



Week 8.4

Recap Everything, Build PayTM Frontend

In this lecture, Harkirat guides us through an [end-to-end tutorial](#) on building a comprehensive [full-stack application](#) resembling [Paytm](#). While there are no specific notes provided for this section, a mini guide is outlined below to assist you in navigating through each step of the tutorial. Therefore, it is strongly advised to actively follow along during the lecture for a hands-on learning experience.

It's important to note that this session primarily focuses on the frontend section of the application. For the backend portion, be sure to check out the content covered in the previous 8.2 lecture.

[Recap Everything, Build PayTM Frontend](#)

[Step 1 - Add routing to the react app](#)

[Solution](#)

[Step 2 - Create and hook up Signup page](#)

[Step 3 - Create the signin page](#)

[Step 4 - Dashboard page](#)

[Step 5 - Auth Components](#)

[1. Heading component](#)

[Code](#)

[2. Sub Heading component](#)

[Code](#)

[3. InputBox component](#)

[Code](#)

[4. Button Component](#)

[Code](#)

[5. BottomWarning](#)[Code](#)[Full Signup component](#)[Code](#)[Full Signin component](#)[Code](#)[Step 6 - Signin-ed Comonents](#)[1. Appbar](#)[Code](#)[2. Balance](#)[Code](#)[3. Users component](#)[Code](#)[4. SendMoney Component](#)[Code](#)[Step 7 - Wiring up the backend calls](#)

Step 1 - Add routing to the react app

Import `react-router-dom` into your project and add the following routes -

1. `/signup` - The signup page
2. `/signin` - The signin page
3. `/dashboard` - Balances and see other users on the platform.
4. `/send` - Send money to other users

▼ Solution

```
function App() {
  return (
    <>
      <BrowserRouter>
        <Routes>
          <Route path="/signup" element={<Signup />} />
          <Route path="/signin" element={<Signin />} />
          <Route path="/dashboard" element={<Dashboard />} />
          <Route path="/send" element={<SendMoney />} />
        </Routes>
      </BrowserRouter>
    </>
  )
}
```

Step 2 - Create and hook up Signup page

The screenshot shows a "Sign Up" form. The title "Sign Up" is at the top, followed by a subtitle "Enter your information to create an account". There are four input fields: "First Name" (with "John" typed in), "Last Name" (with "Doe" typed in), "Email" (with "johndoe@example.com" typed in), and "Password" (an empty field). Below the fields is a black "Sign Up" button. At the bottom of the form, there is a link "Already have an account? [Login](#)".

If the user signup is successful, take the user to [/dashboard](#)

If not, show them an error message

Step 3 - Create the signin page

The screenshot shows a "Sign In" form. The title "Sign In" is at the top, followed by a subtitle "Enter your credentials to access your account". There are two input fields: "Email" (with "johndoe@example.com" typed in) and "Password" (an empty field). Below the fields is a black "Sign In" button. At the bottom of the form, there is a link "Don't have an account? [Sign Up](#)".

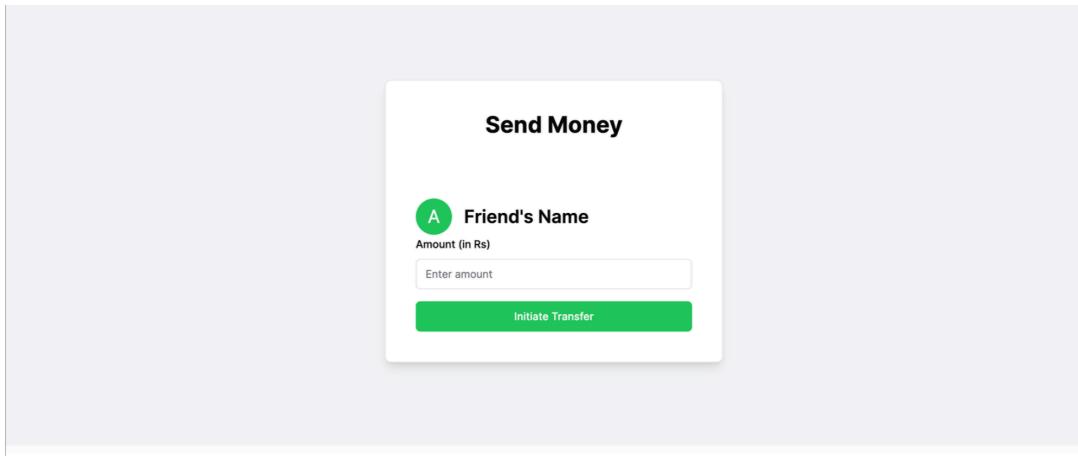
If the signin is successful, take the user to [/dashboard](#)

