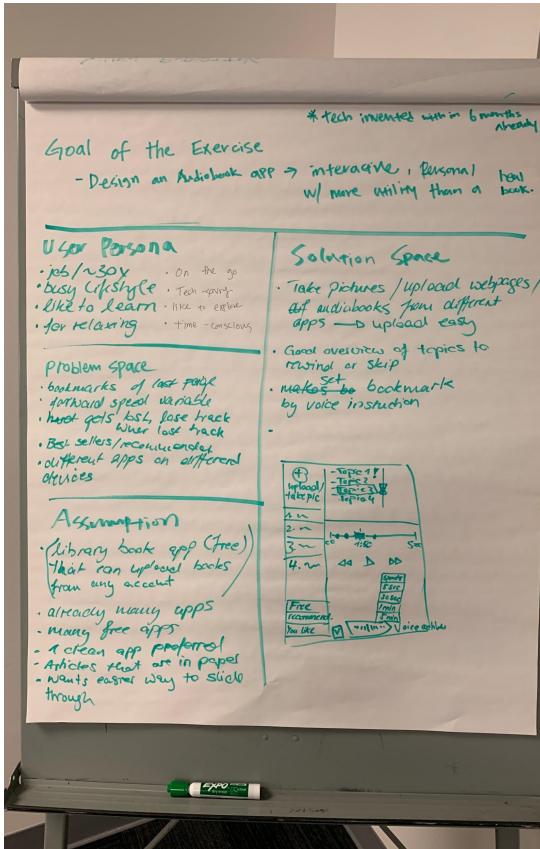
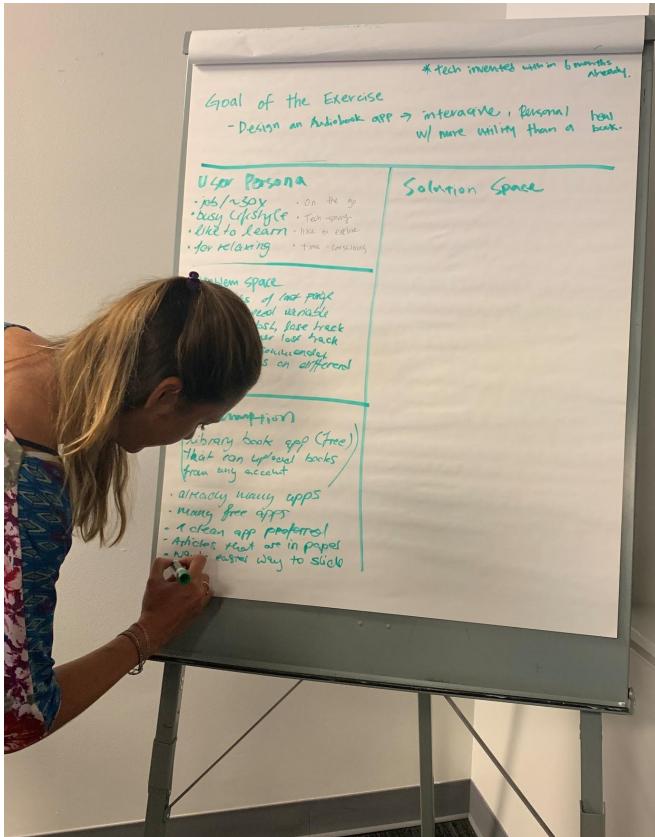
PROBLEM

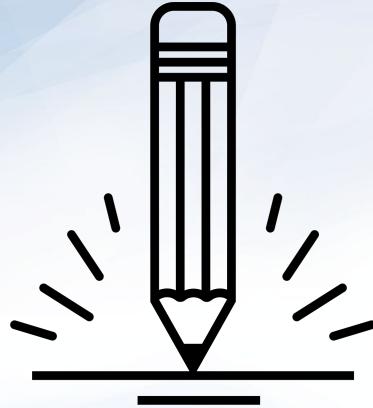
- Audiobooks/Podcasts are not as physically enjoyable/experiential
- Locked into Narrator — No control over Reading Path

Solutions

- Skewmorphic Book Dossiers
- follow UI of text ↳ footnote/notification appendix
- Live transcription
- voice-activated highlighting/pausing
- Audio Artifacts of Physical books → page, shuffle, weights, core opacity,
- finger highlighting
- annotation notification / add to UI
voice/text
- bookmarking function → tap cover of page
- voice selection / pace

Whiteboard/Paper Versions Examples





Student Activity:

Whiteboard Design Challenge

(Instructions sent via Slack)

Suggested Time:
50 minutes





Time's Up! Let's Review.

What is Front-End Development?

Front-End Development

Front-End Development is:

01 **Teamwork**



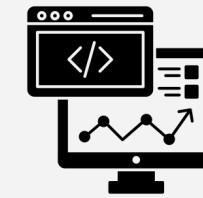
The practice of building the "client-facing" section of websites and user interfaces.

02 **FE Code**



Front-end developers build the parts of the website users see and interact with.

03 **Iterative**



Front-end developers use HTML, CSS, and JavaScript to build rich interfaces that are pleasing to the eye.

Why Do I Need To Know **Front-End Development?**



An architect would understand the properties of concrete, so why wouldn't a designer understand the properties of code?

