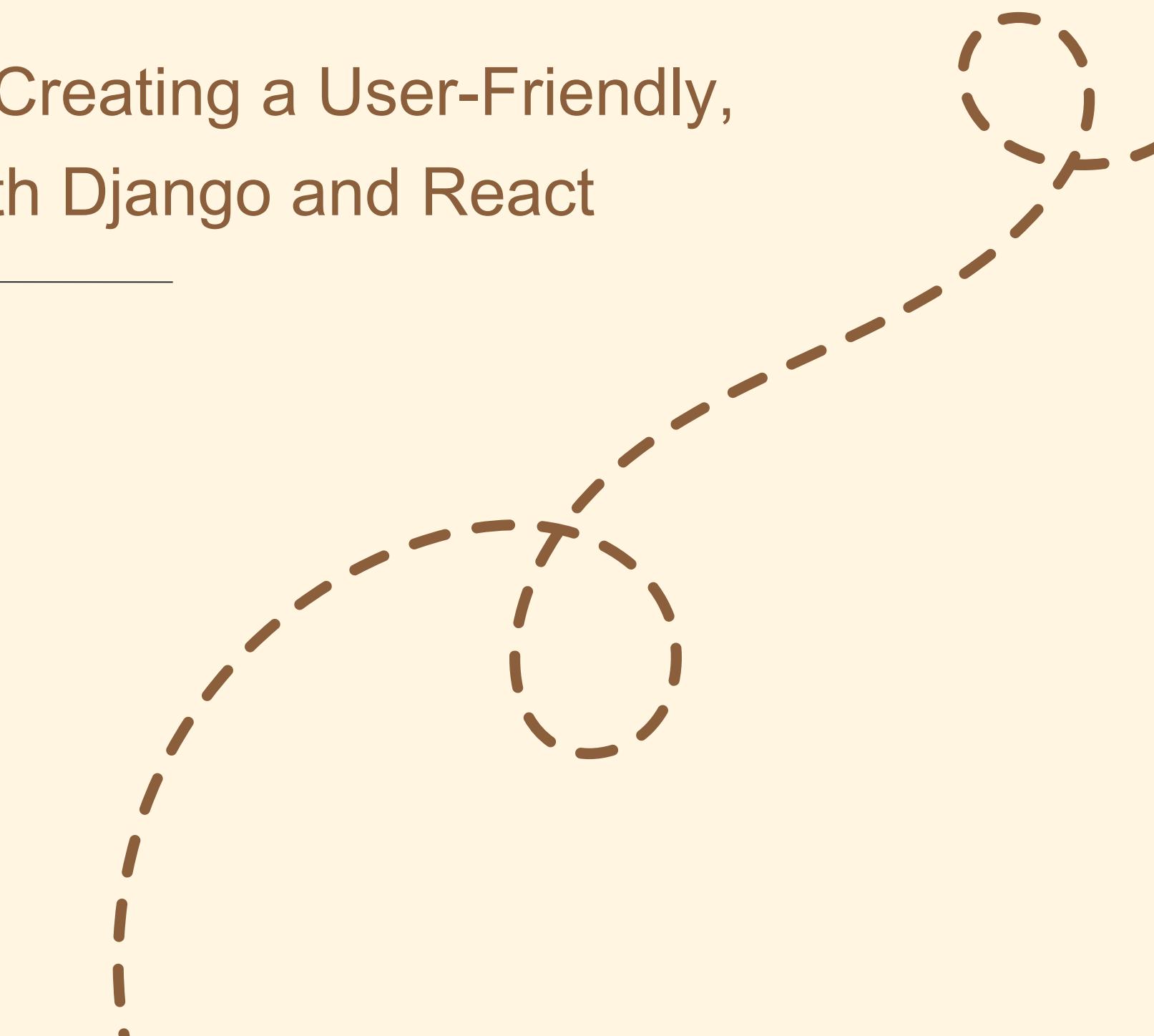


How I Created Knit To Knit: Lessons in Creating a User-Friendly, Secure, and Optimized Website with Django and React

by Marco Cassar

November, 2024



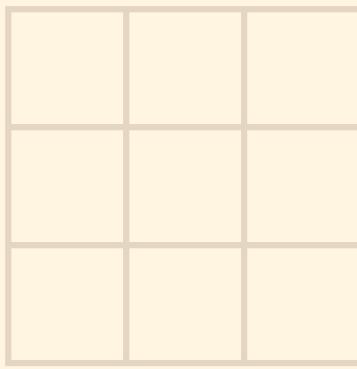
But Marco Why Knitting?



November, 2024

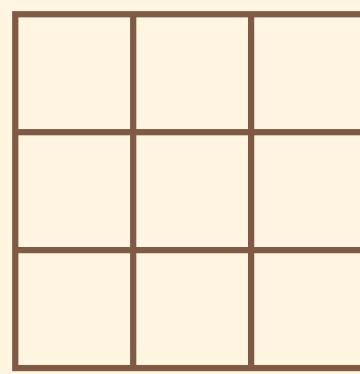
Key Knitting Challenges?

Knit To Knit



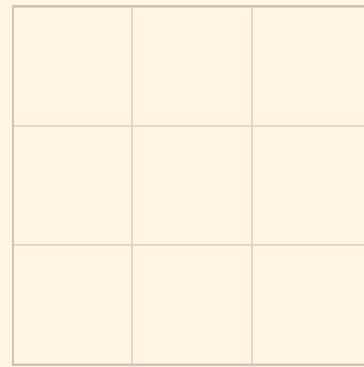
Key Knitting Challenges?

Knit To Knit



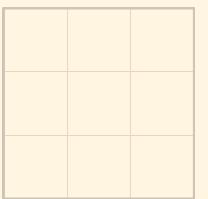
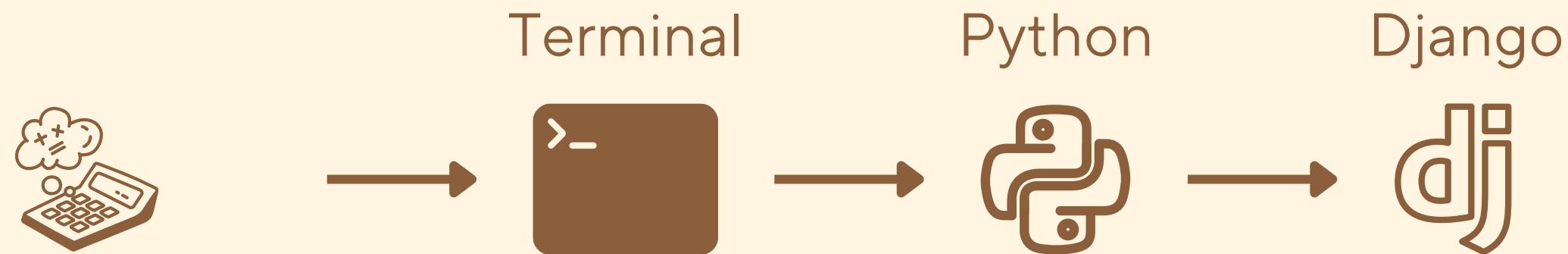
Key Knitting Challenges?

