

```
import React, { useState } from 'react';
```

```
interface PasswordStrength {
```

```
  length: boolean;
```

```
  uppercase: boolean;
```

```
  lowercase: boolean;
```

```
  number: boolean;
```

```
  specialChar: boolean;
```

```
}
```

```
const PasswordStrengthChecker = () => {
```

```
const [password, setPassword] = useState("");
```

```
const [passwordStrength, setPasswordStrength] = useState<PasswordStrength>({
```

```
  length: false,
```

```
  uppercase: false,
```

```
  lowercase: false,
```

```
  number: false,
```

```
  specialChar: false,
```

```
});
```

```
const checkPasswordStrength = (password: string) => {
```

```
  const strength: PasswordStrength = {
```

```
length: password.length >= 8,
```

```
uppercase: /[A-Z]/.test(password),
```

```
lowercase: /[a-z]/.test(password),
```

```
number: /\d/.test(password),
```

```
specialChar: /^[^A-Za-z0-9]/.test(password),
```

```
};
```

```
setPasswordStrength(strength);
```

```
};
```

```
const handlePasswordChange = (e: React.ChangeEvent<HTMLInputElement>) => {
```

```
  const password = e.target.value;
```

```
setPassword(password);
```

```
checkPasswordStrength(password);
```

```
};
```

```
const getStrengthColor = () => {
```

```
  const { length, uppercase, lowercase, number, specialChar } = passwordStrength;
```

```
  if (length && uppercase && lowercase && number && specialChar) {
```

```
    return 'text-green-500';
```

```
  } else if (length && (uppercase || lowercase) && (number || specialChar)) {
```

```
    return 'text-yellow-500';
```

```
  } else {
```

```
return 'text-red-500';
```

```
}
```

```
};
```

```
return (
```

```
<div className="max-w-md mx-auto p-4 mt-10 bg-white rounded-lg shadow-md">
```

```
<h2 className="text-lg font-bold mb-4">Password Strength Checker</h2>
```

```
<input
```

```
type="password"
```

```
value={password}
```

```
onChange={handlePasswordChange}
```

```
className="w-full p-2 mb-4 border border-gray-300 rounded-lg focus:outline-none focus:ring focus:ring-blue-500"
```

```
placeholder="Enter your password"
```

```
/>
```

```
<div className="mb-4">
```

```
<p className="text-sm font-bold">Password Strength:</p>
```

```
<ul>
```

```
<li className={`text-sm ${passwordStrength.length ? 'text-green-500' : 'text-red-500'}`}>
```

```
  Length: {passwordStrength.length ? 'Strong' : 'Weak'}
```

```
</li>
```

```
<li className={`text-sm ${passwordStrength.uppercase ? 'text-green-500' : 'text-red-500'}`}>
```

```
  Uppercase: {passwordStrength.uppercase ? 'Present' : 'Absent'}
```


<li className={`text-sm \${passwordStrength.lowercase ? 'text-green-500' : 'text-red-500'}`}>

Lowercase: {passwordStrength.lowercase ? 'Present' : 'Absent'}

<li className={`text-sm \${passwordStrength.number ? 'text-green-500' : 'text-red-500'}`}>

Number: {passwordStrength.number ? 'Present' : 'Absent'}

<li className={`text-sm \${passwordStrength.specialChar ? 'text-green-500' : 'text-red-500'}`}>

Special Character: {passwordStrength.specialChar ? 'Present' : 'Absent'}


```
</div>
```

```
<p className={`text-lg font-bold ${getStrengthColor()}`}>
```

```
  Overall Strength: {getStrengthColor() === 'text-green-500' ? 'Strong' : getStrengthColor() === 'text-yellow-500' ? 'Medium' : 'Weak'}
```

```
</p>
```

```
</div>
```

```
);
```

```
};
```

```
export default PasswordStrengthChecker;
```