Step 4 - Dashboard page

The screenshot shows a "Payments App" interface. At the top, it displays "Your Balance \$5000". Below that is a section titled "Users" with a search bar containing "Search users...". A list of three users is shown: "User 1", "User 2", and "User 3", each with a "Send Money" button to its right.

Show the user their balance, and a list of users that exist in the database

Clicking on `Send money` should open a modal that lets the user send money

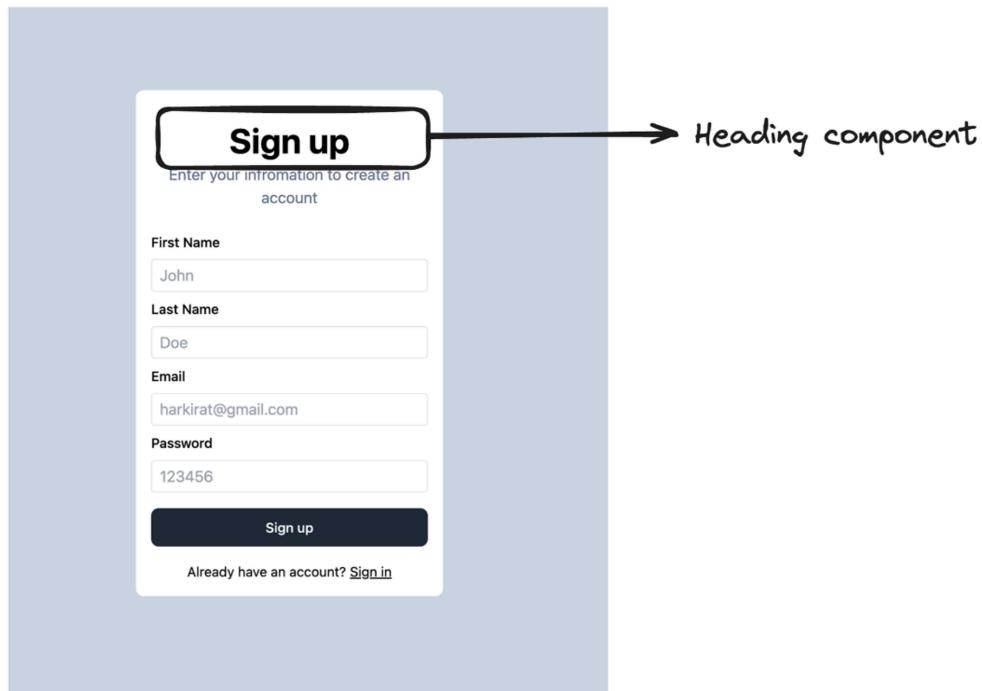


Step 5 - Auth Components

Full Signup component

You can break down the app into a bunch of components. The code only contains the styles of the component, not any onclick functionality.

