

Lab 5 — Developing Web Application using Django- Part I Homework

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Captcha Matching Page

Description: Reproduce a captcha, validate match, and disable the textbox after 3 mismatches.

Code (View):

```
from django.shortcuts import render

def index(request):
    return render(request, 'a1_captcha.html')
```

Code (URL config):

```
from django.urls import path
from . import views

urlpatterns = [
    path('', views.index, name='index'),
]
```

Code (Template):

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Captcha Validation</title>
    <style>
        body {
            font-family: Arial, sans-serif;
            background: #f5f7fb;
            margin: 0;
            padding: 24px;
        }
    </style>

```

```
.card {  
    max-width: 520px;  
    margin: 0 auto;  
    background: #ffffff;  
    border-radius: 12px;  
    padding: 24px;  
    box-shadow: 0 8px 24px rgba(0, 0, 0, 0.08);  
}  
.captcha-box {  
    display: flex;  
    align-items: center;  
    gap: 12px;  
    margin: 16px 0;  
}  
#captchaText {  
    font-family: "Courier New", monospace;  
    font-size: 22px;  
    letter-spacing: 3px;  
    padding: 8px 12px;  
    background: #eef2ff;  
    border: 1px dashed #8aa0ff;  
    border-radius: 8px;  
    user-select: none;  
}  
input {  
    width: 100%;  
    padding: 10px 12px;  
    border: 1px solid #d7dbe7;  
    border-radius: 8px;  
    font-size: 14px;  
    box-sizing: border-box;  
}  
button {  
    margin-top: 12px;  
    background: #3a6cf4;  
    color: #fff;  
    border: 0;  
    padding: 10px 16px;  
    border-radius: 8px;  
    font-weight: 600;  
    cursor: pointer;  
}  
.message {  
    margin-top: 12px;  
    font-weight: 700;  
}  
.error {  
    color: #c62828;  
}  
.success {  
    color: #2e7d32;  
}  
/
```

```
<body>
  <div class="card">
    <h1>Captcha Validation</h1>
    <p>Type the captcha shown below. After 3 mismatches, the textbox will be disabled.</p>

    <div class="captcha-box">
      <div id="captchaText">AB12C</div>
      <button type="button" id="refreshBtn">Refresh</button>
    </div>

    <label for="captchaInput">Enter Captcha</label>
    <input id="captchaInput" type="text" autocomplete="off" />

    <button type="button" id="checkBtn">Check</button>
    <div class="message" id="message">&nbsp;</div>
  </div>

<script>
  const captchaText = document.getElementById('captchaText');
  const captchaInput = document.getElementById('captchaInput');
  const message = document.getElementById('message');
  const refreshBtn = document.getElementById('refreshBtn');
  const checkBtn = document.getElementById('checkBtn');

  let attempts = 0;

  function generateCaptcha() {
    const chars = 'ABCDEFGHIJKLMNOPQRSTUVWXYZ23456789';
    let result = '';
    for (let i = 0; i < 5; i++) {
      result += chars.charAt(Math.floor(Math.random() * chars.length));
    }
    captchaText.textContent = result;
  }

  function setMessage(text, isSuccess) {
    message.textContent = text;
    message.className = `message ${isSuccess ? 'success' : 'error'}`;
  }

  refreshBtn.addEventListener('click', () => {
    generateCaptcha();
    setMessage('', false);
    captchaInput.value = '';
  });

  checkBtn.addEventListener('click', () => {
    const entered = captchaInput.value.trim();
    const actual = captchaText.textContent.trim();

    if (!entered) {
      setMessage('Please enter the captcha.', false);
      return;
    }
  });
</script>
```

```
}

if (entered === actual) {
    setMessage('Captcha matched.', true);
    attempts = 0;
    captchaInput.value = '';
    generateCaptcha();
    return;
}

attempts += 1;
if (attempts >= 3) {
    captchaInput.disabled = true;
    setMessage('Captcha mismatched 3 times. Input disabled.', false);
    return;
}

setMessage(`Captcha mismatch. Attempts left: ${3 - attempts}`, false);
});

generateCaptcha();
</script>
</body>
</html>
```

Output:

The screenshot shows a web page titled "Captcha Validation". The page instructs the user to type the captcha shown below. It features a button labeled "7 K N E D" with a dashed border, a "Refresh" button, and an "Enter Captcha" input field. Below the input field is a "Check" button. The message "Captcha matched." is displayed in green text at the bottom.

Captcha Validation

Type the captcha shown below. After 3 mismatches, the textbox will be disabled.

7 K N E D Refresh

Enter Captcha

Check

Captcha matched.