—Aaron Walter,

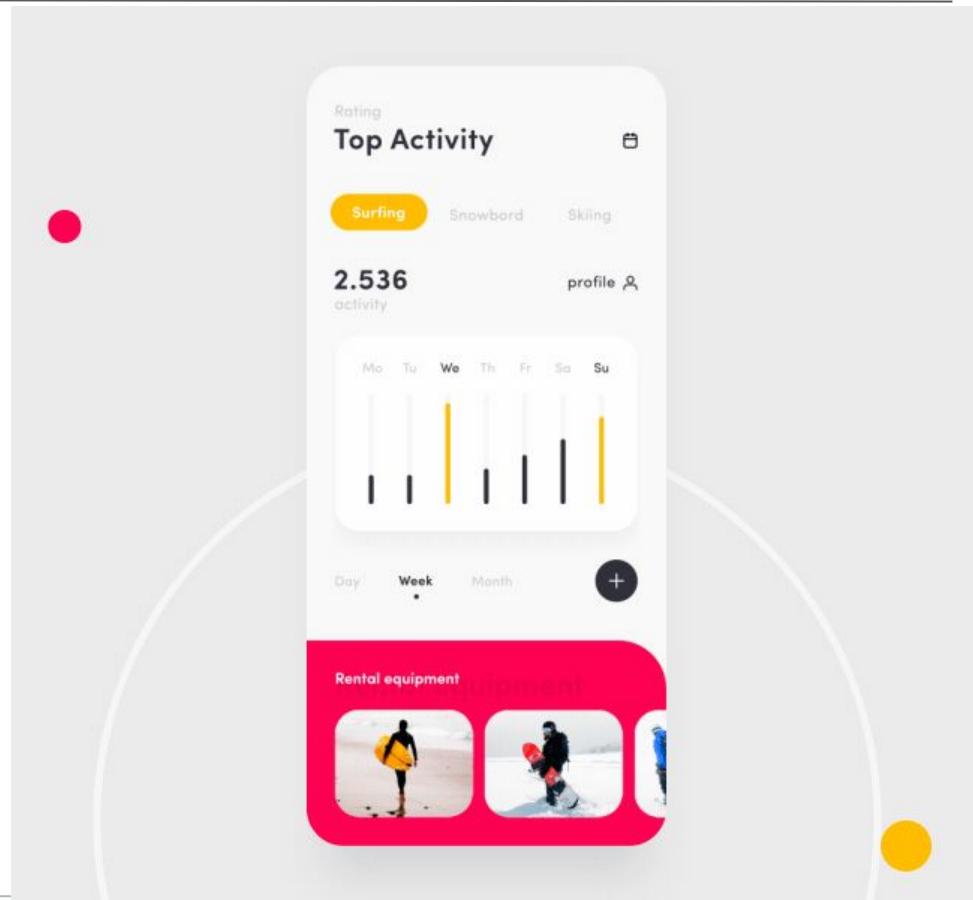
VP Design Education at InVision

Why Learn Front-End Development?

Understanding the medium you are designing for helps you create better user interfaces.

Learning code helps you to think deeply about your designs and how to make them more efficient.

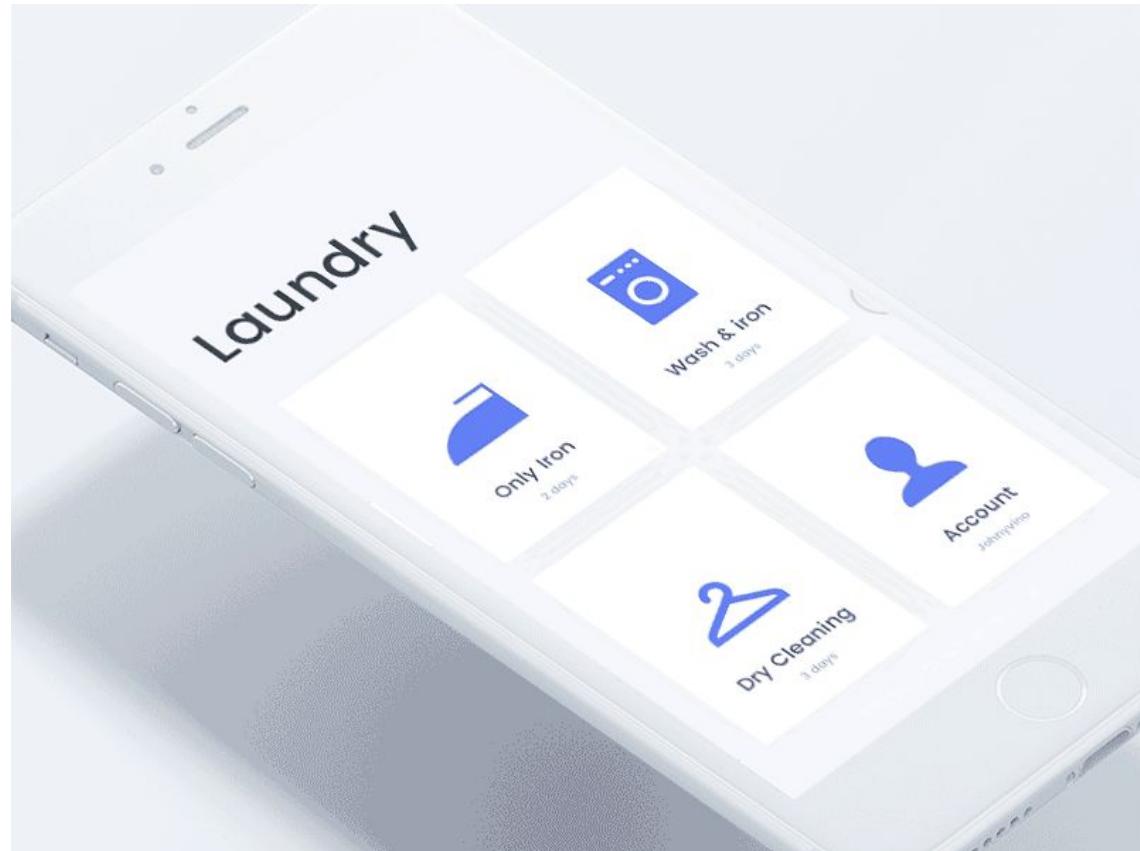
Understanding the medium gives you insight into where you can push boundaries to make something delightful and innovative.



Why Learn Front-End Development?

As a UX/UI designer, you **WILL** be working with developers or product managers to implement your design.

Being able to communicate your ideas effectively to developers is essential.



Do UX/UI Designers Need to Know How to Code? YES.

The majority of user experience job descriptions have 4 things in them that makes knowing front-end development invaluable:

01

Understanding the technical implications of UX/UI decisions.

02

Ability to communicate clearly and effectively with members of the development team and business stakeholders.

03

Working knowledge of HTML, CSS, and JavaScript.

04

Some development experience for the more senior-level UX roles.

Designers who are “code conversational” will see more job opportunities

UX Designer

Web Advanced—Irvine CA, 92618

\$60,000—85,000 a year Full-time, Part-time

Apply Now

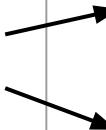
Required

- Expert in Adobe Photoshop
- Expert in at least one wireframing/prototyping software such as Sketch, Adobe XD, Figma
- 4 years experience in providing UX across large-scale websites
- Excellent writing and communication skills
- Conceptual understanding of the technical implications of UX/UI decisions
- Proficient in Google Analytics

Desired

- Experience with tools such as HotJar, UserTesting.co, Visual Website Optimizer
- Experience working with clients on a variety of projects
- Experience as part of a team that included front and back-end developers
- Proficiency in design review softwares such as InVision, Zeplin, and project management softwares such as Jira
- Some HTML/CSS knowledge/coding ability

Development
Experience



Becoming Code Conversational



How much coding knowledge does a
UX/UI designer need?

