

# Foundation class for 100xdevs cohort

What we're learning

1. VSCode
2. HTML
3. CSS
4. JS
5. DOM
6. Assignments

# What we'll learn practically

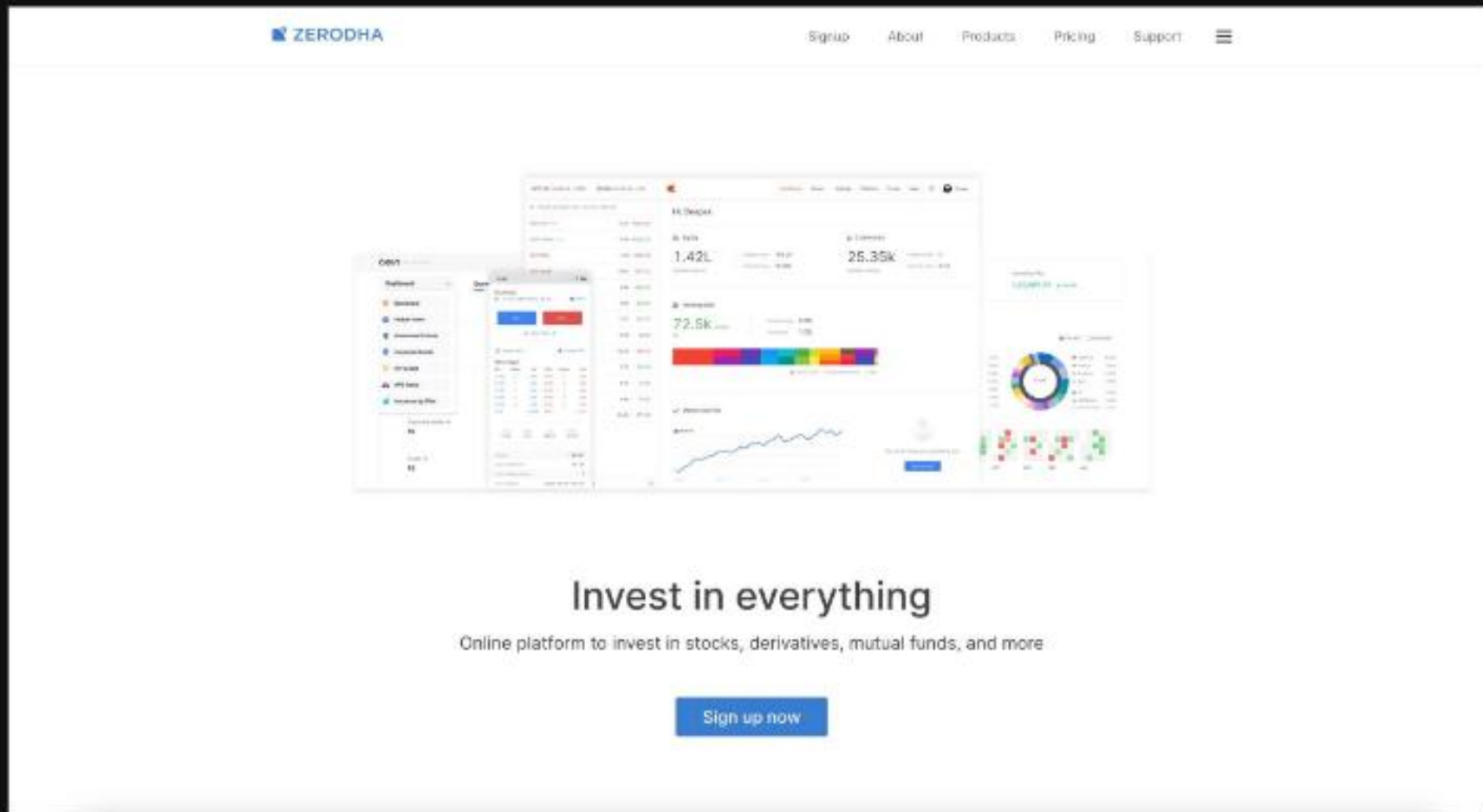
## Small boi stuff

1. Tags
2. Attributes
3. Inline styles (bg color, fonts ...)
4. JS Basics, data types, loops, fns...