1. Heading component



▼ Code

```
export function Heading({label}) {
  return <div className="font-bold text-4xl pt-6">
    {label}
  </div>
}
```

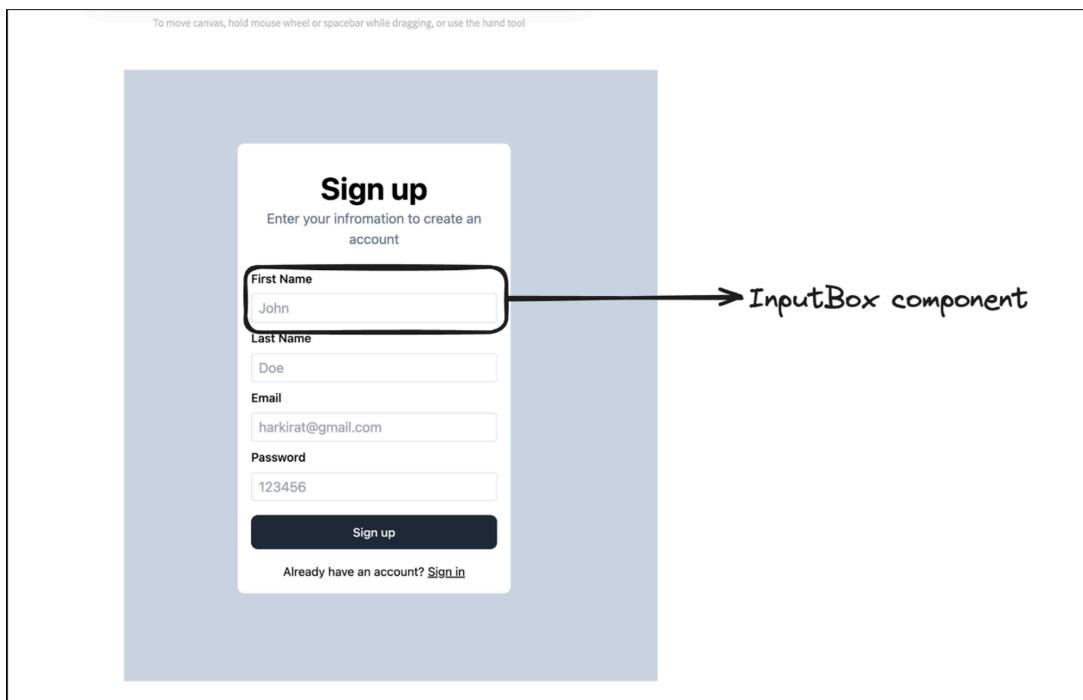
2. Sub Heading component



▼ Code

```
export function SubHeading({label}) {
  return <div className="text-slate-500 text-md pt-1 px-4 pb-4">
    {label}
  </div>
}
```