How much coding knowledge does a
UX/UI developer need?



Student Activity:

Software Check

(Instructions sent via Slack)

Suggested Time:
8 minutes

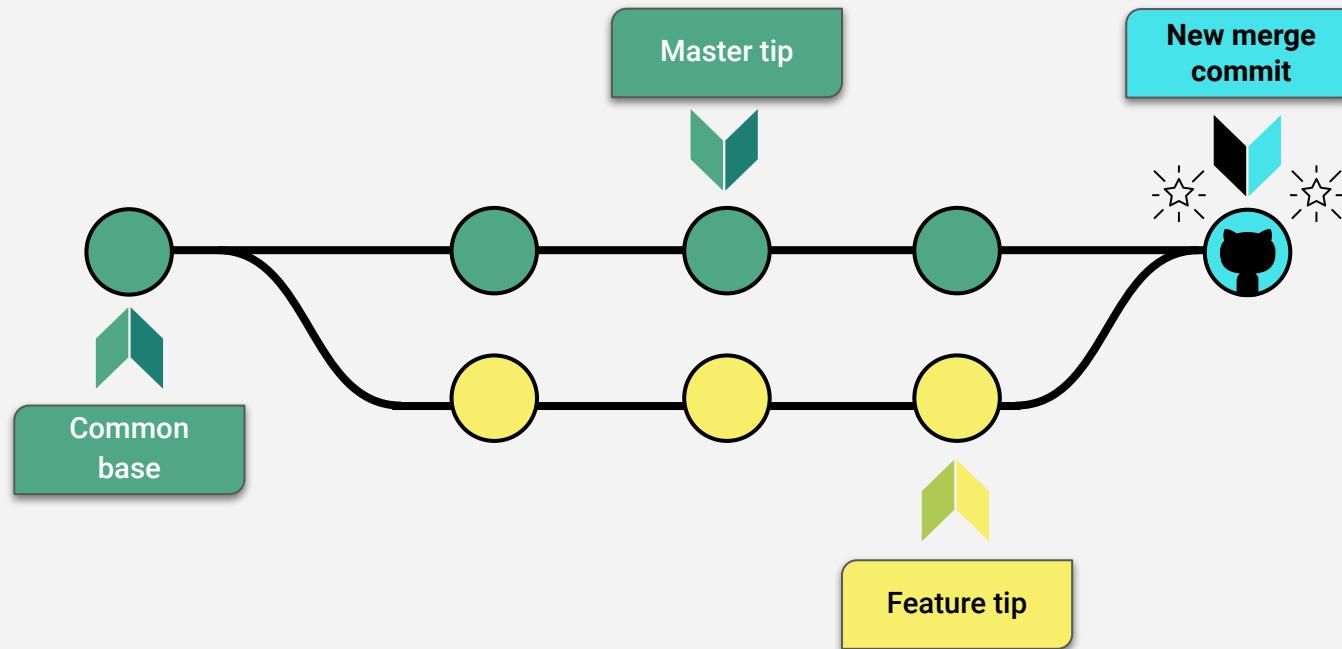




GitHub + Version Control

What is version control?

Version control is a system that records changes to a file or set of files over time so that you can recall specific versions later.





Git/GitHub is a distributed **version-control** system for tracking changes in source code during software development.

It is designed for **coordinating work among programmers**, but it can be used to track changes in any set of files.

Why learn GitHub?

Here is a senior UX designer role. Once again, they specifically ask for knowledge of HTML, CSS and use of GitHub.

Many User Experience jobs are for websites, making understanding the tools essential to excelling at the job.

Senior UX Designer

Sumo ★★★★★ 13 reviews - Austin, TX

Apply Now



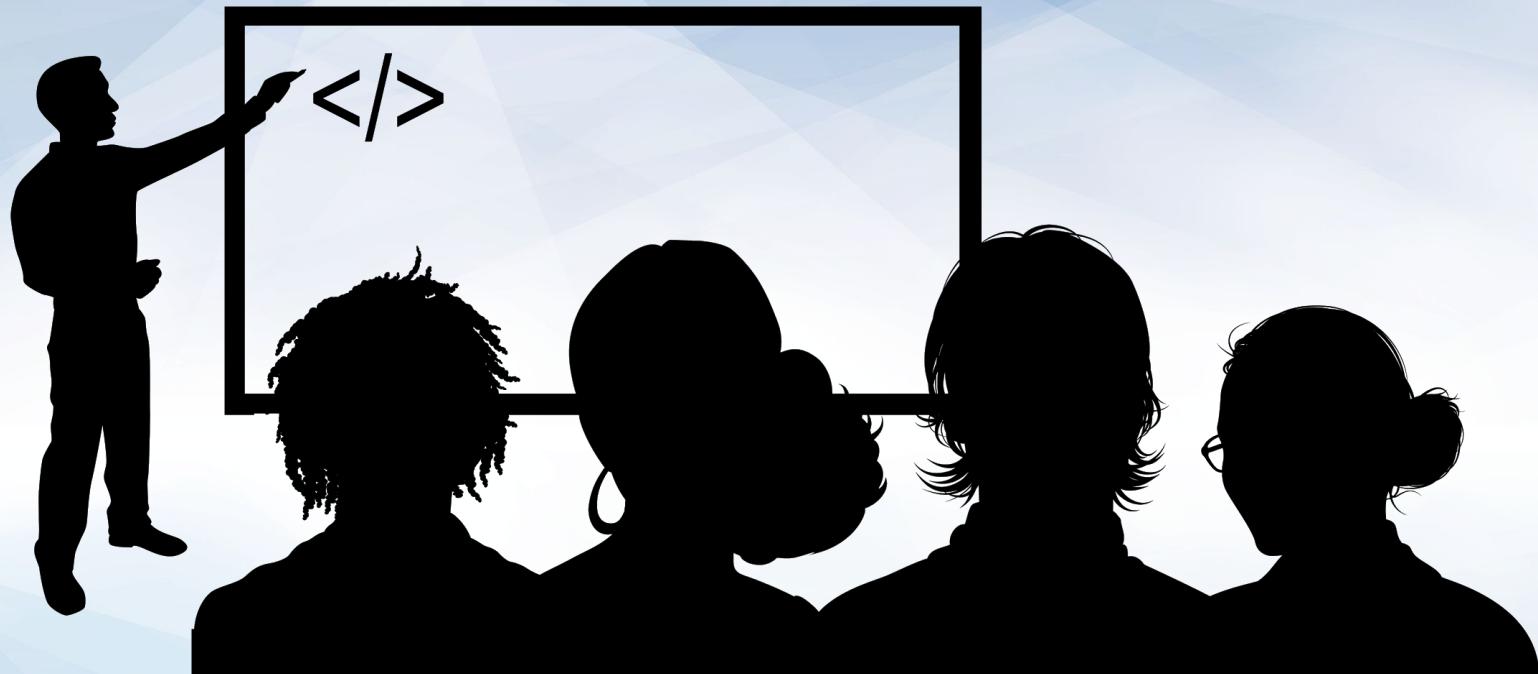
- Conducting user research, testing usability, and explaining your findings
- Deciding what level of prototyping a new feature requires
- Collaborating with the Sumo product team to understand customer and company goals
- Creating wireframes, storyboards, sitemaps, screen flows, and prototypes
- Synthesizing and presenting your findings
- Working with our UI team to explain what you've built and designed
- Exporting and annotating your design to engineers
- Continuously pushing design projects to the next phase
- Participating in brainstorming sessions and providing feedback on ideas

