

SIQI (FERMI) FEI

# CSC309 Week 9

UI/UX & FIGMA & TAILWIND CSS & TYPESCRIPT

SIQI (FERMI) FEI

# Please join the Zoom for polls

**Meeting Code:**  
**8261305452**

**Password:**  
**300381**



# Breakdown

Welcome to 9th tutorial of CSC309!

TYPESCRIPT

INTOR  
FOR THIS COURSE

UI/UX

INTRO  
DEMO

FIGMA & TAILWIND

DEMO  
CODE CHALLENGE

## TYPESCRIPT

### Statically Typed Language

The type of a variable is checked at compile-time. You must declare the type, and it cannot change later.

Example: TypeScript, Java, C, C++.

```
1  int number = 10;  
2  number = "10"; //error
```

### Dynamically Typed Language

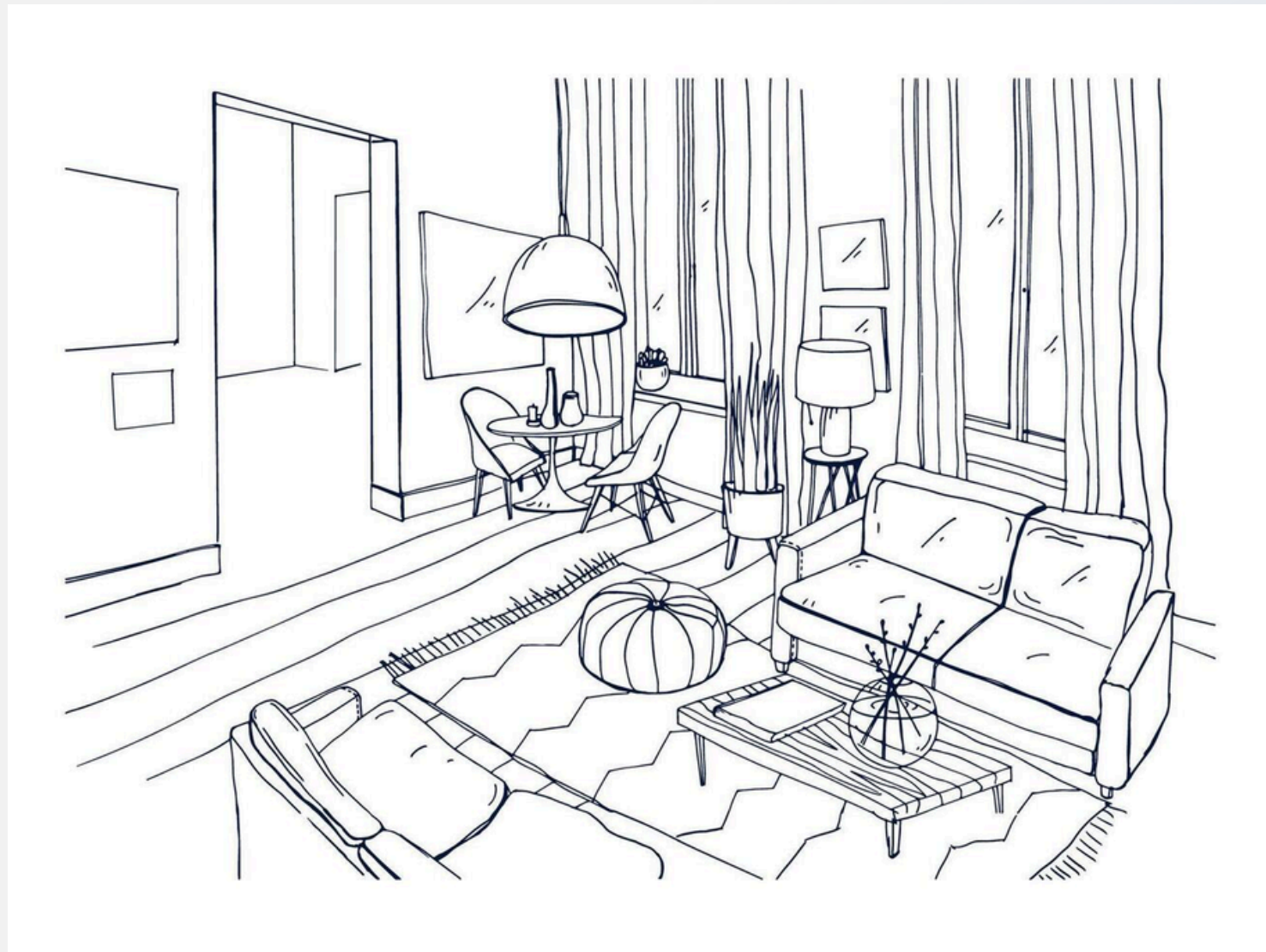
The type of a variable is checked at runtime. You don't need to declare types explicitly, and variables can hold different types at different times.