3. InputBox component

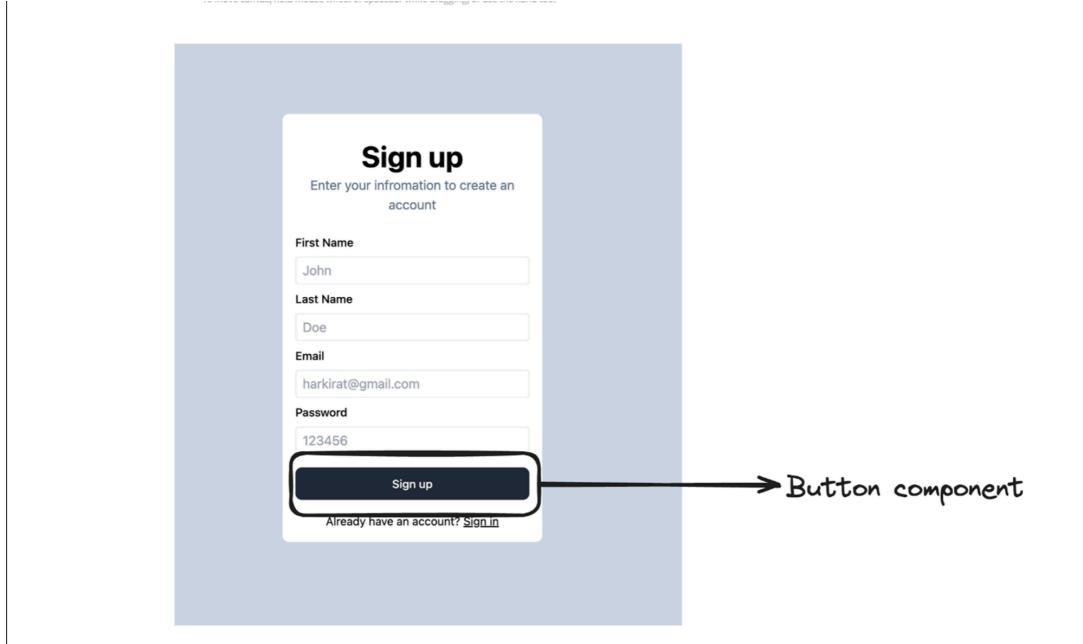


▼ Code

```
export function InputBox({label, placeholder}) {
  return <div>
    <div className="text-sm font-medium text-left py-2">
      {label}
    </div>
    <input placeholder={placeholder} className="w-full px-2 py-1 border rounded border-slate-300 focus:outline-none focus:ring focus:ring-slate-500 focus:ring-2" type="text" />
  </div>
}
```



4. Button Component



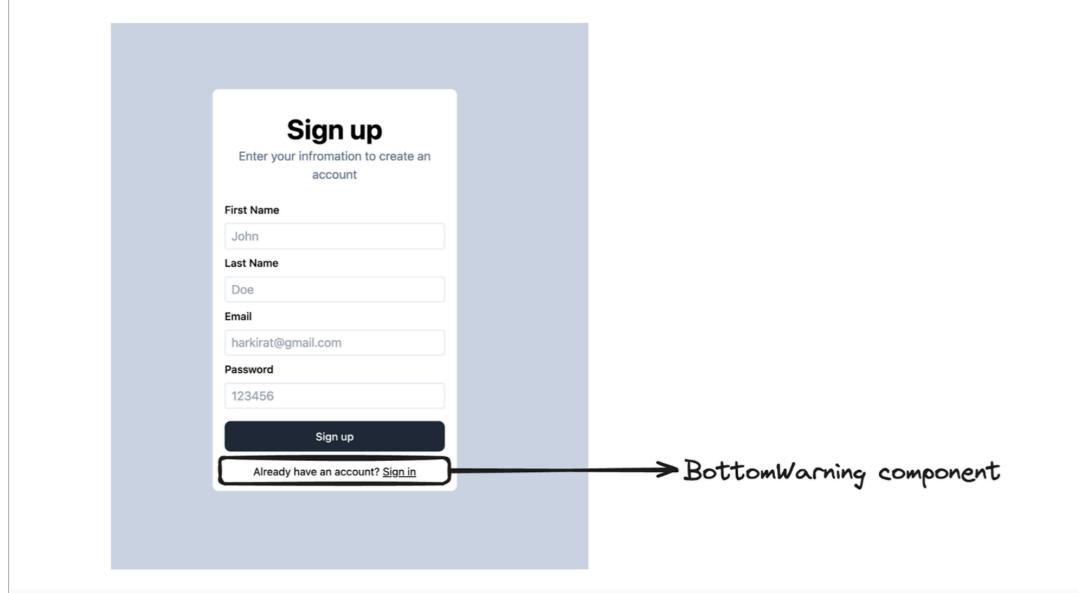
▼ Code

```
export function Button({label, onClick}) {
  return <button onClick={onClick} type="button" className="w-full text-white bg-gray-800 hover:bg-gray-700 py-2 px-4 rounded border border-transparent">{label}</button>
}
```



This section was blindly copied from <https://flowbite.com/docs/components/buttons/>