Role Requirements:

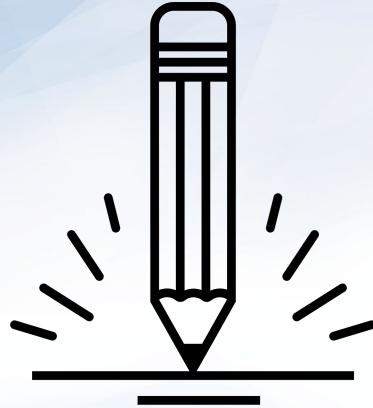
- 3+ years of experience
- Most recent portfolio demonstrating both design skill and process
- Experience in creating easy-to-use designs that display holistic thinking
- Amazing user research experience
- Acute attention to detail
- Experience with and proficiency in design and prototyping software (Sketch, Invision, Adobe...etc.)
- Stellar presentation skills
- Strong communication skills
- Must love dogs and tacos!

Software Experience:

- Sketch software
- Prototyping & wireframing software
- HTML
- CSS
- Github



Instructor Demonstration
GitHub Desktop



Student Activity:

My First GitHub Repo

(Instructions sent via Slack)

Suggested Time:
12 minutes



Congratulations!

Today we learned:

01

Design Challenge Framework

We learned a design challenge framework that we can use during on-site interviews.



02

How to work through a Design Challenge

We used a framework to complete a whiteboard design challenge.



03

How to set up our environment for code

We downloaded tools and set up GitHub in preparation for coding.



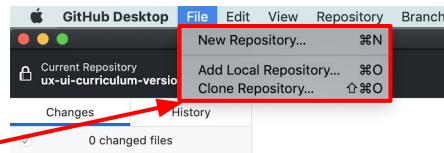
Questions?

End

GitHub Desktop Reference

Git Functions

New Repository - This button creates a new repo on your desktop.



Add Local Repository -
Adds a already existing
git repo to GitHub
Desktop.

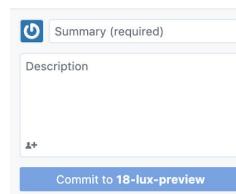
Git clone - Clones a git
repository onto the local
file system.

No local changes

There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.

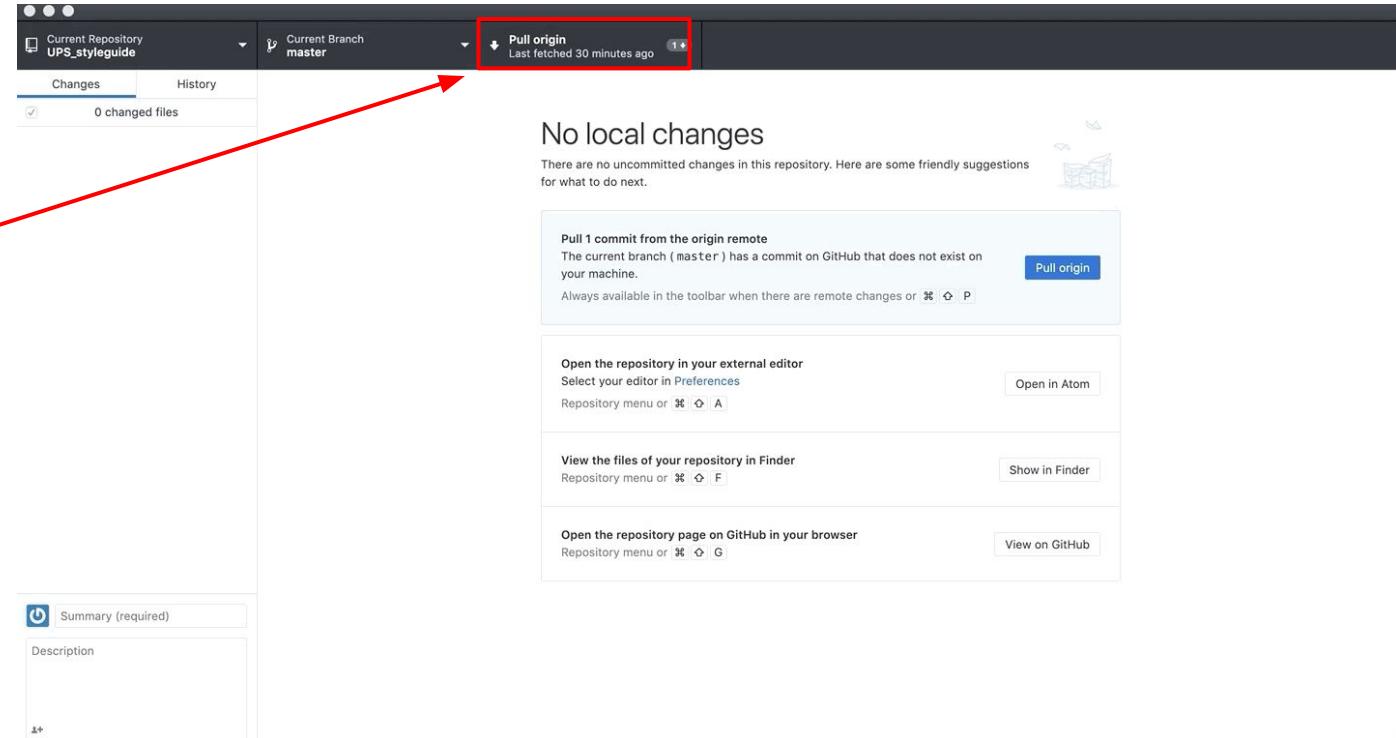
The screenshot shows a list of suggestions for the current repository:

