

- 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

```
/^[0-9]{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

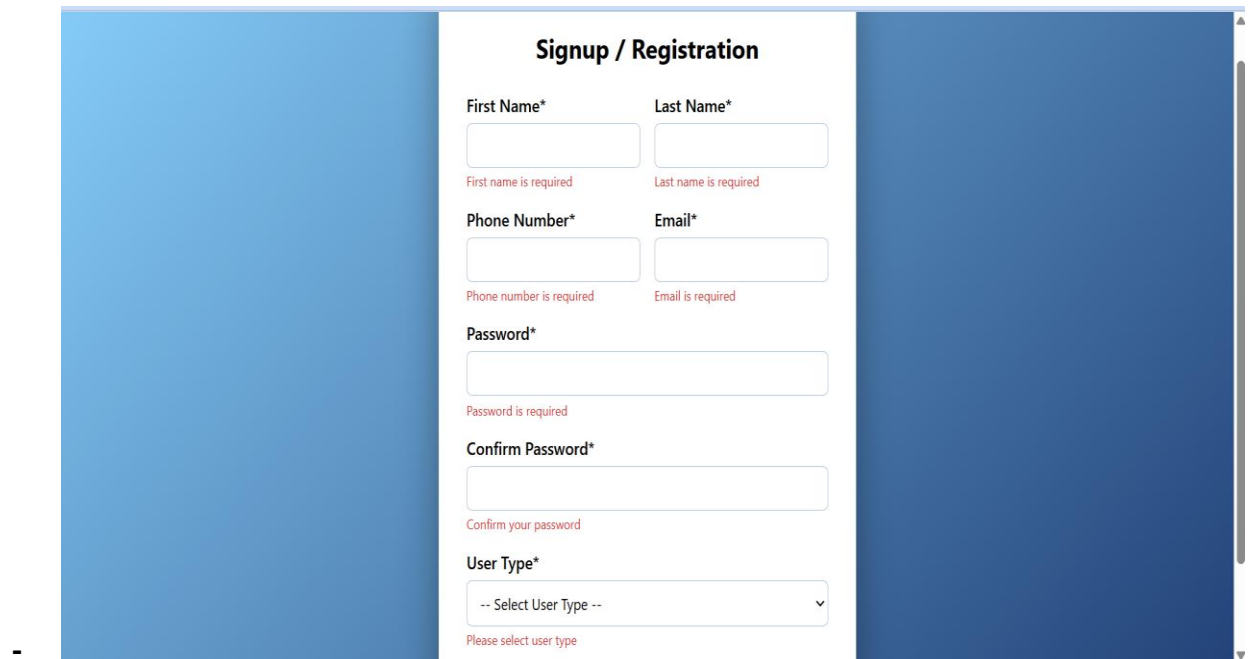
Strong: Uppercase + Symbol + Number

Medium: Uppercase + Symbol

Weak: Otherwise

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

- Screenshots



The screenshot shows a web browser window with a 'Signup / Registration' form. The form is centered and has a white background. It is flanked by two vertical blue bars. The form contains several input fields with red error messages below them. The fields are: First Name*, Last Name*, Phone Number*, Email*, Password*, Confirm Password*, and User Type*. The User Type field is a dropdown menu. The error messages are: 'First name is required', 'Last name is required', 'Phone number is required', 'Email is required', 'Password is required', 'Confirm your password', and 'Please select user type'.

Signup / Registration

First Name*

First name is required

Last Name*

Last name is required

Phone Number*

Phone number is required

Email*

Email is required

Password*

Password is required

Confirm Password*

Confirm your password

User Type*

Please select user type