## Big boi stuff

1. External styles, classes and ids
2. Flexbox
3. Connecting JS to HTML (selectors, DOM)
4. Chrome Dev tools

# What we're building



# Stage 1

## (HTML Only)

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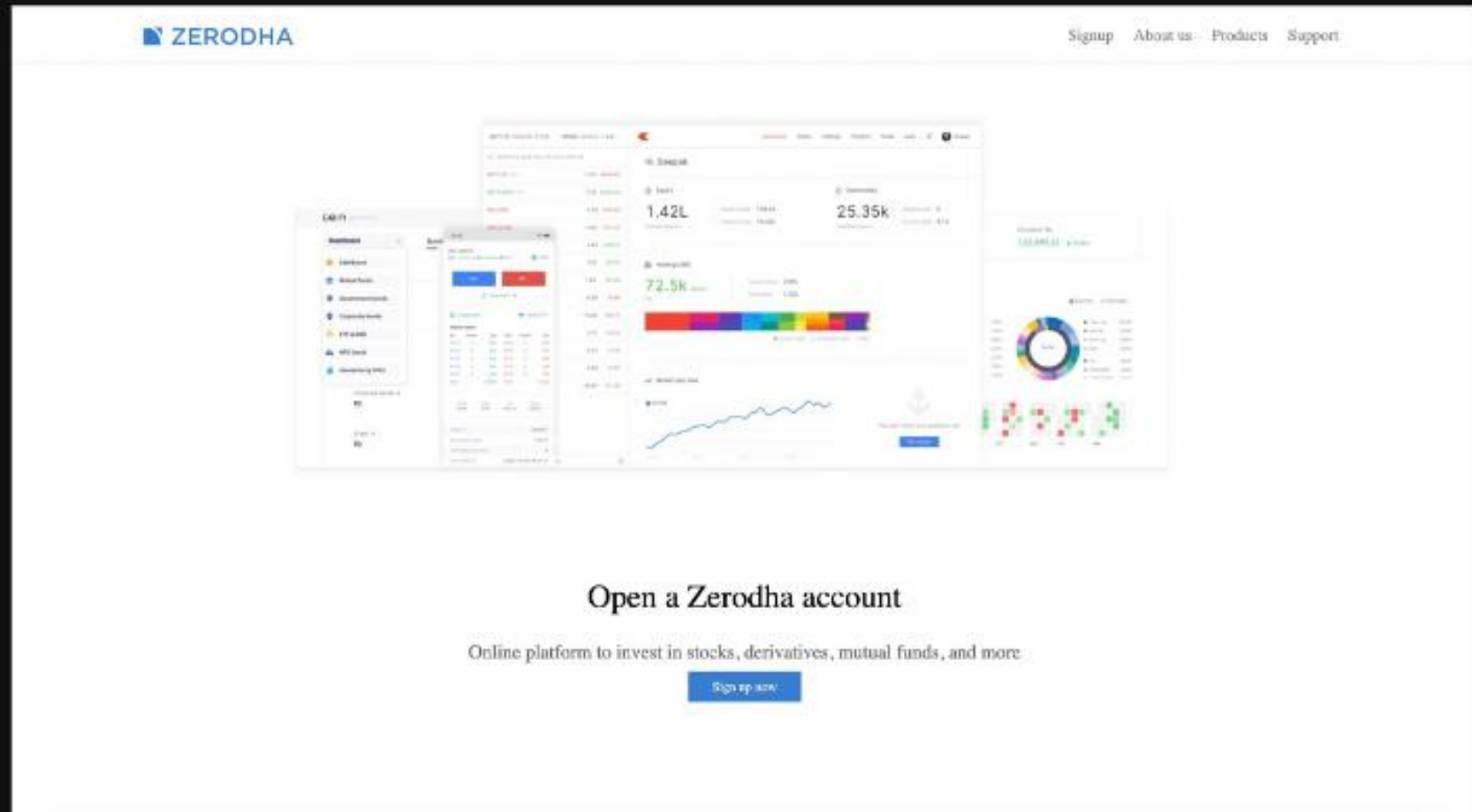
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# Stage 2