Example: JavaScript, Python, Ruby.

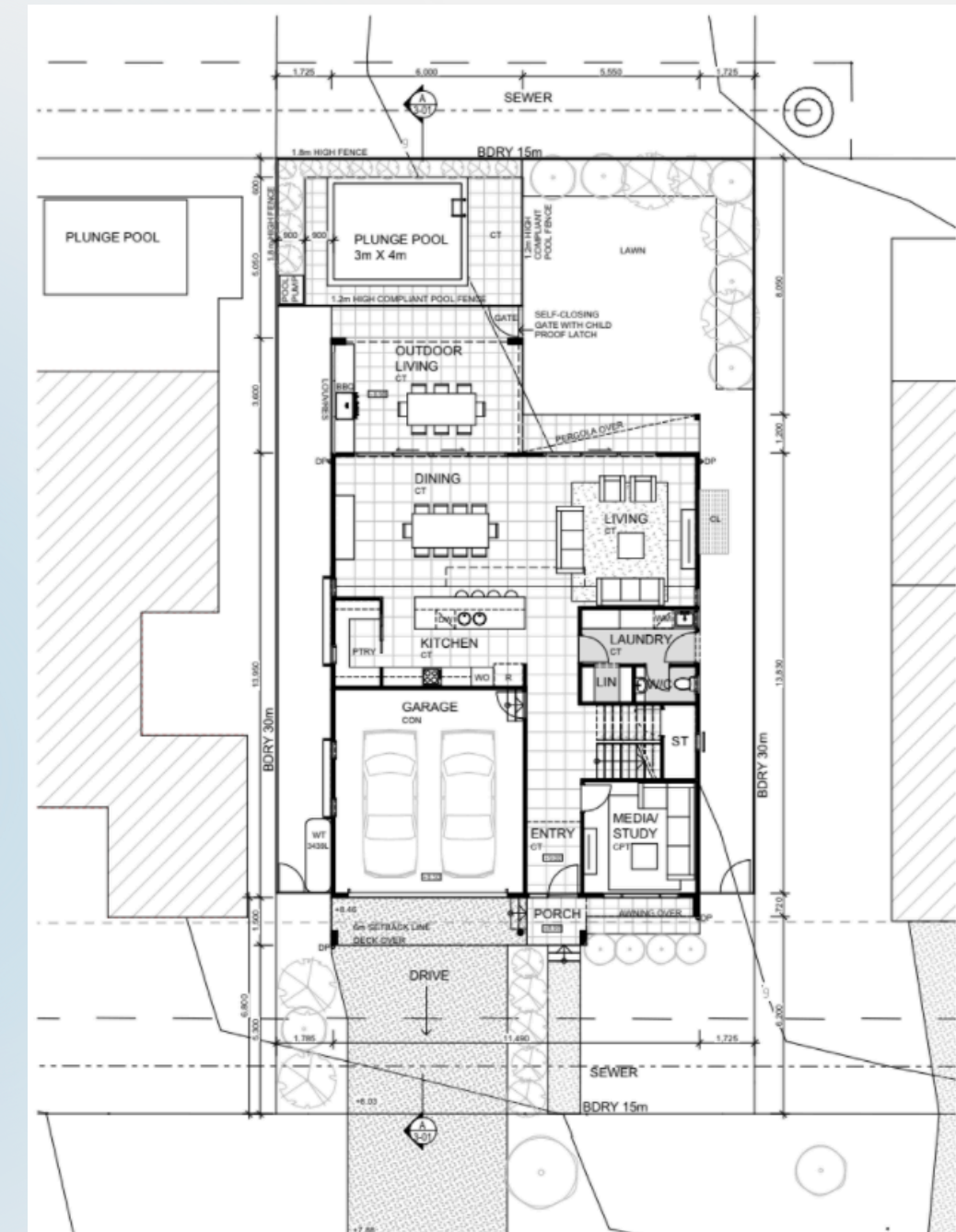
```
let number = 10;  
number = "hello world"; //It won't trigger the error  
Math.round(number) //only report error at run time
```