Knit To Knit



Solutions Progression

Knit To Knit

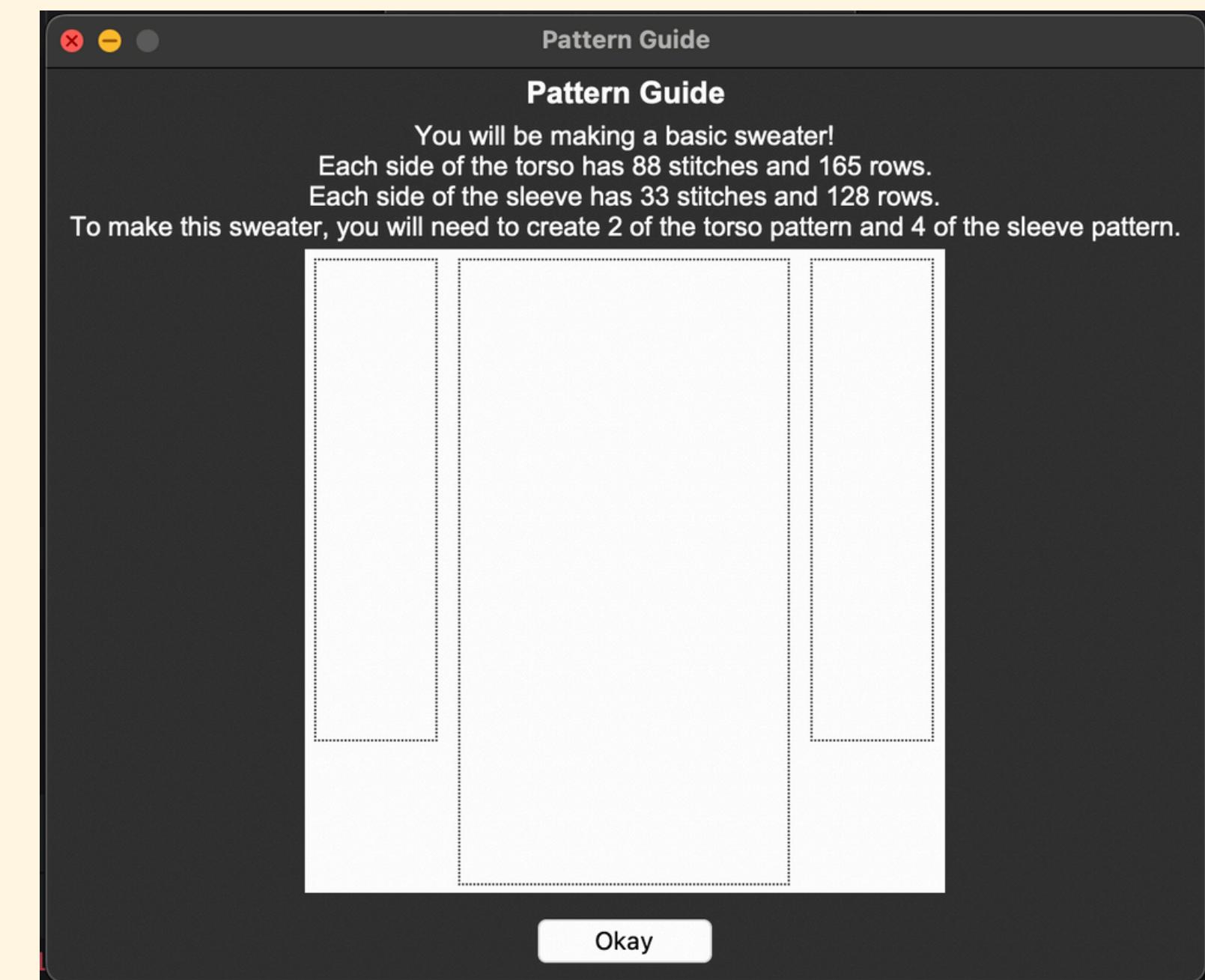
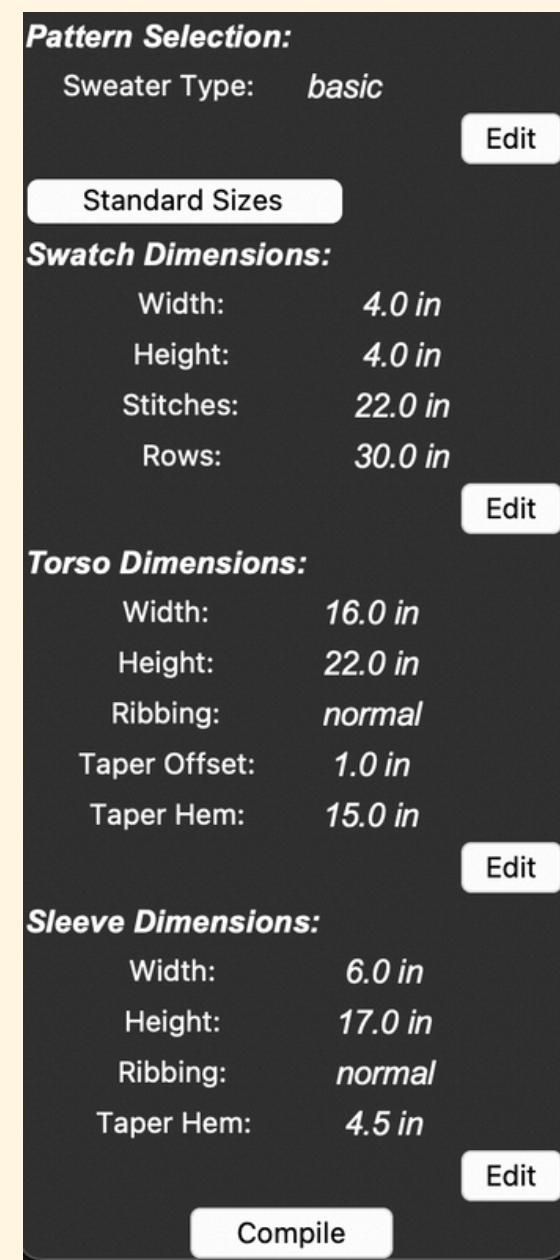
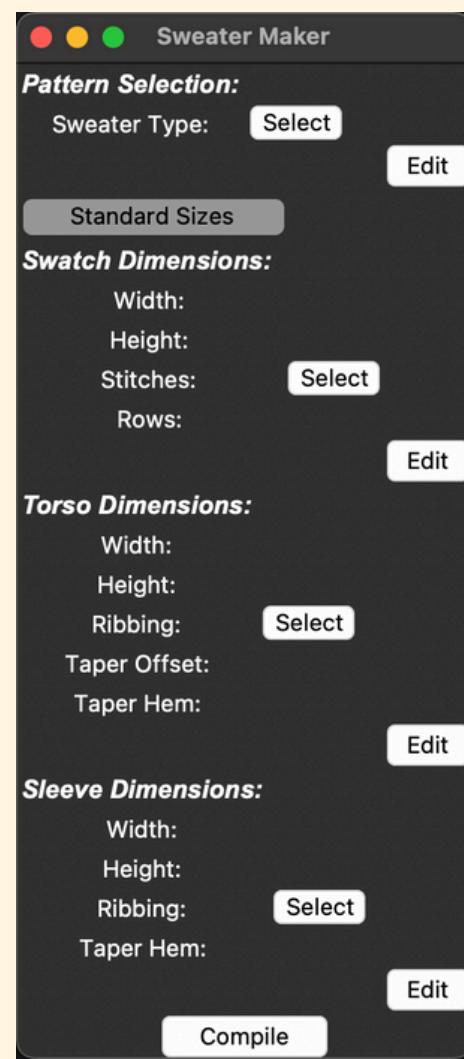