- Publish your branch**: The current branch (18-lux-preview) hasn't been published to the remote yet. By publishing it to GitHub you can share it, open a pull request, and collaborate with others.
Always available in the toolbar or ⌘ P [Publish branch](#)
- Open the repository in your external editor**: Select your editor in [Preferences](#).
Repository menu or ⌘ ⌘ A [Open in Atom](#)
- View the files of your repository in Finder**: Repository menu or ⌘ ⌘ F [Show in Finder](#)
- Open the repository page on GitHub in your browser**: Repository menu or ⌘ ⌘ G [View on GitHub](#)



Git Functions

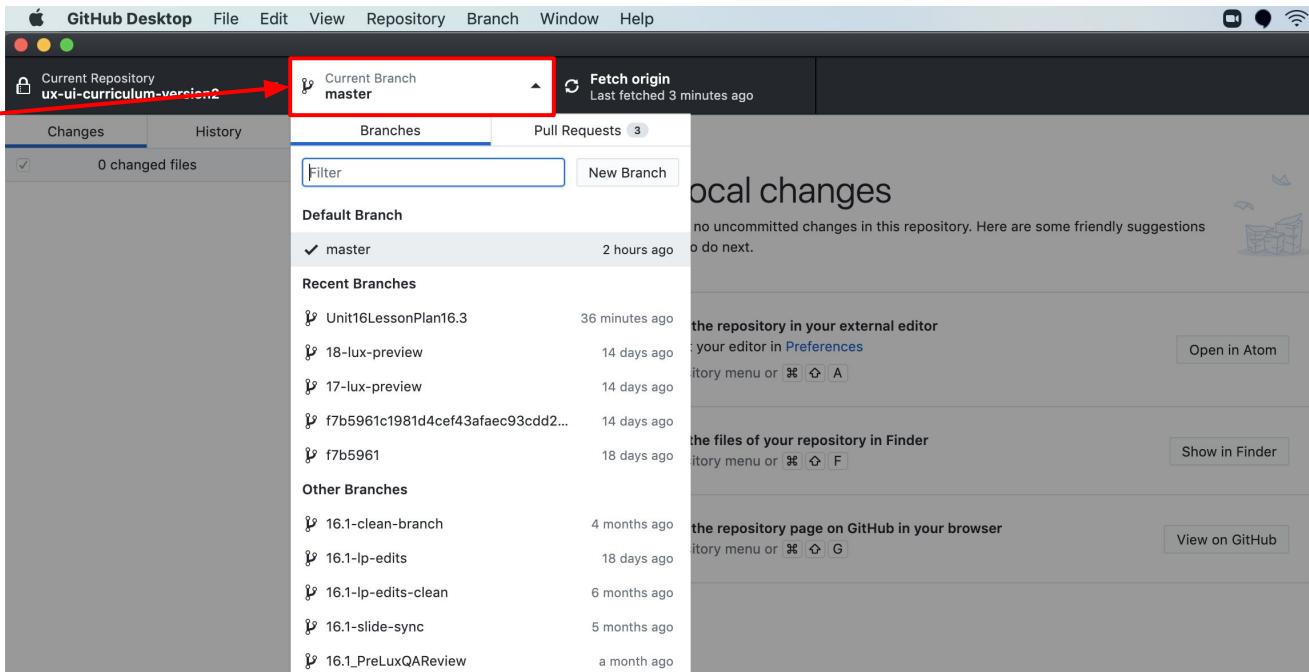
Git Push - Used to update your local repository with changes to local branches.



Git Functions

Branches - You can create and manage branches via GitHub Desktop.

Branches are local copies of repositories that allow you to work separate from the main repository.



Git Functions

Git Push - When changes are made to your local git repository, GitHub Desktop tracks your changes and allows you to update the cloud repository.