TYPESCRIPT



VS

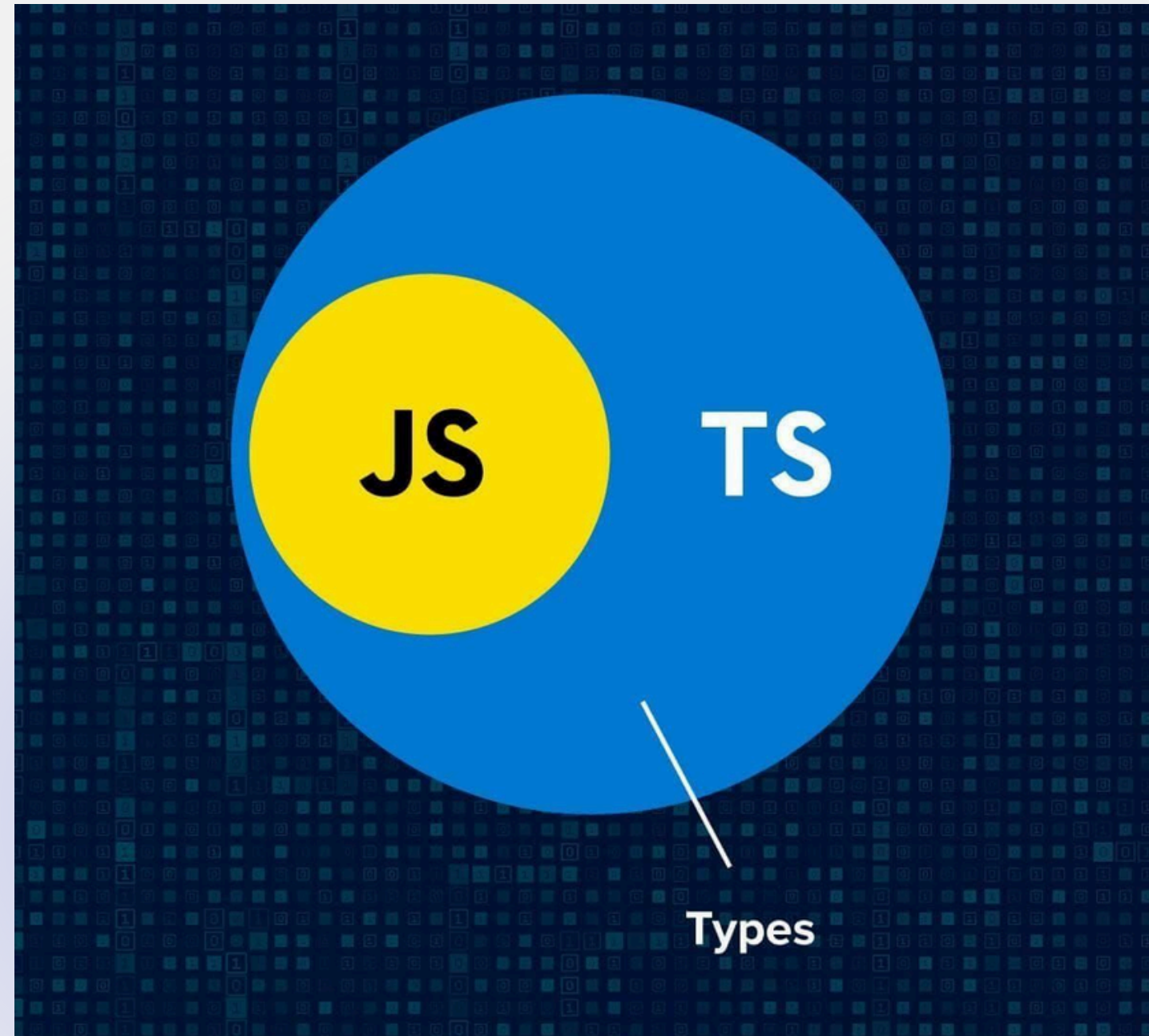


FREE-HAND DRAWING ROOM

BLUEPRINTS



TYPESCRIPT



**TypeScript is JavaScript with static type checking.**



TYPESCRIPT

# Implementation in your project

## JavaScript(No Type Checking)

```
1 export default function handler(req, res) {
2   if (req.method !== "POST") {
3     return res.status(405).json({ message: "Method Not Allowed" });
4   }
5
6   const { username, password } = req.body;
7
8   if (!username || !password) {
9     return res.status(400).json({ message: "Username and password are required" });
10  }
11
12  if (username === "admin" && password === "password123") {
13    return res.status(200).json({ message: "Login successful", token: "fake-jwt-token" });
14  } else {
15    return res.status(401).json({ message: "Invalid credentials" });
16  }
17 }
```