Terminal Style Output To Calculate Decreases

```
stitches_decrease target test: [1, 2, 3, 4]
rows_decrease target test: [2, 2, 2]
inputs: 2.44 10.39 4.88 33 1.636 2.457
half_stitches 10
remaining_rows 6
starting stitch: 17
stitches_decrease: [1, 2, 3, 4]
rows_decrease: [6, 2, 2, 2]
left i: 0
left i: 1
left i: 2
left i: 3
[(17, 0), (17, 6), (18, 6), (18, 8), (20, 8), (20, 10), (23, 10), (23, 12), (27, 12)]
right i: 3
right i: 2
right i: 1
right i: 0
[(27, 12), (31, 12), (31, 10), (34, 10), (34, 8), (36, 8), (36, 6), (37, 6), (37, 0)]
```

Solutions Progression

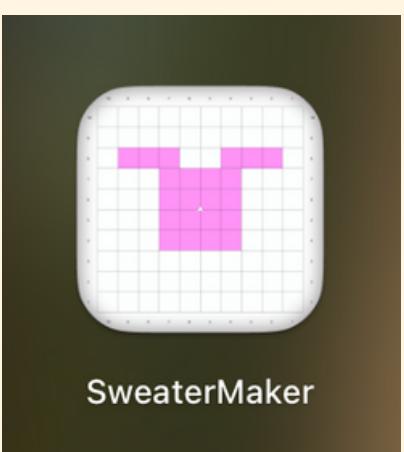
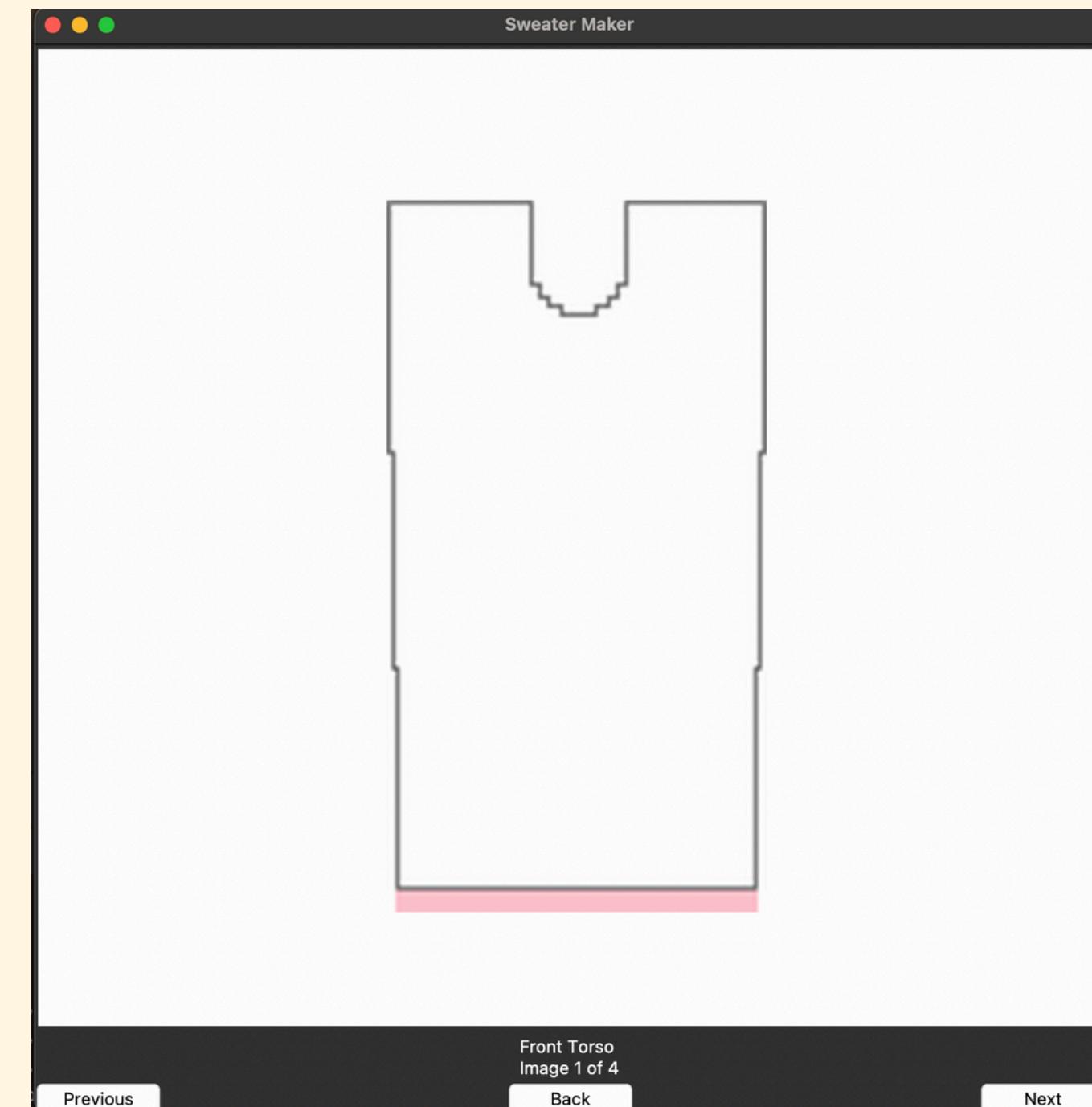
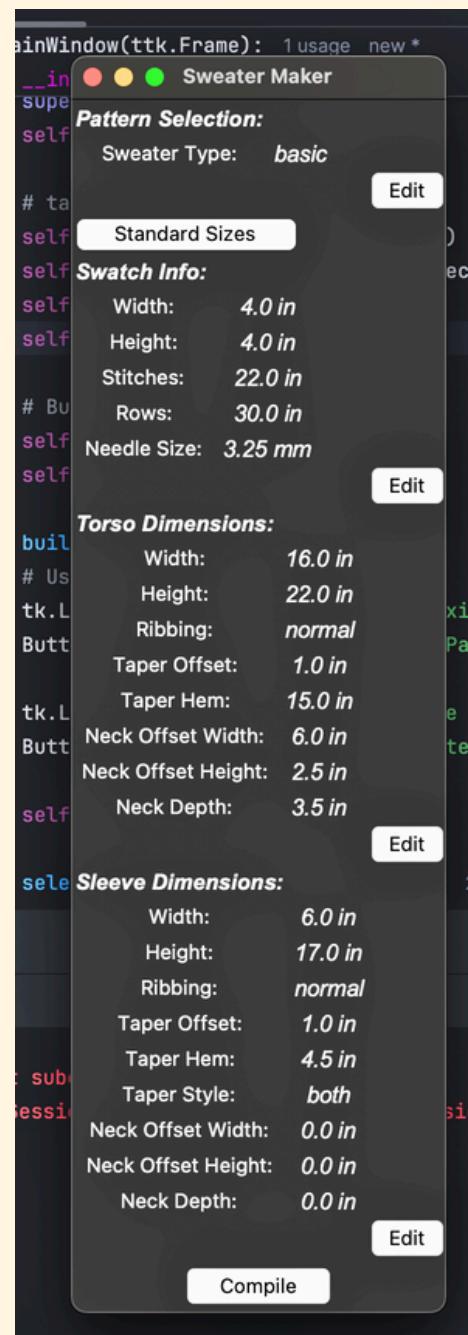
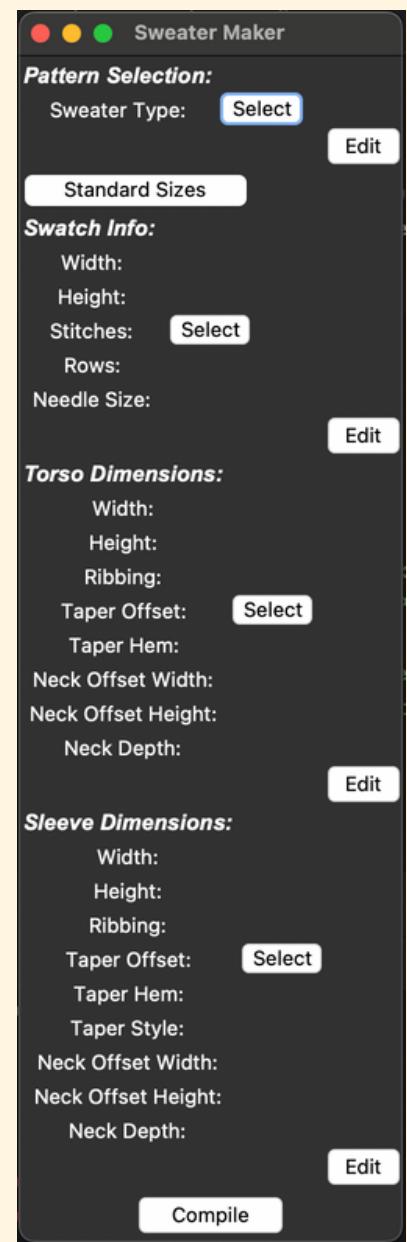
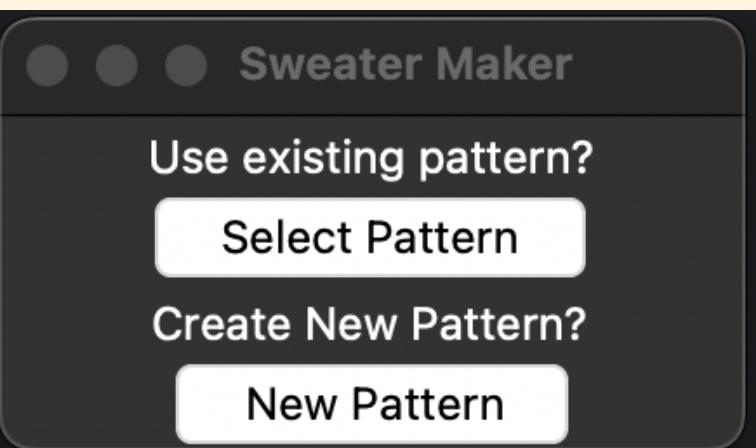
Knit To Knit



