

# 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;
        }
```

```
.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;
}

</style>
</head>
```

```
<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 = 'ABCDEFGHJKLMNPQRSTUVWXYZ23456789';
      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>
</body>
```

```
    }

    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:

### 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.