## (HTML + CSS)



Open a Zerodha account

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# Stage 3

JS

Create a portfolio returns calculator

A hand-drawn sketch of a user interface for a portfolio returns calculator. The interface is contained within a rounded rectangle and features five input fields. On the left side, three fields are stacked vertically, labeled 'Capital', 'Years', and 'Interest'. To the right of these, there is a single field containing the text '4 Cr'. At the bottom of the interface is a wide, horizontal button labeled 'Calculate'.

# Before we start

What are browsers? How do they **render** websites?

What purpose do HTML/CSS/JS serve

How much of this do we actually use in the industry -

1. html => very minimal
2. css => minimal
3. js - heavy

# IDE

VSCode

Vim

WebStorm



# HTML

Defines the structure of your website

2 jargon we need to know of -

1. Tags

2. Attributes

# HTML Tags

- <html>
- <head>
- <title>
- <body>
- <div> / <span>
- <h1> .. <h6>
- <p>
- <img>
- <a>
- input
- <button>
- <b> / <i>
- <center>

# Attributes

- ``
  - `<a href="google.com">`
  - `<button onclick="">`
  - `<input id="username">`
- 
- `<input id="username">`

# CSS

They let you add **styles** to your website (colors, font sizes, background colors ...)

Used for positioning things on the page

# How to add styles?

5

4

```
<h1>hi there</h1>
```



File | /Users/kirat/Projects/100xdevs/foundation-class/index.html

**hi there**

# How to add styles?

```
3  
4 <h1 style="color: ■ red; background: ■ green;">hi there</h1>|
```



# Common styling attributes

color

background

border-radius

border

padding / margin

box-shadow

# How to position?



divs always take up all the space available horizontally  
spans only take up as much space as needed

Can you make divs take only the space they need?



# How to position?



# Dumb way



float property

# Right way Flex box

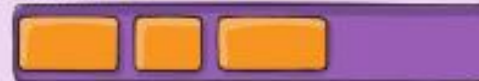
**display: flex**

**on parent**

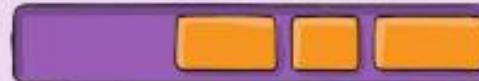
makes all div siblings reside  
**in the same line**

**justify-content**

flex-start



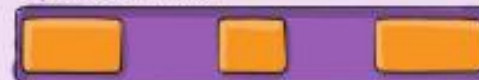
flex-end



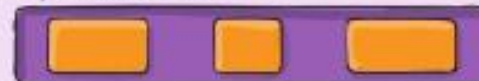
center



space-between



space-around



space-evenly



# Javascript

It is a scripting language

It can be used to solve algorithmic problems/do ML/do  
backend development

Specifically for websites, it is useful to add functionality to  
your website (for example, a returns calculator)

We're going to practise on [repl.it](https://repl.it) first

# For JS (or any language), you need to know

- variables
- Simple Data types (strings, numbers, boolean)
- Complex Data types (arrays and objects)
- Control statements and operators
- Loops
- Functions

# Problems to understand these

1. Count from 1 to 1000
2. Is Palindrome?
3. Find the name of the oldest person in a group

Take home assignment -

Find the age of k oldest people in the group

<https://leetcode.com/problem-list/top-interview-questions/?topicSlugs=string&page=1&difficulty=EASY>

<https://leetcode.com/problem-list/top-interview-questions/?topicSlugs=array&page=1&difficulty=EASY>



# Connecting JS to returns tracking app

First let's write a function that takes 3 inputs

1. `numberOfYears`

2. `base`

3. `yearlyGains`

and returns net portfolio value

# Assignment

A hand-drawn calculator interface with a rounded rectangular border. On the left side, there are four stacked input fields labeled "Capital", "Years", "Interest", and "calculate". On the right side, there is a checkbox labeled "Compound?" in red, and below it, a display area showing "4 Cr".

Capital

Years

Interest

calculate

☐ Compound?

4 Cr