Beginning App Style for
Calculations

Solutions Progression

Knit To Knit



Finished-ish App Style

Solutions Progression

Knit To Knit

The screenshot shows a web application for knitting pattern creation. The interface includes a navigation bar at the top with links for HOME, ABOUT, CONTACT, and ADMIN. The main content area features three sections: 'Pattern Selection', 'Swatch Info', and 'Torso Dimensions'. The 'Pattern Selection' section contains fields for 'Pattern Name' (with placeholder 'Enter pattern name'), 'Pattern Content' (with placeholder 'Enter pattern content'), and 'Sweater Type' (set to 'Separated Sweater'). The 'Swatch Info' section lists five input fields: 'Width' (Ex. 4in), 'Height' (Ex. 4in), 'Stitches' (Ex. 20stitches), 'Rows' (Ex. 28rows), and 'Needle Size' (Ex. 3.5mm). The 'Torso Dimensions' section shows a single input field for 'Width' (Ex. 17in). On the left side, there is a vertical sidebar titled 'KNITTING NAVBAR' with buttons for Dashboard, Patterns, Pattern Create, Designs, and Design Create. The background of the sidebar features a repeating pattern of colorful knitted textures.

Knit-to-Knit

KNITTING NAVBAR

Dashboard

Patterns

Pattern Create

Designs

Design Create

Open <http://localhost:5173> in a new tab and focus it

HOME ABOUT CONTACT ADMIN

Pattern Selection

Pattern Name: Enter pattern name

Pattern Content: Enter pattern content

Sweater Type: Separated Sweater

Swatch Info

Width: Ex. 4in

Height: Ex. 4in

Stitches: Ex. 20stitches

Rows: Ex. 28rows

Needle Size: Ex. 3.5mm

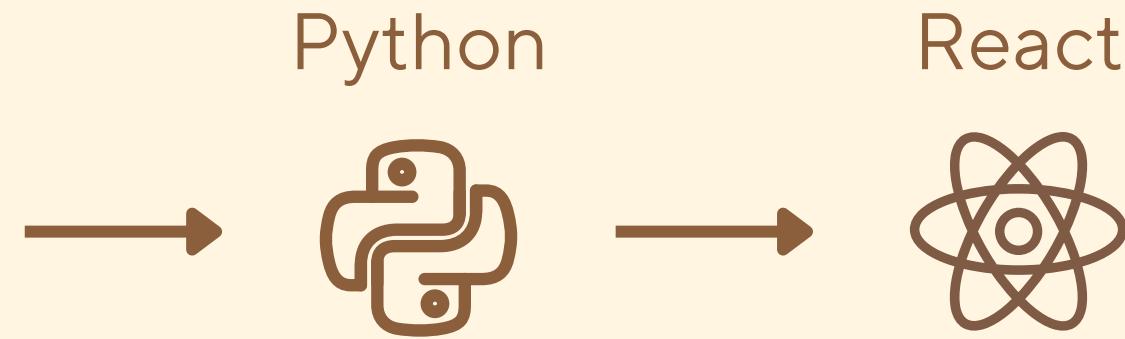
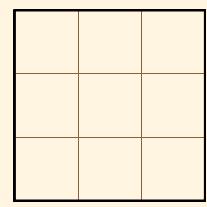
Torso Dimensions