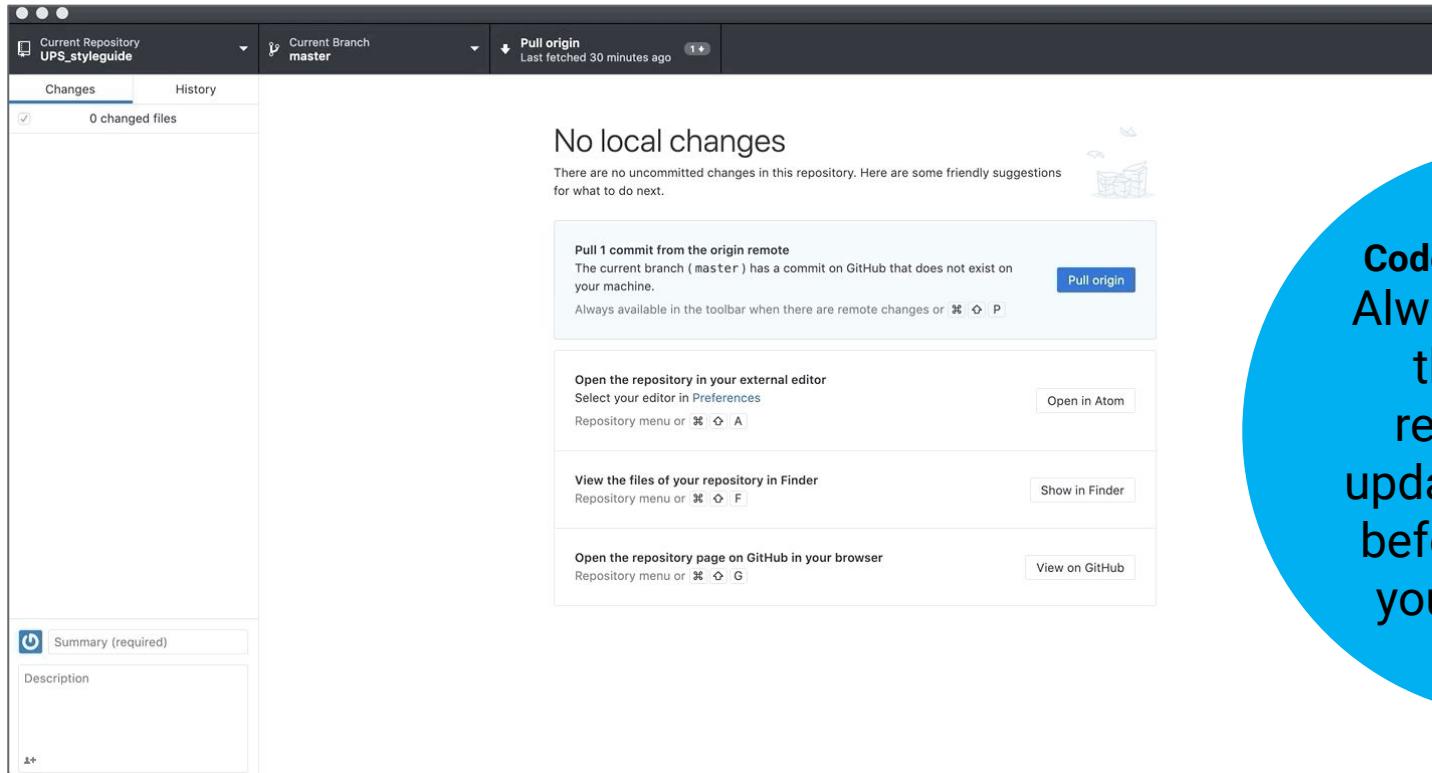


The screenshot shows the GitHub Desktop application interface. At the top, it displays the current repository as 'Current Repository UPS_styleguide' and the current branch as 'Current Branch master'. A status bar indicates 'Push origin' has been performed 'Last fetched 9 minutes ago'. The main area shows a file named 'index.html' with a diff view. The diff highlights changes made to line 14, where the hex code '#333366' was replaced by '#2244'. Below the diff, there is a commit message input field with the placeholder 'Commit name' and a 'Commit to master' button at the bottom. A note at the bottom states 'Committed 15 hours ago'.

```
@@ -11,7 +11,7 @@
<h2 class="sectionHead">Primary Colors</h2>
<div class="colorContainer">
<div class="swatch darkBlue"></div>
- <div class="hexCode">#333366</div>
+ <div class="hexCode">#2244</div>
</div>
<div class="colorContainer">
<div class="swatch darkGrey"></div>
```

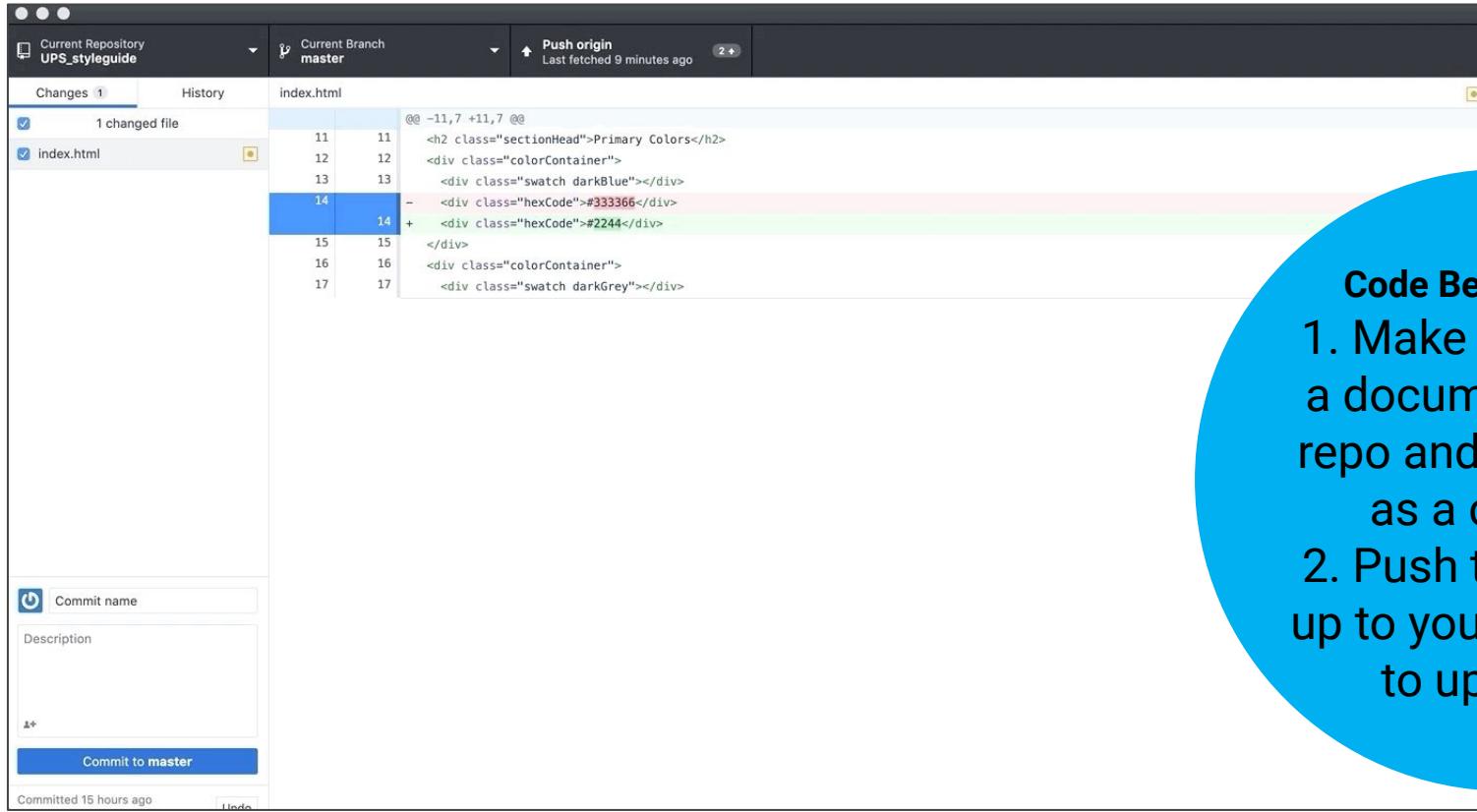
Common GitHub Desktop Workflows

Workflow 1: Pull from a repository



Code Best Practice:
Always pull from
the remote
repository to
update your code
before you start
your work day.

