

Task - 6 : : Create a Strong Password and Evaluate Its Strength.

Test Your Password	
Password:	<input type="text" value="abc"/>
Hide:	<input type="checkbox"/>
Score:	<div>2%</div>
Complexity:	Very Weak

Test Your Password	
Password:	<input type="text" value="Abc_a"/>
Hide:	<input type="checkbox"/>
Score:	<div>22%</div>
Complexity:	Weak

Test Your Password	
Password:	<input type="text" value="Abc"/>
Hide:	<input type="checkbox"/>
Score:	<div>10%</div>
Complexity:	Very Weak

Test Your Password	
Password:	<input type="text" value="Abc_a1"/>
Hide:	<input type="checkbox"/>
Score:	<div>39%</div>
Complexity:	Weak

Test Your Password	
Password:	<input type="text" value="Abc_a1@"/>
Hide:	<input type="checkbox"/>
Score:	<div>55%</div>
Complexity:	Good

Test Your Password	
Password:	<input type="text" value="Abc_a1@_"/>
Hide:	<input type="checkbox"/>
Score:	<div>74%</div>
Complexity:	Strong

Test Your Password	
Password:	<input type="text" value="Abc_a1@_W"/>
Hide:	<input type="checkbox"/>
Score:	80%
Complexity:	Very Strong

=> Key Observations

1. Longer passwords with mixed character types (uppercase, lowercase, numbers, symbols) received higher strength scores.
2. Common patterns like **password123** or simple numeric sequences (**123456**) are flagged as weak.
3. Adding special characters and avoiding dictionary words drastically improves security.

=> Tips for Creating Strong Passwords

- Use at least 12 characters.
 - Combine uppercase, lowercase, numbers, and symbols.
 - Avoid dictionary words, names, or patterns (e.g., **qwerty**, **abc123**).
 - Don't reuse passwords across multiple sites.
 - Consider using a passphrase (e.g., **Sun!Horse2Swim^Night**).
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=> Common Password Attacks (Brief Summary)

- **Brute Force Attack:** Tries every possible combination; longer/more complex passwords take more time to crack.
 - **Dictionary Attack:** Uses common passwords and dictionary words; easily defeats weak or common passwords.
 - **Credential Stuffing:** Reuses passwords leaked from other sites; emphasizes the need for unique passwords.
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=> Conclusion

Password strength is critical to online security. By using a combination of length, complexity, and uniqueness, we can defend against most common attacks. Testing with tools like Password Meter or NordPass helps validate password strength and reinforce best practices.