Width: Ex. 17in

Website Style

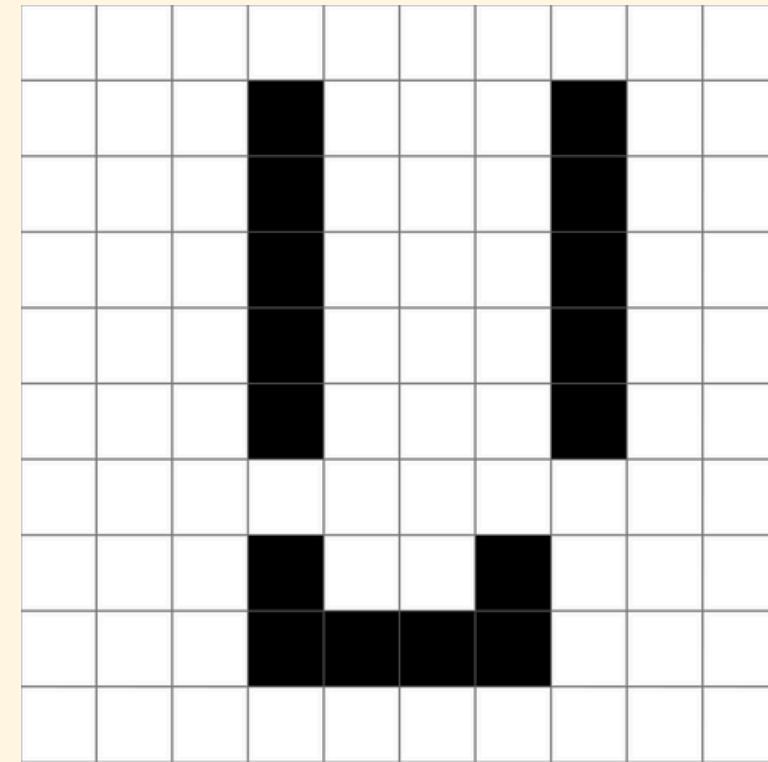
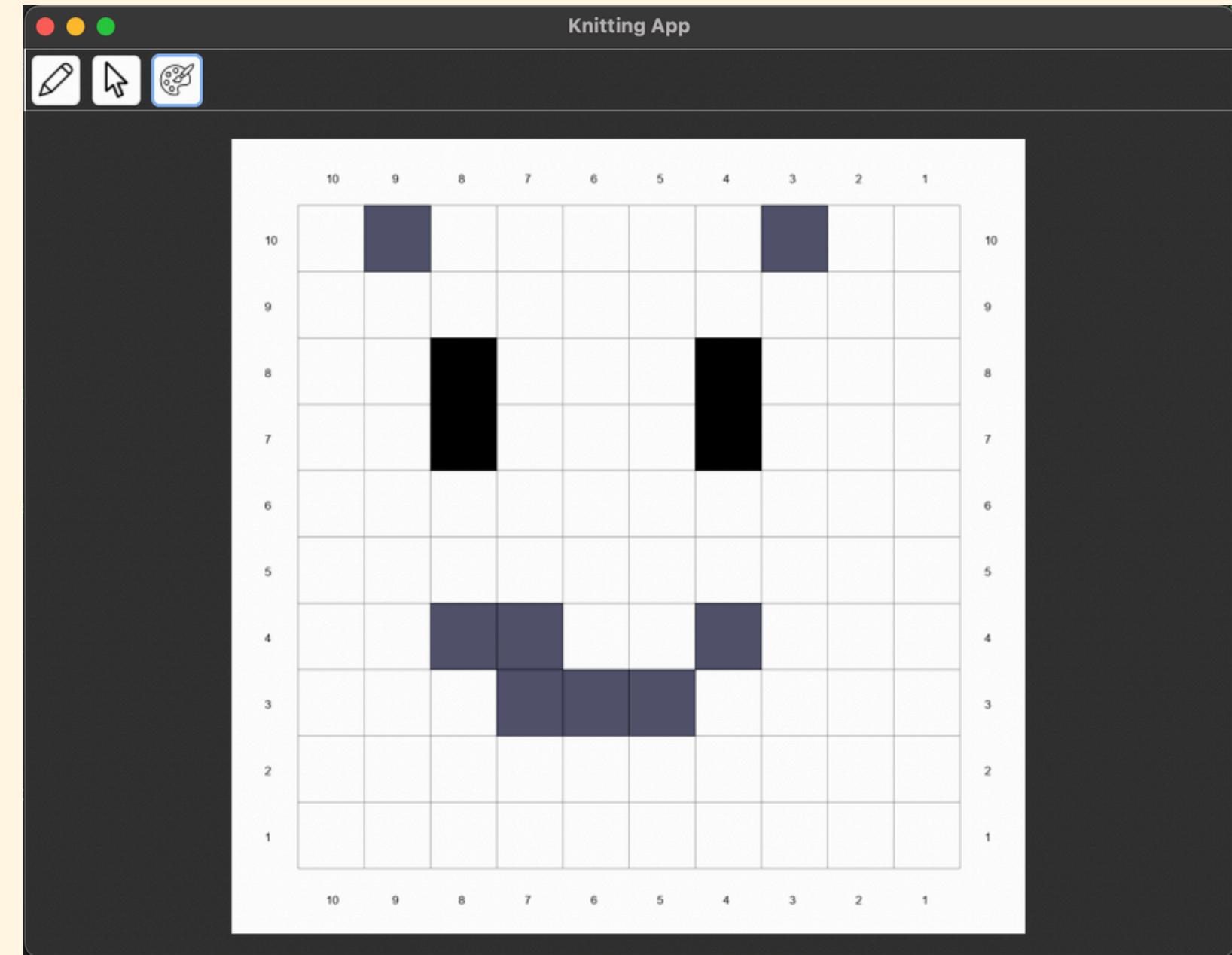
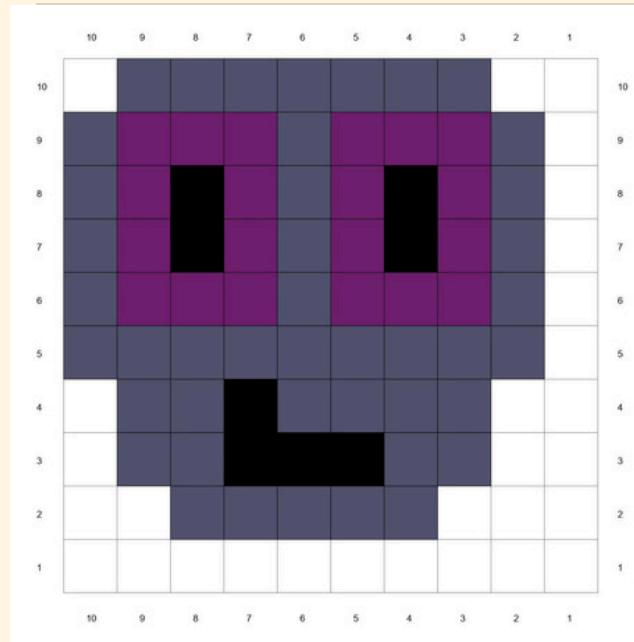
Solution Progression