Workflow 2: Push Local Changes



The screenshot shows a GitHub commit interface for a repository named 'UPS_styleguide' with the current branch being 'master'. The commit has been pushed to 'Push origin' 9 minutes ago. The commit message is 'index.html' and it contains one change file. The diff shows the following code changes:

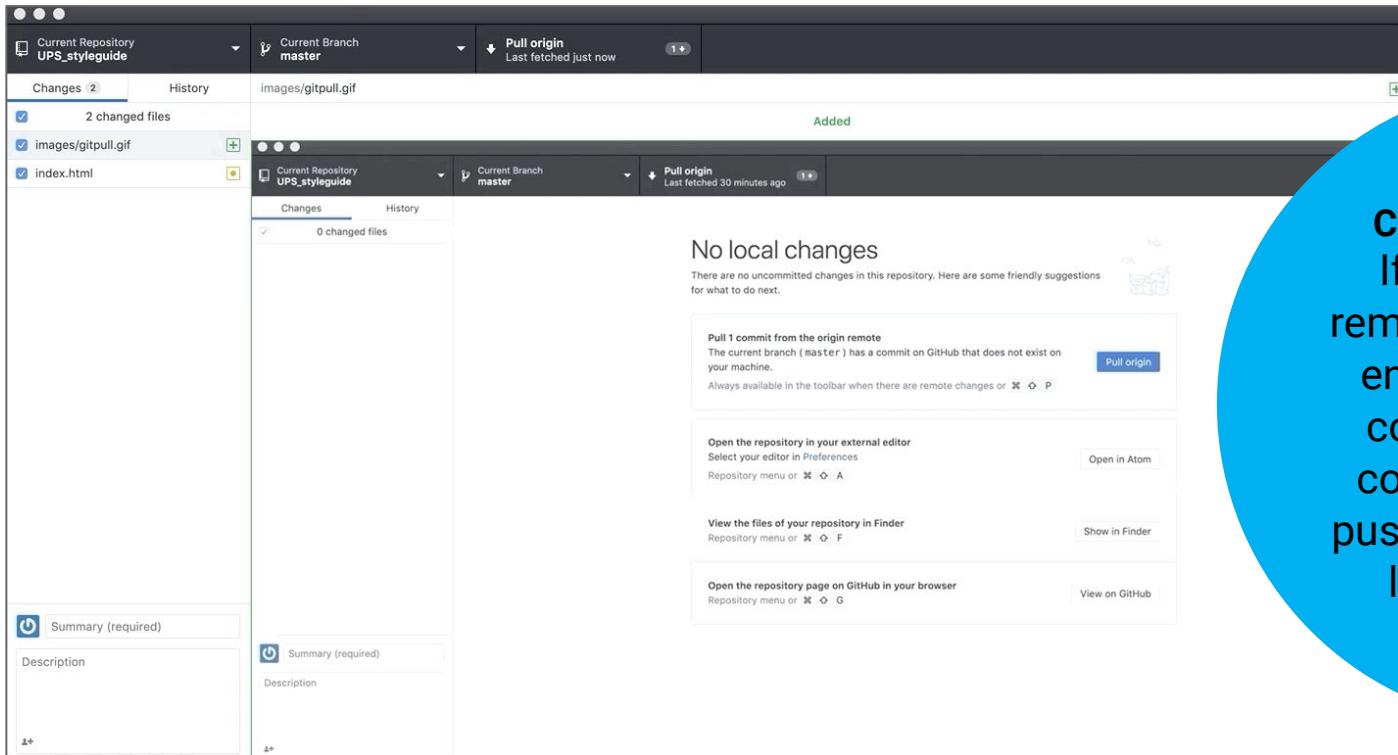
```
@@ -11,7 +11,7 @@
 11   11 <h2 class="sectionHead">Primary Colors</h2>
 12   12 <div class="colorContainer">
 13   13   <div class="swatch darkBlue"></div>
 14 - 14 -<div class="hexCode">#333366</div>
 15 + 15 +<div class="hexCode">#2244</div>
 16   16 </div>
 17   17 <div class="colorContainer">
          <div class="swatch darkGrey"></div>
```

The commit interface includes fields for 'Commit name' (with a placeholder 'Commit name'), 'Description' (with a placeholder 'Description'), and a 'Commit to master' button at the bottom.

Code Best Practice:

1. Make changes to a document in your repo and then add it as a commit.
2. Push the commit up to your repository to update it.

Workflow 3: Resolving Merge Conflicts



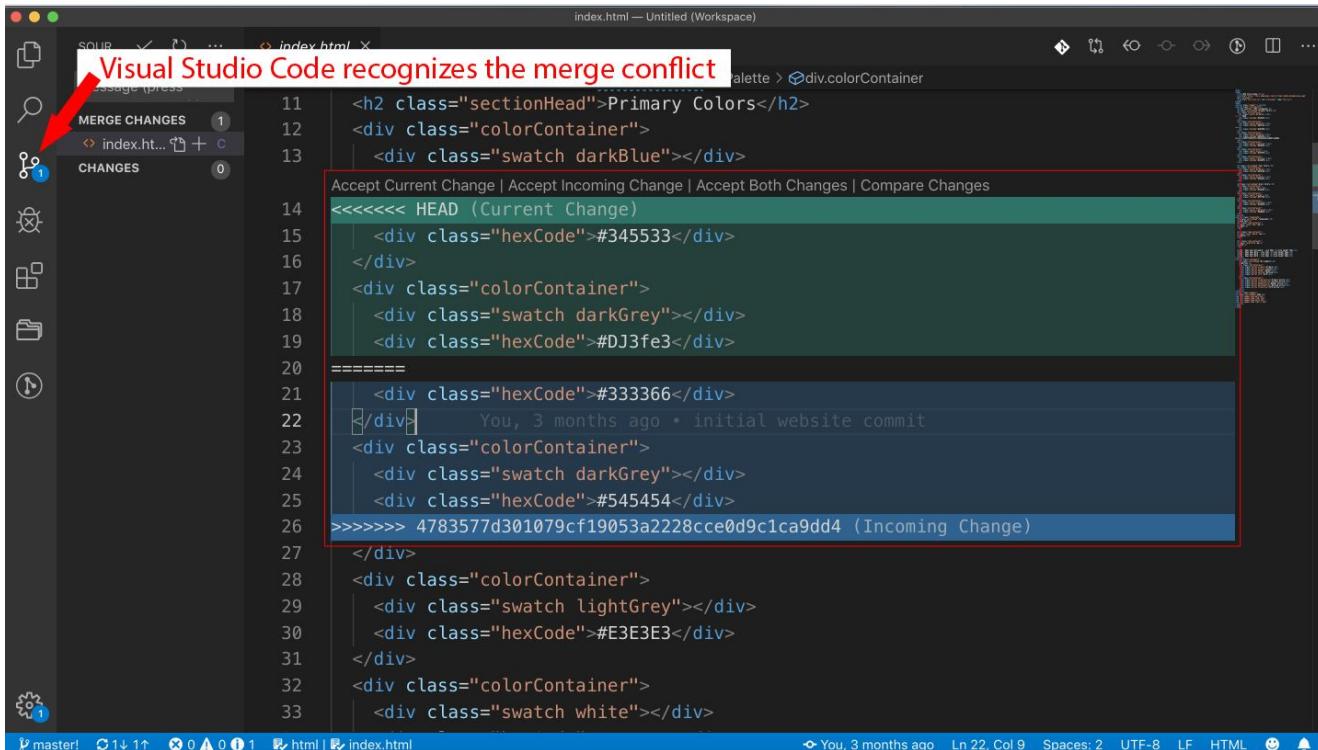
Code Best Practice:
If you pull from a
remote repository and
encounter a merge
conflict, select the
correct version and
push the merge to the
local repository.