5. BottomWarning

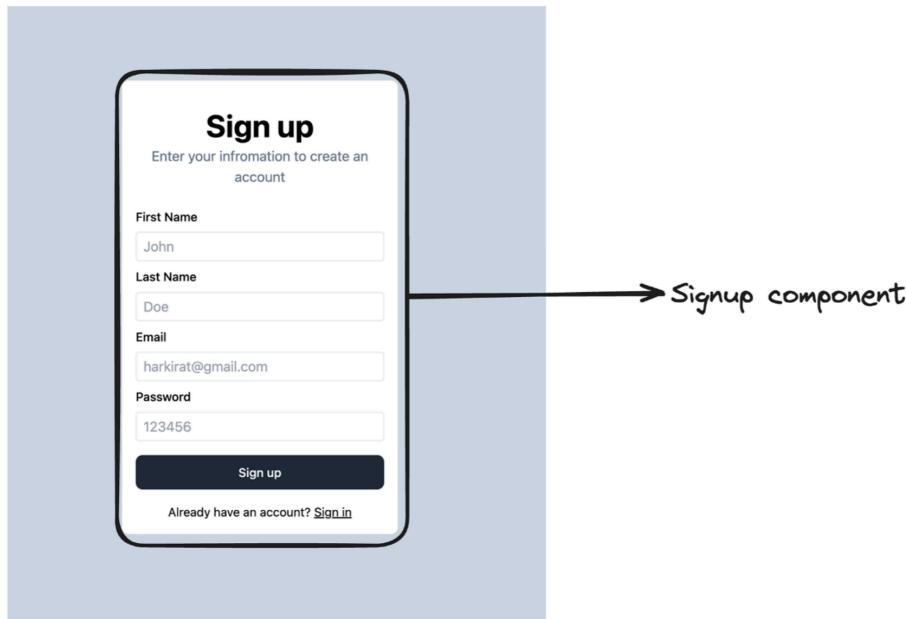


▼ Code

```
import { Link } from "react-router-dom"

export function BottomWarning({label, buttonText, to}) {
    return <div className="py-2 text-sm flex justify-center">
        <div>
            {label}
            </div>
            <Link className="pointer underline pl-1 cursor-pointer" to={to}>
                {buttonText}
            </Link>
        </div>
    }
}
```

Full Signup component



▼ Code

```

import { BottomWarning } from "../components/BottomWarning"
import { Button } from "../components/Button"
import { Heading } from "../components/Heading"
import { InputBox } from "../components/InputBox"
import { SubHeading } from "../components/SubHeading"

export const Signup = () => {
  return <div className="bg-slate-300 h-screen flex justify-center">
    <div className="flex flex-col justify-center">
      <div className="rounded-lg bg-white w-80 text-center p-2 h-max px-4">
        <Heading label="Sign up" />
        <SubHeading label="Enter your information to create an account" />
        <InputBox placeholder="John" label="First Name" />
        <InputBox placeholder="Doe" label="Last Name" />
        <InputBox placeholder="harkirat@gmail.com" label="Email" />
        <InputBox placeholder="123456" label="Password" />
        <div className="pt-4">
          <Button label="Sign up" />
        </div>
        <BottomWarning label="Already have an account?" buttonText="Sign in" to="/signin" />
      </div>
    </div>
  </div>
}

```

Full Signin component

▼ Code

```

import { BottomWarning } from "../components/BottomWarning"
import { Button } from "../components/Button"

```

```

import { Heading } from "../components/Heading"
import { InputBox } from "../components/InputBox"
import { SubHeading } from "../components/SubHeading"

export const Signin = () => {

  return <div className="bg-slate-300 h-screen flex justify-center">
    <div className="flex flex-col justify-center">
      <div className="rounded-lg bg-white w-80 text-center p-2 h-max px-4">
        <Heading label={"Sign in"} />
        <SubHeading label={"Enter your credentials to access your account"} />
        <InputBox placeholder="harkirat@gmail.com" label={"Email"} />
        <InputBox placeholder="123456" label={"Password"} />
        <div className="pt-4">
          <Button label={"Sign in"} />
        </div>
        <BottomWarning label={"Don't have an account?"} buttonText={"Sign up"} to={"/signup"} />
      </div>
    </div>
  </div>
}