## TypeScript (With Static Typing)

```
1 import type { NextApiRequest, NextApiResponse } from "next";
2
3 interface LoginRequestBody {
4   username: string;
5   password: string;
6 }
7
8 interface LoginResponse {
9   message: string;
10  token?: string;
11 }
12
13 export default function handler(
14   req: NextApiRequest,
15   res: NextApiResponse<LoginResponse>
16 ) {
17   if (req.method !== "POST") {
18     return res.status(405).json({ message: "Method Not Allowed" });
19   }
20
21   const { username, password } = req.body as LoginRequestBody;
22
23   if (!username || !password) {
24     return res.status(400).json({ message: "Username and password are required" });
25   }
26
27   if (username === "admin" && password === "password123") {
28     return res.status(200).json({ message: "Login successful", token: "fake-jwt-token" });
29   } else {
30     return res.status(401).json({ message: "Invalid credentials" });
31   }
32 }
33
```

## TYPESCRIPT

name\_of\_the\_file.**js**

A standard JavaScript file without JSX or TypeScript, typically used for general scripting or backend logic.

name\_of\_the\_file.**jsx**

A JavaScript file that supports JSX, commonly used in React to define components with embedded HTML-like syntax.

name\_of\_the\_file.**ts**

A TypeScript file that enforces static typing but does not support JSX syntax, mainly used for logic-heavy or backend-related TypeScript code.

name\_of\_the\_file.**tsx**

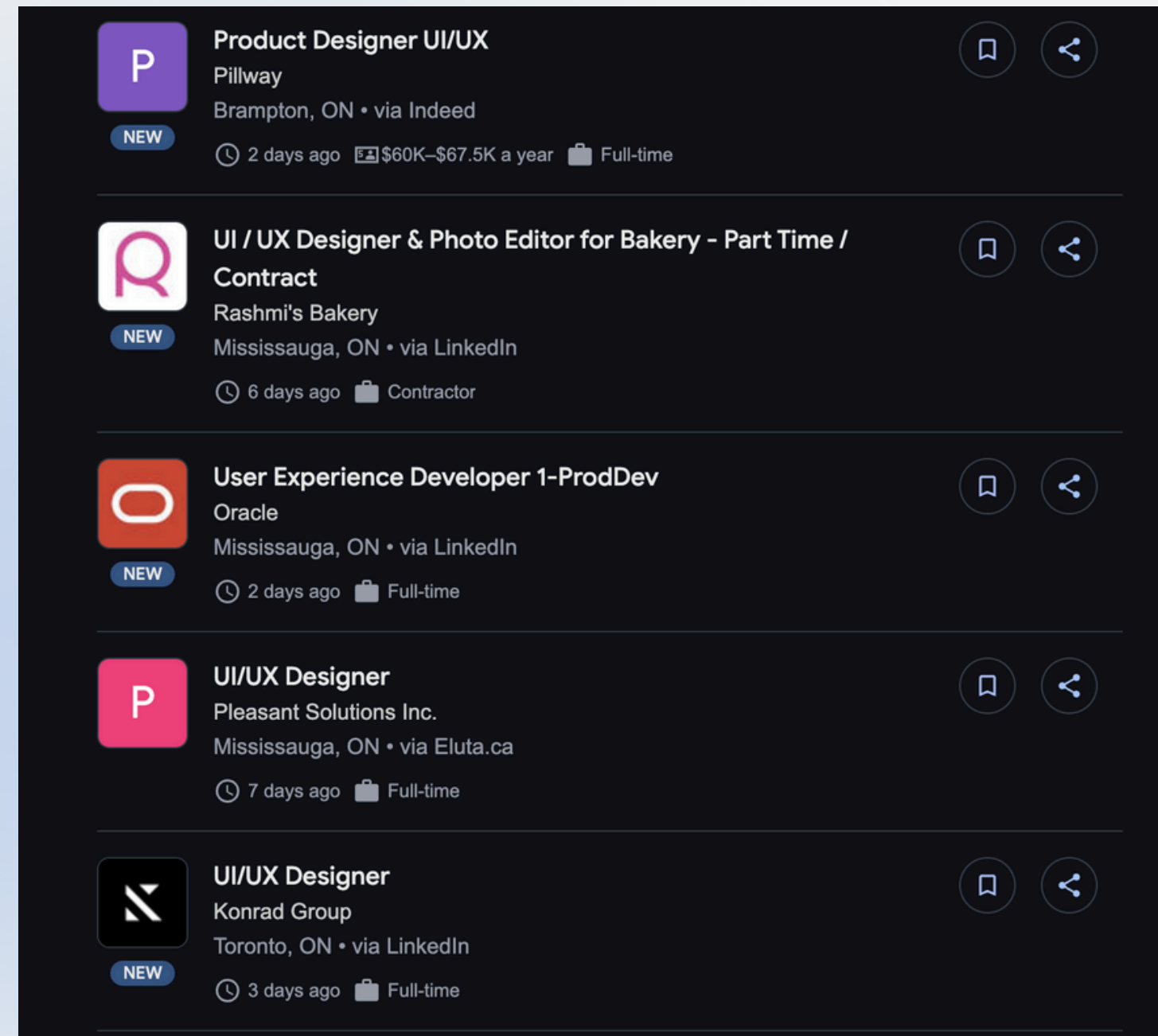
A TypeScript file that supports both static typing and JSX, ideal for defining strongly-typed React components.