Knit To Knit



Solutions Progression

Knit To Knit



Beginning App Style Grid Editor



Website Grid Editor

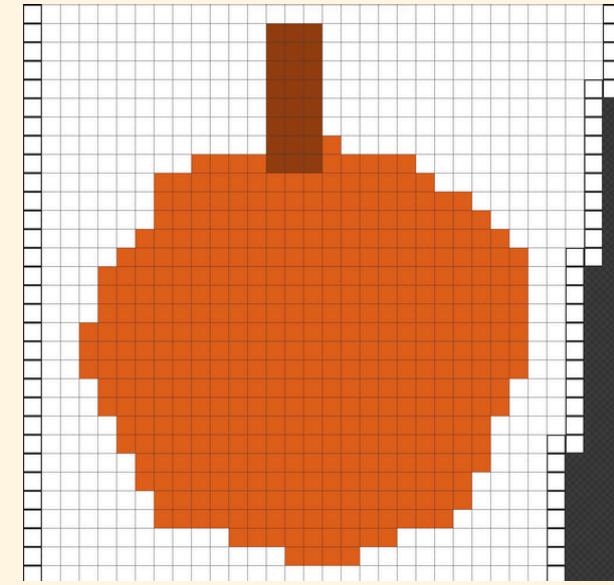
Credit: Lizzie Deboar

Solutions Progression

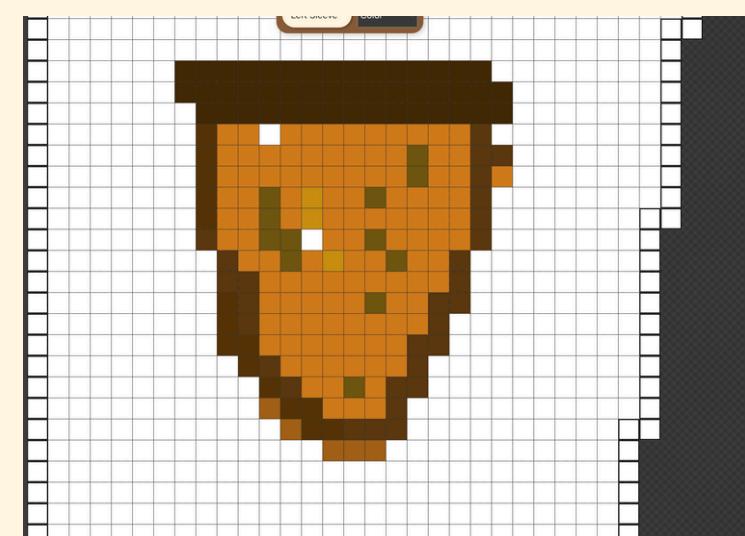
Knit To Knit



Credit: Lizzie Deboar



Credit: Lizzie Deboar



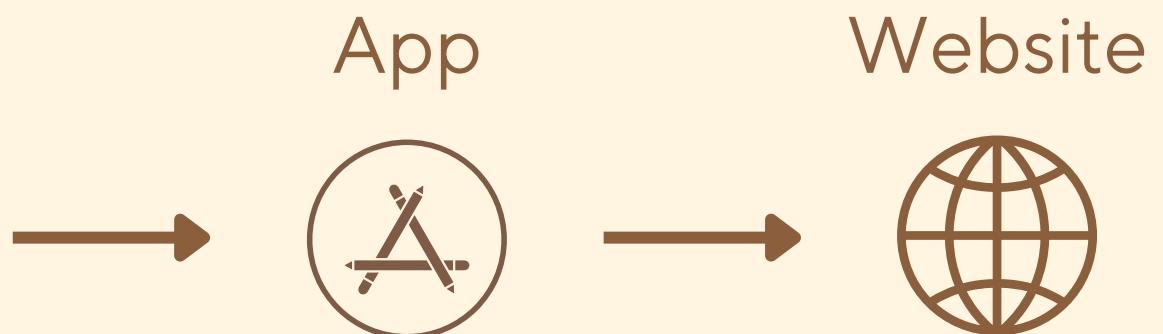
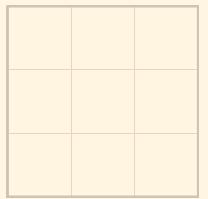
Credit: My Crappy Art



Credit: Dr. Davis

Solution Progression

Knit To Knit



Solution Progression

Knit To Knit

The screenshot shows the Knit-to-Knit web application interface. On the left is a vertical sidebar titled "KNITTING NAVBAR" featuring a background image of colorful knitted fabric. The sidebar contains the following menu items:

- Dashboard
- Patterns
- Pattern Create
- Designs
- Design Create

At the top right of the main content area is a navigation bar with links for HOME, ABOUT, CONTACT, and ADMIN.

The main content area starts with a "Welcome!" message and a brief description: "Thank you for trying us out! Here's a quick look at your recent patterns and grid designs."

Dashboard

3 Recent Patterns

Example Sweater
A sweater with tapering, a neckline, and ribbing
Created at: 11/25/2024, 11:07:11 AM
Last Edited: 11/25/2024, 11:07:11 AM

Pumpkin Sweater
Classic Pumpkin :)
Created at: 11/25/2024, 1:39:12 PM
Last Edited: 11/25/2024, 1:39:12 PM

[Quick Link to New Pattern](#)

3 Recent Grid Designs

[Quick Link to New Grid Design](#)

Solution Progression

Knit To Knit

The screenshot displays the 'Your Patterns' section of the Knit-to-Knit application. On the left, a vertical sidebar titled 'KNITTING NAVBAR' features a background image of various knitted textures. It contains five buttons: 'Dashboard', 'Patterns', 'Pattern Create', 'Designs', and 'Design Create'. At the top right of the main content area, there is a navigation bar with links for 'HOME', 'ABOUT', 'CONTACT', and 'ADMIN'. The main content area is titled 'Your Patterns' and lists two patterns: 'Example Sweater' and 'Pumpkin Sweater'. Each pattern card includes a title, a brief description, and creation/editing details.

KNITTING NAVBAR

- Dashboard
- Patterns
- Pattern Create
- Designs
- Design Create

HOME **ABOUT** **CONTACT** **ADMIN**

Your Patterns

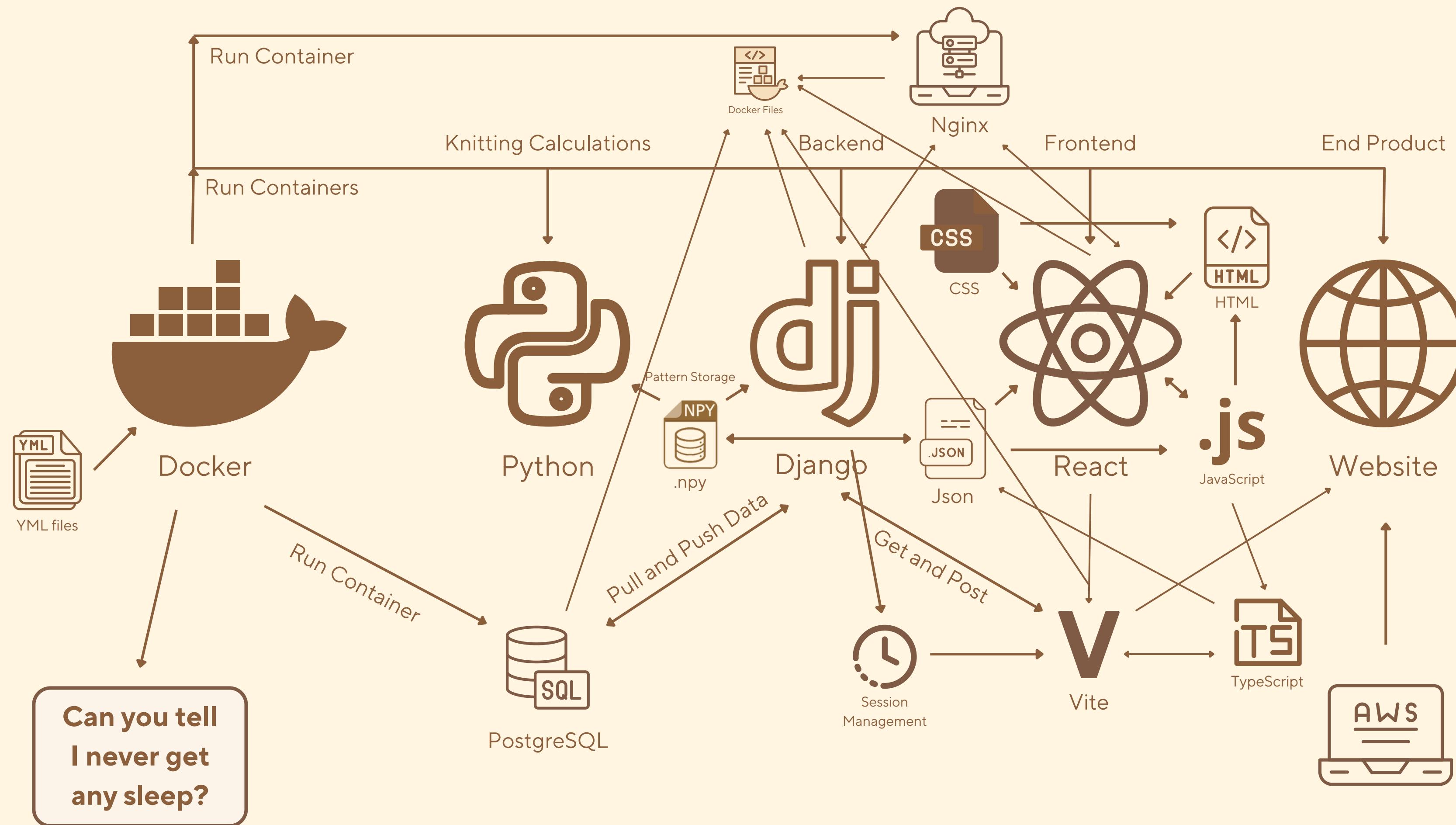
Example Sweater
A sweater with tapering, a neckline, and ribbing
Created at: 11/25/2024, 11:07:11 AM
Last Edited: 11/25/2024, 11:07:11 AM

Pumpkin Sweater
Classic Pumpkin :)
Created at: 11/25/2024, 1:39:12 PM
Last Edited: 11/25/2024, 1:39:12 PM

Final Composition

Final Composition

Knit To Knit



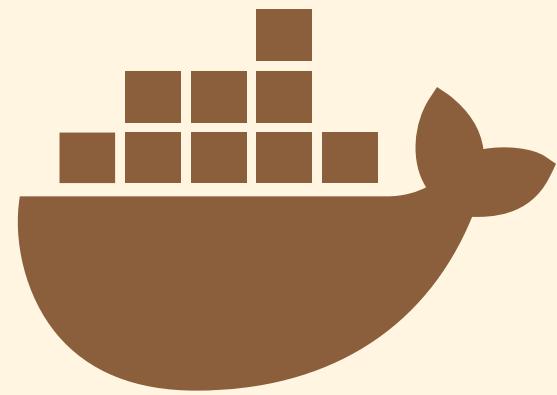
Technically all things used in the final product

...

