**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

**<meta name="viewport" content="width=device-width, initial-scale=1.0">**

**<title>Password Strength Checker</title>**

**</head>**

**<body>**

**<!-- Password Strength Checker -->**

**<form id="passwordForm">**

**<input id="pass" type="text" placeholder="Enter password" required>**

**<button type="submit">Submit</button>**

**</form>**

**<p id="strengthMessage"></p>**

**<script>**

**let passW = document.getElementById('pass');**

**let form = document.getElementById('passwordForm');**

**let strengthMessage = document.getElementById('strengthMessage');**

**// Add an event listener to the form**

**form.addEventListener('submit', function(e) {**

**e.preventDefault(); // Prevent default form submission**

**const password = passW.value.trim();**

**let strength = "";**

**if (password.length >= 8 && /\d/.test(password) && /[A-Z]/.test(password)) {**

**strength = "Strong";**

**} else if (password.length >= 5) {**

**strength = "Medium";**

**} else {**

**strength = "Weak";**

**}**

**// Display the password strength message**

**strengthMessage.textContent = `Password Strength: ${strength}`;**

**strengthMessage.style.color = strength === "Strong" ? "green" : (strength === "Medium" ? "orange" : "red");**

**});**

**</script>**

**</body>**

**</html>**

**Q:**

**/\d/.test(password) && /[A-Z]/.test(password))** what is this

Great question! Let me break it down for you:

1. /\d/.test(password):
   * This is a regular expression (regex) that checks if the password contains at least one digit.
   * /\d/: The \d is a shorthand for "any digit" (0–9). Wrapping it in / / creates a regex pattern.
   * .test(password): The .test() method is used to evaluate whether the password matches the pattern /\d/. It returns true if the pattern is found and false otherwise.
2. /[A-Z]/.test(password):
   * This is another regex pattern that checks if the password contains at least one uppercase letter.
   * /[A-Z]/: The [A-Z] specifies "any uppercase letter" from A to Z.
   * .test(password): As above, it checks if the password matches this pattern.
3. &&:
   * This is the logical AND operator. It ensures that both conditions must be true:
     + The password must contain at least one digit (\d).
     + The password must contain at least one uppercase letter ([A-Z]).

So, putting it all together:

* /\d/.test(password) && /[A-Z]/.test(password) checks if the password contains both **a digit** and **an uppercase letter**. If both are present, the condition evaluates to true.