## SMALL TIPS



UI/UX

If you've seen  
them on a job  
board...



And you plan to be a  
frontend developer...

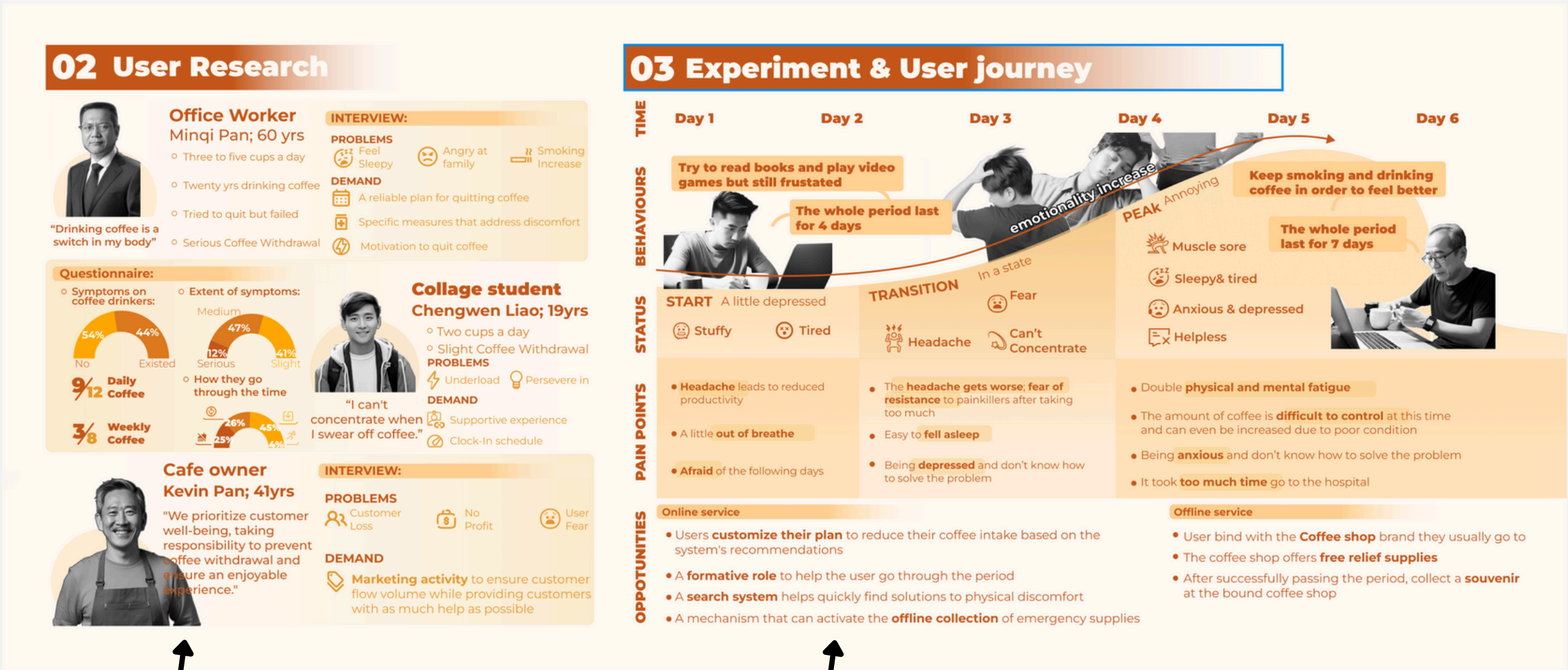
UI/UX



UI/UX



# What does UX do?

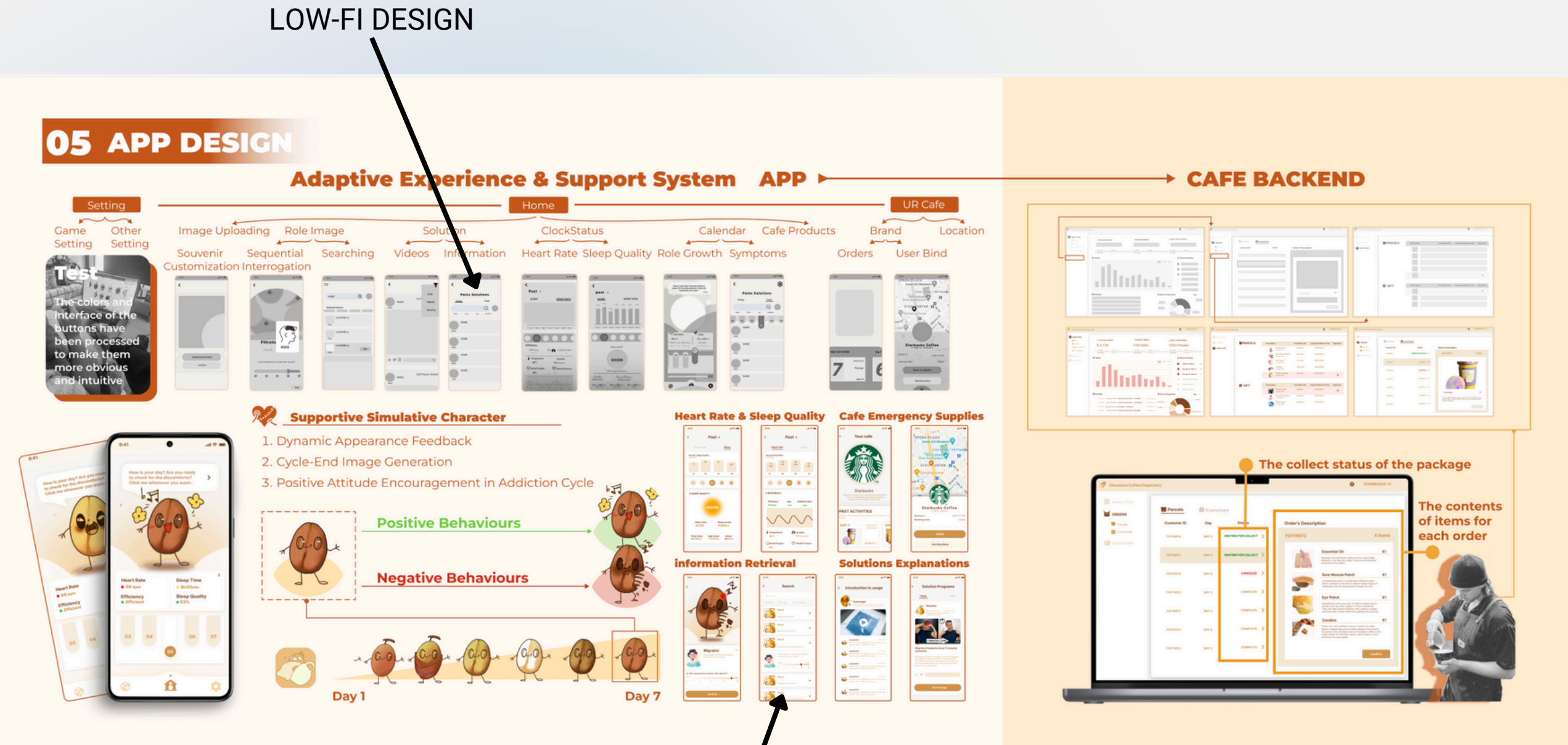


TARGET GROUP

CUSTOMER ANALYSIS

-VIEONA PAN, UNIVERSITY OF NEW SOUTH WALE, SYDNEY, AUS

# What does UI do?



-VIEONA PAN, UNIVERSITY OF NEW SOUTH WALE, SYDNEY, AUS



## FIGMA & TAILWIND



**DEMO**

## FIGMA & TAILWIND CSS

- Using the starter code in github classroom to complete the challenge.
  - Your goal is to “normalize” this page.
  - Replace all the place holder with a proper content.
  - Your final work should looks like this:
- push your work to the remote git, so I can receive the work
  - To be fair, the ddl is today at 9PM