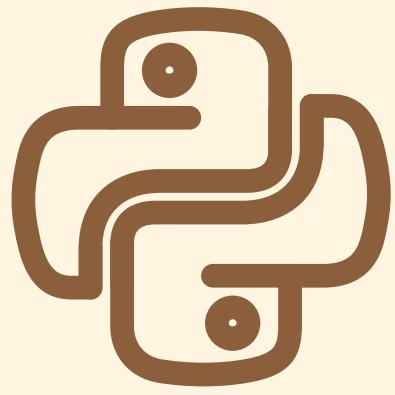
but lets simplify

Final Composition

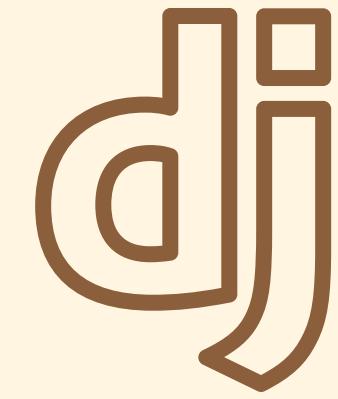
Knit To Knit



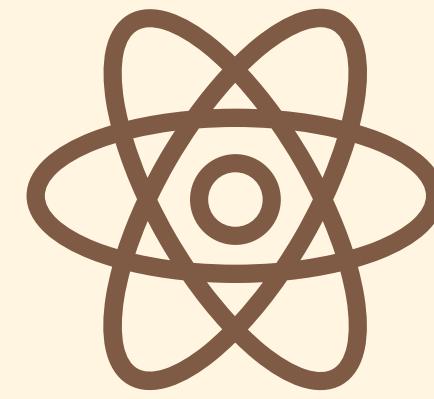
Docker



Python



Django



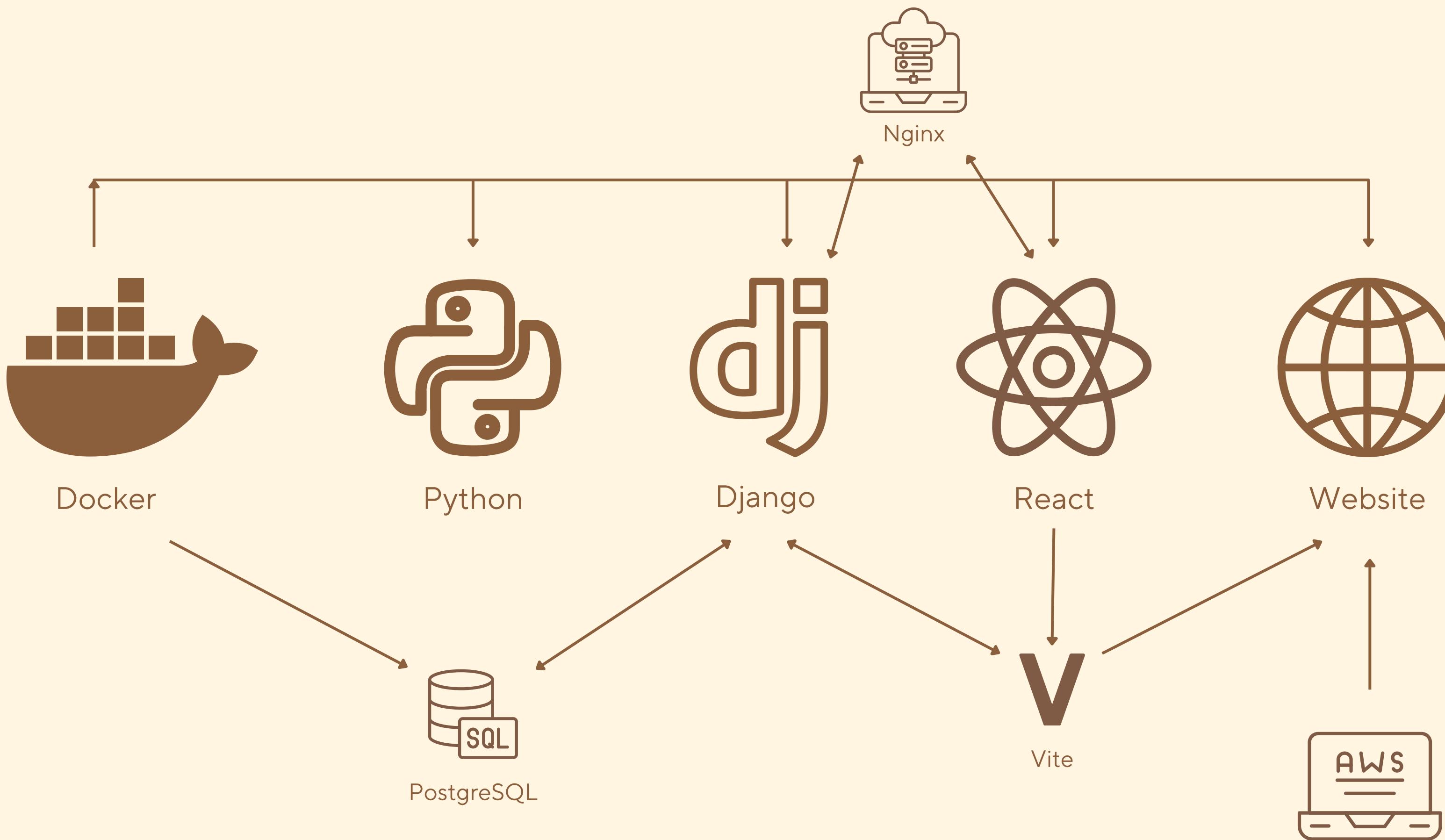
React



Website

Final Composition

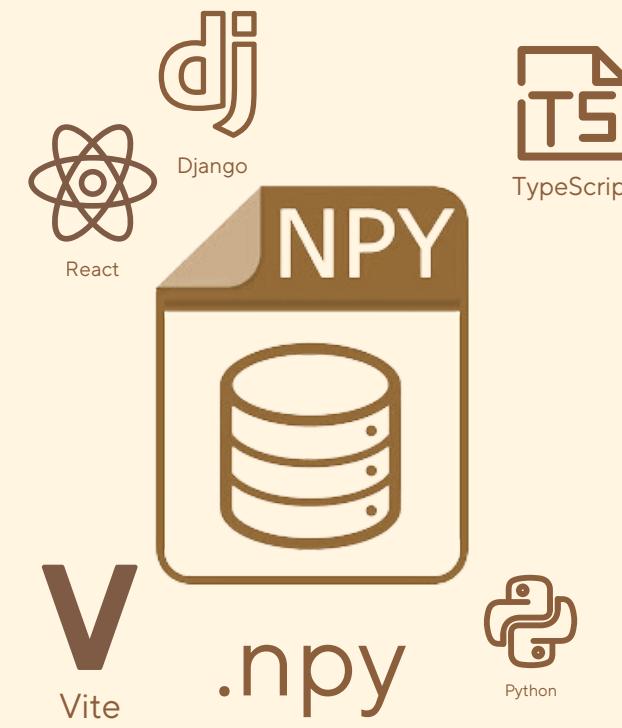
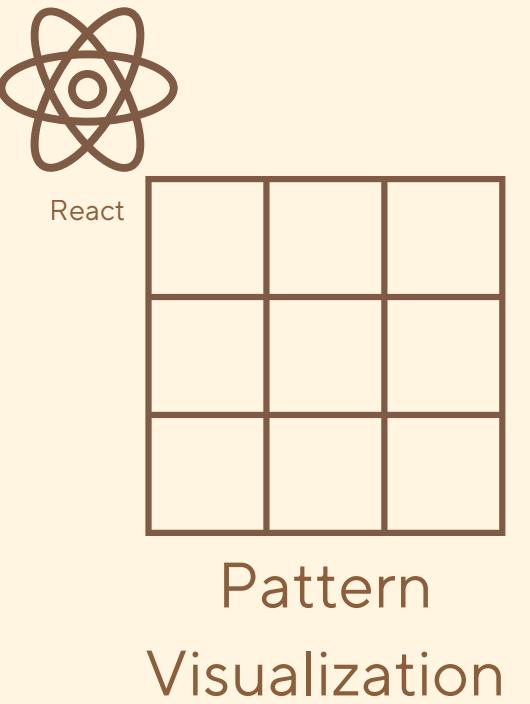
Knit To Knit



Key Challenges

Knit To Knit

Work on this slide



What Does Knit To Knit Provide?



Community

Building a platform to bring a community together.



Easy Pattern Resizing

Handles the complex math, to support the creativity of our users.



Income Producing Platform

Fee-based per-use platform.

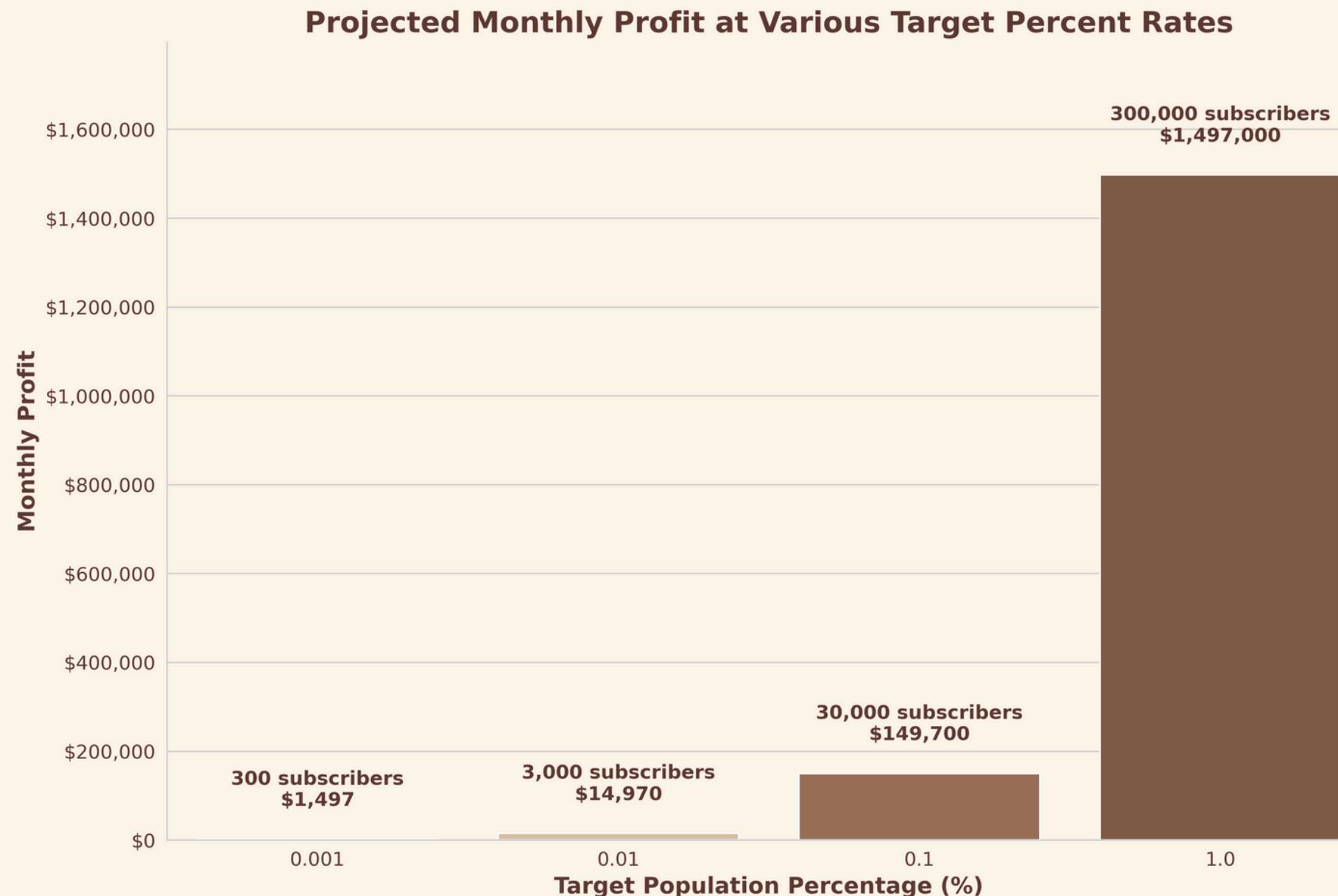


User Income Producing Platform

Provides an opportunity for users to profit off pattern sales to other users.

Short-Term Potential Revenue

Knit To Knit



Statistics

2020 - Forbes

- About 45 Million Americans know how to knit or crochet.
- A third of those buy knitting supplies at least once each month.

2016 - AFCI

- A global market worth of 2.79 billion.
- 28.8 million American knitters and crocheters.

Due to COVID-19, Knitting spiked in 2020, as a result those numbers may be a little off, but we have at a minimum about a market of Knitters and Crocheters of 30 million.

This means that we have around a target market of around 15 million Knitters.

If 1% of this market were to subscribe to our basic plan at \$4.99 a month, that is \$1,497,000 a month.

Potential Growth Points

Knit To Knit



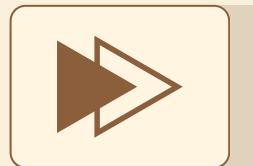
Online Supply Store

Offers a place to purchase supplies.



Multi-Language Support

To provide services globally.



Importing Patterns

Use Gen AI to read written patterns and present an estimation to the user.



Custom Pattern Types

To expand the capabilities of Knit To Knit and allow custom base templates to be created.



Knitting Home Kits

Provides easy packages for people who are starting to knit or for specific patterns.



Knitting Advertisements

Keep advertising only knitting related and only for free plan users.



Knitting Courses

Offers courses to teach beginners and increase retention rate of new clients.

Knit To Knit Demo

In the future,
What will the site be?

KnitToKnit.com

5 minute Q&A

Feel free to ask any questions you may have.
I'll do my best to answer them!

Thank You

Knit To Knit