

- Explanation of code and Screenshots

1. HTML Explanation (Structure)

HTML defines the **structure and elements** of the signup form.

Document Setup

```
<!DOCTYPE html>
<html lang="en">
  • Declares HTML5 document
  • Sets language to English
<meta charset="UTF-8">
<title>Signup Page</title>
<link rel="stylesheet" href="style.css">
  • UTF-8 supports all characters
  • External CSS file linked
```

Main Card Container

```
<div class="signup-card">
  • Acts as the central card holding the form
  • Styled using CSS (shadow, rounded corners)
```

Form Element

```
<form onsubmit="return validateForm()">
  • Calls validateForm() on submit
  • Prevents page reload if validation fails
```

First Name & Last Name

```
<input type="text" id="fname">
<input type="text" id="lname">
  • Two inputs displayed side-by-side
  • Each has an associated error <div> for validation messages
```

Phone Number & Email

```
<input type="text" id="phone">
<input type="email" id="email">
  • Phone validated for 10 digits
  • Email validated using regex
```

Password Field

```
<input type="password" id="password" onkeyup="checkStrength()">
  • Password hidden by default
  • Strength checked while typing
<span class="toggle" onclick="togglePassword('password')"></span>
  • Toggles password visibility
```

Confirm Password

- Ensures user re-enters the same password
- Shows error if passwords do not match

User Type Dropdown

```
<select id="userType">
```

- User must select Student or Admin
- Cannot be left empty

Submit Button & Messages

```
<button type="submit">Register</button>
```

```
<div class="success" id="successMsg"></div>
```

- Displays success message after successful validation

2. CSS Explanation (Styling & Layout)

CSS controls **appearance, colors, spacing, and responsiveness.**

Global Styling

```
* {  
    box-sizing: border-box;  
    font-family: "Segoe UI", Arial, sans-serif;  
}  
  
    • Ensures consistent sizing  
    • Sets default font
```

Body Styling

```
background: linear-gradient(135deg, #87cefa, #1e3c72);
```

- Light sky blue to dark blue gradient
- Centers the signup card vertically and horizontally

Signup Card

```
.signup-card {  
    width: 450px;  
    border-radius: 15px;  
    box-shadow: 0 15px 40px rgba(0,0,0,0.35);  
}  
  
    • White card with rounded corners  
    • Shadow gives modern UI look
```

Form Layout

```
.form-row {  
    display: flex;  
    gap: 15px;  
}  
  
    • Displays two fields in one row (First–Last, Phone–Email)
```

Input Styling

```
input:focus {  
    border-color: #1e3c72;  
    box-shadow: 0 0 6px rgba(30,60,114,0.4);  
}
```

- Highlights input when focused

Password Toggle

```
.toggle {  
    position: absolute;  
    right: 10px;  
    cursor: pointer;  
}
```

- Positioned inside password field

Button Styling

```
button {  
    background: linear-gradient(135deg, #87cefa, #1e3c72);  
}  
• Gradient button  
• Hover effect for better UX
```

Messages

```
.error {  
    color: red;  
}  
.success {  
    color: #1e3c72;  
}  
• Red for errors  
• Blue for success message
```

Responsive Design

```
@media (max-width: 500px)  
    • Converts two-column layout into single-column on mobile
```

3. JavaScript Explanation (Validation & Logic)

JavaScript handles **form validation, password strength, and interactivity**.

validateForm() Function

- Fetches input values using getElementById
- Removes old error messages
- Uses isValid flag to track validation status

Name Validation

```
if (fname === "")
```

- First and last names cannot be empty

Email Validation

/^[\^s@]+@[^\s@]+\.[^\s@]+\$/

- Ensures valid email format

Phone Validation

/^\d{10}\$/

- Phone number must be exactly 10 digits

Password Validation

/^(?=.*[A-Z])(?=.*[@\$!%*?&]).{8,}\$/

Password must contain:

- Minimum 8 characters
- At least 1 uppercase letter
- At least 1 special symbol

Confirm Password Check

if (password !== confirmPassword)

- Prevents mismatched passwords

User Type Validation

if (userType === "")

- Forces user to select a role

Success Message

"Registration Successful! "

- Displayed only when all validations pass

Show / Hide Password

input.type = input.type === "password" ? "text" : "password";

- Toggles password visibility

Password Strength Meter

Strong: Uppercase + Symbol + Number

Medium: Uppercase + Symbol

Weak: Otherwise

- Shows real-time feedback with colors:
 - Green → Strong
 - Orange → Medium
 - Red → Weak

- Screenshots

The screenshot shows a registration form titled "Signup / Registration". The form consists of several input fields with validation messages:

- First Name***: An empty input field with the validation message "First name is required" below it.
- Last Name***: An empty input field with the validation message "Last name is required" below it.
- Phone Number***: An empty input field with the validation message "Phone number is required" below it.
- Email***: An empty input field with the validation message "Email is required" below it.
- Password***: An empty input field with the validation message "Password is required" below it.
- Confirm Password***: An empty input field with the validation message "Confirm your password" below it.
- User Type***: A dropdown menu with the placeholder "Please select user type" and a small dropdown arrow icon.