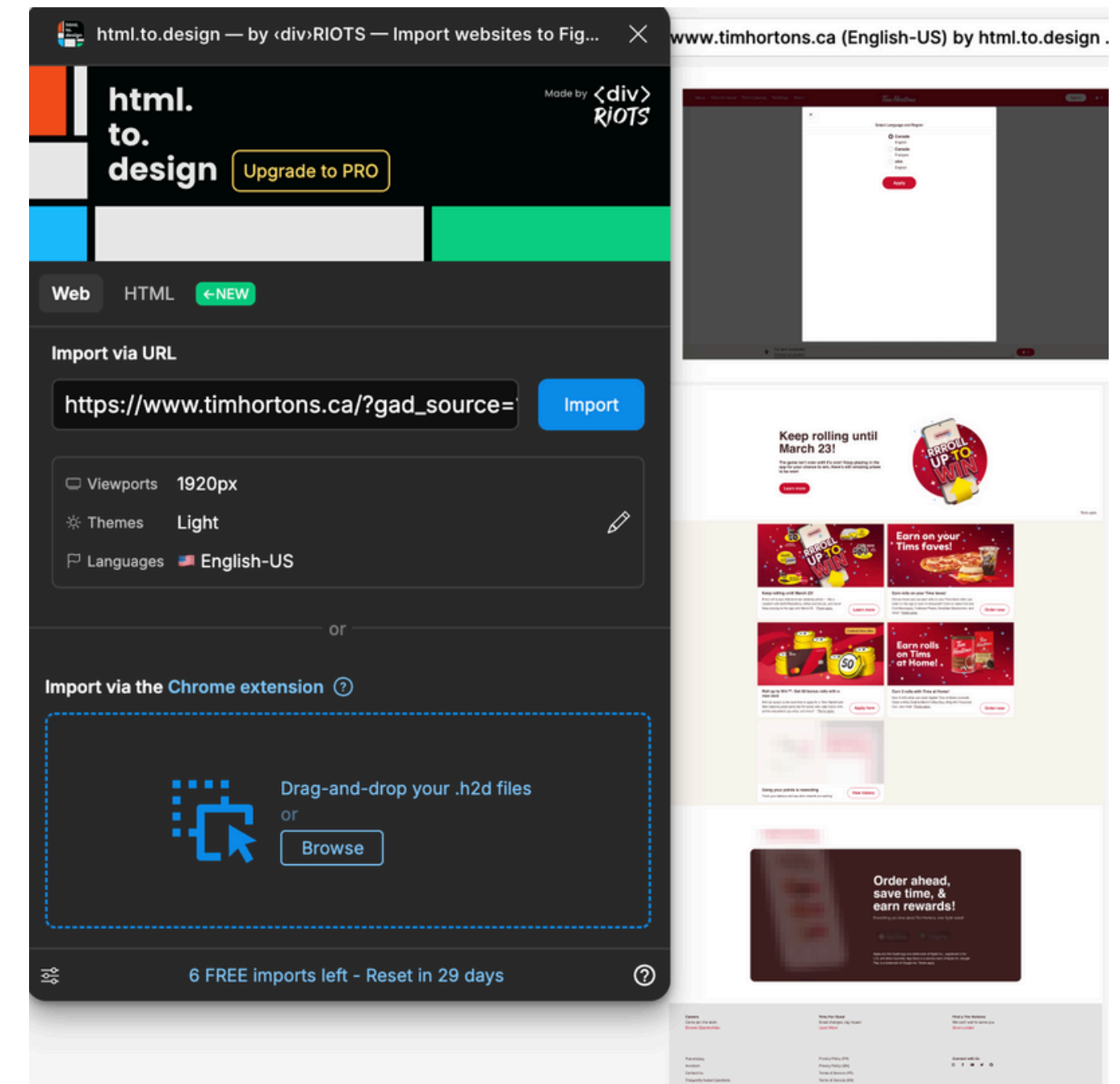
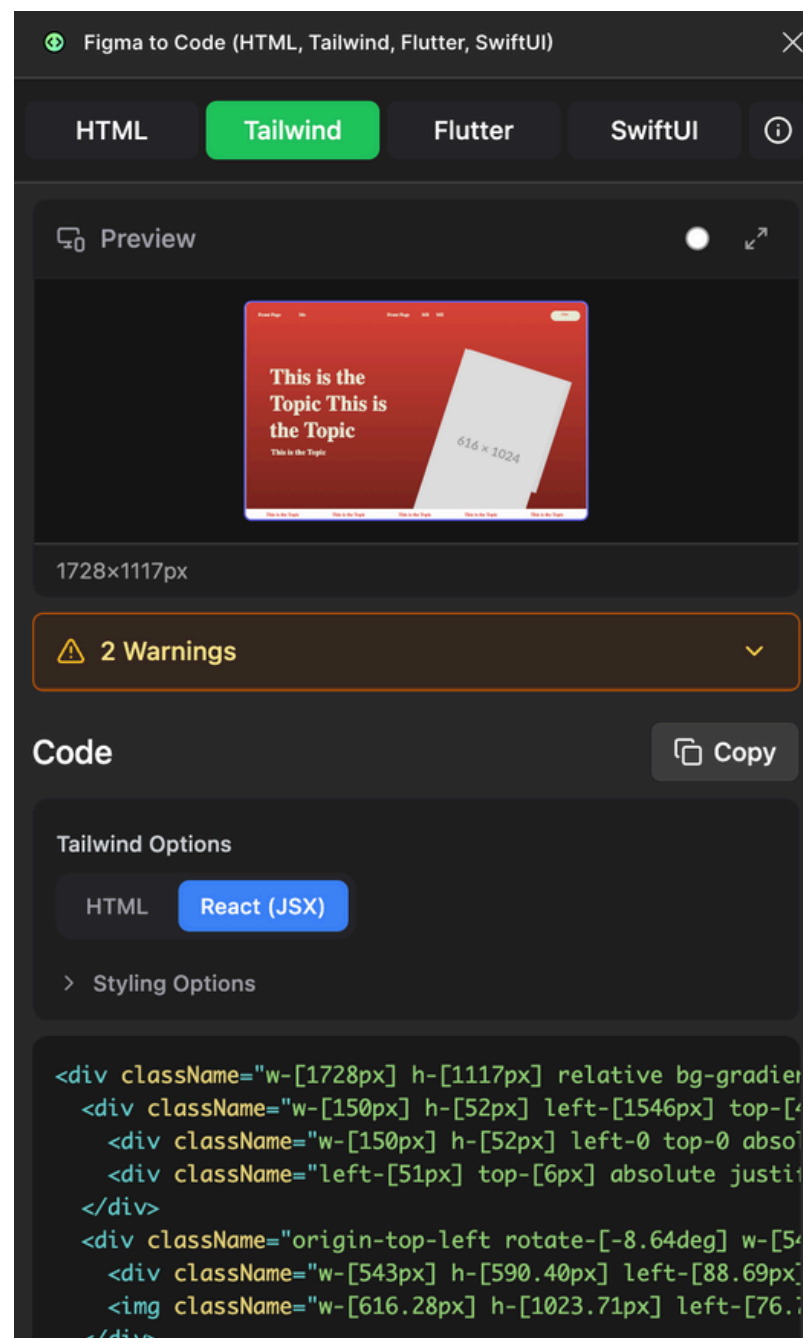
## Code Challenge



# Repo for Code Challenge:

## [https://github.com/CSC309W9/Figma\\_to\\_Tailwind.git](https://github.com/CSC309W9/Figma_to_Tailwind.git)

- Figma is NOT mandatory to use for the project, it just a tool UI/UX uses
- Figma has free edu account if you want to use it.
- Two plugins we used in Figma:



SIQI (FERMI) FEI

# Thank You

And my friend, Vieona Pan, for her contributions to the Tutorial Material.

**CSC309 Week 9**

10 MARCH, 2025