```



Step 6 - Signin-ed Comonents

1. Appbar



▼ Code

```

export const AppBar = () => {
  return <div className="shadow h-14 flex justify-between">
    <div className="flex flex-col justify-center h-full ml-4">
      PayTM App
    </div>
    <div className="flex">
      <div className="flex flex-col justify-center h-full mr-4">
        Hello
      </div>
      <div className="rounded-full h-12 w-12 bg-slate-200 flex justify-center mt-1 mr-2">
        <div className="flex flex-col justify-center h-full text-xl">

```

```

    U
  </div>
</div>
</div>
</div>
}

```

2. Balance



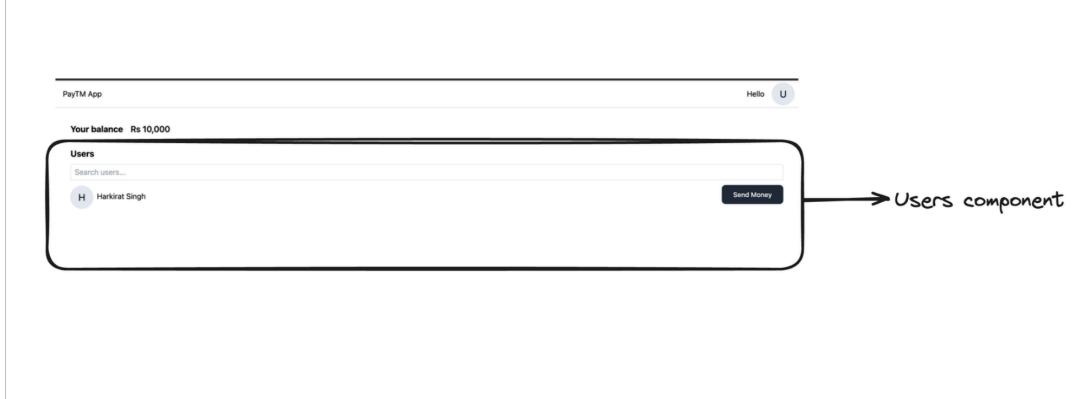
▼ Code

```

export const Balance = ({ value }) => {
  return <div className="flex">
    <div className="font-bold text-lg">
      Your balance
    </div>
    <div className="font-semibold ml-4 text-lg">
      Rs {value}
    </div>
  </div>
}