Workflow 3.1: Resolving Merge Conflict

The next step is to open the conflicting file in Visual Studio Code.

Make sure you have this plugin installed for VScode:

[VScode Git Package](#).



Visual Studio Code recognizes the merge conflict

```
index.html — Untitled (Workspace)
```

MERGE CHANGES 1

CHANGES 0

Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes

<<<< HEAD (Current Change)

11 <h2 class="sectionHead">Primary Colors</h2>

12 <div class="colorContainer">

13 <div class="swatch darkBlue"></div>

14 <div class="hexCode">#345533</div>

15 </div>

16 <div class="colorContainer">

17 <div class="swatch darkGrey"></div>

18 <div class="hexCode">#DJ3fe3</div>

19 <div class="hexCode">#333366</div>

20 </div>

21 <div class="hexCode">#333366</div>

22 </div> You, 3 months ago * initial website commit

23 <div class="colorContainer">

24 <div class="swatch darkGrey"></div>

25 <div class="hexCode">#545454</div>

26 >>>> 4783577d301079cf19053a2228cce0d9c1ca9dd4 (Incoming Change)

27 </div>

28 <div class="colorContainer">

29 <div class="swatch lightGrey"></div>

30 <div class="hexCode">#E3E3E3</div>

31 </div>

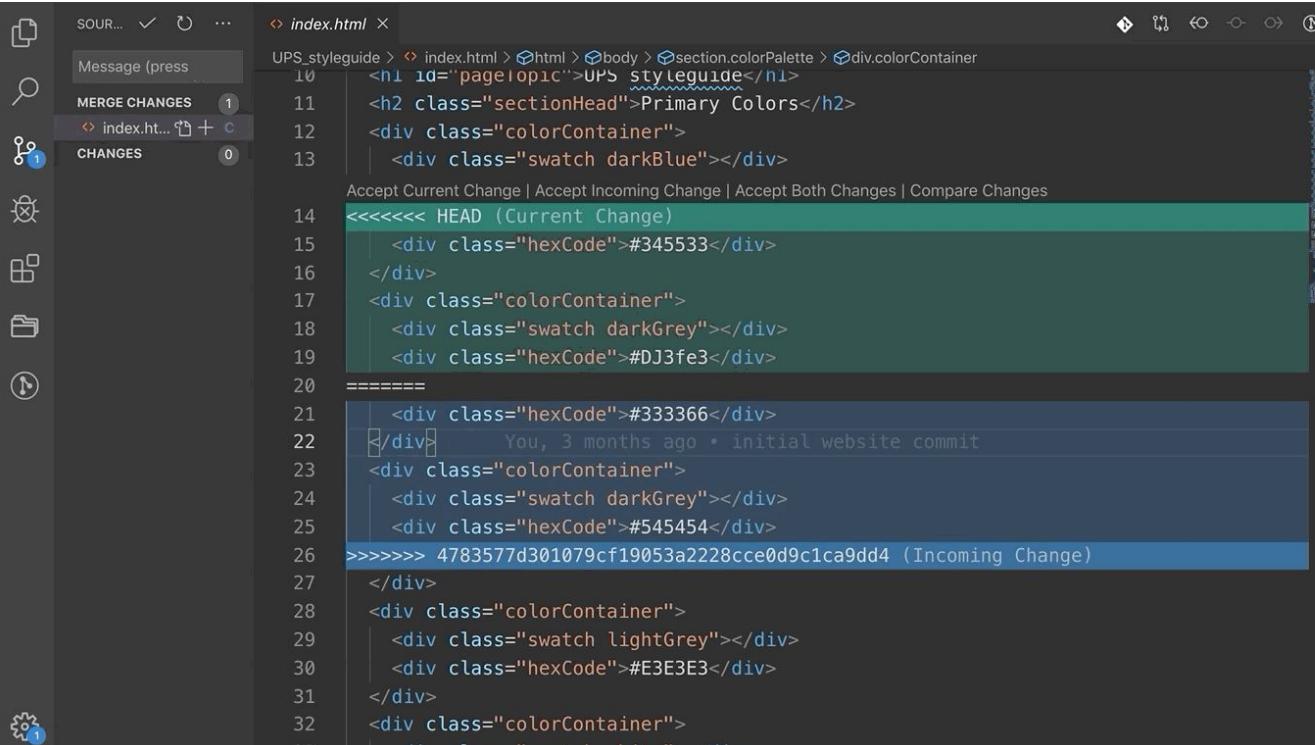
32 <div class="colorContainer">

33 <div class="swatch white"></div>

master 1 11 0 0 1 1 html index.html You, 3 months ago Ln 22, Col 9 Spaces: 2 UTF-8 LF HTML

Workflow 3.2: Resolving Merge Conflict

Select which change is the most current and up-to-date by clicking accept current change or accept incoming change.



```
<n1 id="pageTitle">UPS Styleguide</n1>
<h2 class="sectionHead">Primary Colors</h2>
<div class="colorContainer">
    <div class="swatch darkBlue"></div>
    <div class="hexCode">#345533</div>
    <div class="colorContainer">
        <div class="swatch darkGrey"></div>
        <div class="hexCode">#D3fe3</div>
    <div class="hexCode">#333366</div>
    </div> You, 3 months ago • initial website commit
    <div class="colorContainer">
        <div class="swatch darkGrey"></div>
        <div class="hexCode">#545454</div>
    >>>> 4783577d301079cf19053a2228cce0d9c1ca9dd4 (Incoming Change)
    <div class="colorContainer">
        <div class="swatch lightGrey"></div>
        <div class="hexCode">#E3E3E3</div>
    <div class="colorContainer">
        <div class="swatch white"></div>
```

Workflow 3.3: Resolving Merge Conflict

After all the conflicting files have been fixed, we can merge our code and push it back to the repo, all in GitHub Desktop.