```

3. Users component



▼ Code

```

import { useState } from "react"
import { Button } from "./Button"

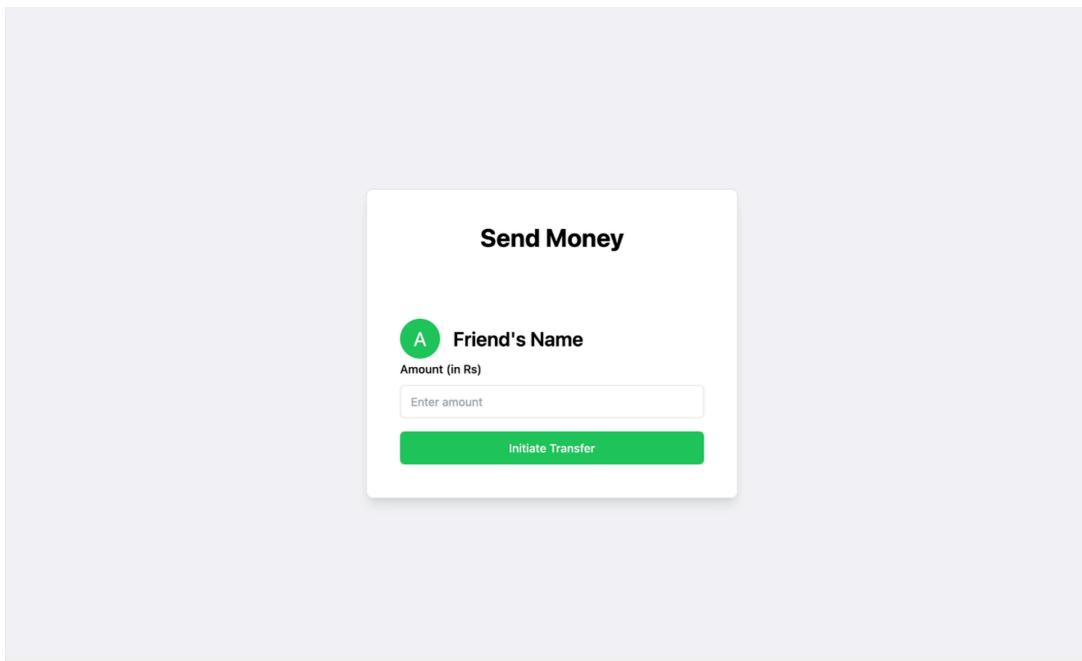
export const Users = () => {
    // Replace with backend call
    const [users, setUsers] = useState([
        {
            firstName: "Harkirat",
            lastName: "Singh",
            _id: 1
        }
    ]);

    return <>
        <div className="font-bold mt-6 text-lg">
            Users
        </div>
        <div className="my-2">
            <input type="text" placeholder="Search users..." className="w-full px-2 py-1 border">
        </div>
        <div>
            {users.map(user => <User user={user} />)}
        </div>
    </>
}

function User({user}) {
    return <div className="flex justify-between">
        <div className="flex">
            <div className="rounded-full h-12 w-12 bg-slate-200 flex justify-center mt-1 mr-2">
                <div className="flex flex-col justify-center h-full text-xl">
                    {user.firstName[0]}
                </div>
            </div>
            <div className="flex flex-col justify-center h-full">
                <div>
                    {user.firstName} {user.lastName}
                </div>
            </div>
        </div>
        <div className="flex flex-col justify-center h-full">
            <Button label={"Send Money"} />
        </div>
    </div>
}

```

4. SendMoney Component



▼ Code

```
export const SendMoney = () => {
  return <div class="flex justify-center h-screen bg-gray-100">
    <div className="h-full flex flex-col justify-center">
      <div
        class="border h-min text-card-foreground max-w-md p-4 space-y-8 w-96 bg-white">
        <div class="flex flex-col space-y-1.5 p-6">
          <h2 class="text-3xl font-bold text-center">Send Money</h2>
        </div>
        <div class="p-6">
          <div class="flex items-center space-x-4">
            <div class="w-12 h-12 rounded-full bg-green-500 flex items-center justify-center text-white">A</div>
            <span class="text-2xl text-white">A</span>
          </div>
          <h3 class="text-2xl font-semibold">Friend's Name</h3>
        </div>
        <div class="space-y-4">
          <div class="space-y-2">
            <label
              class="text-sm font-medium leading-none peer-disabled:cursor-not-allowed"
              htmlFor="amount"
            >
              Amount (in Rs)
            </label>
            <input
              type="number"
              class="flex h-10 w-full rounded-md border border-input bg-background peer"
              id="amount"
              placeholder="Enter amount"
            />
          </div>
          <button class="justify-center rounded-md text-sm font-medium ring-offset-2 ring-[#00A399] px-4 py-2.5 text-white">
            Initiate Transfer
          </button>
        </div>
      </div>
    </div>
  </div>
```

```
</div>
</div>
}
```

Step 7 - Wiring up the backend calls

You can use

1. fetch or
2. axios

to wire up calls to the backend server.

The final code looks something like this -

<https://github.com/100xdevs-cohort-2/paytm/tree/complete-solution> (complete-solution branch on the repo)

The important bits here are -

1. Signup call - <https://github.com/100xdevs-cohort-2/paytm/blob/complete-solution/frontend/src/pages/Signup.jsx#L36>
2. Call to get all the users given the filter - <https://github.com/100xdevs-cohort-2/paytm/blob/complete-solution/frontend/src/components/Users.jsx#L13>
3. Call to transfer money b/w accounts - <https://github.com/100xdevs-cohort-2/paytm/blob/complete-solution/frontend/src/pages/SendMoney.jsx#L45>

