

# WEB PROGRAMMING LAB-5

## HOME EXERCISES

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### Creating the python environment & installing Django

```
cd ~/Desktop/230905010_DevadathanNR/05_LAB
python3 -m venv djangoenv
source djangoenv/bin/activate
(djangoenv) > python3 -m pip install django
```

### Additional Question 1

Develop a simple web page to reproduce the given Captcha. Upon match, suitable message has to be displayed. If there is a mismatch for more than 3 times, TextBox has to be disabled.

### Create project & App

```
# Create Django project
django-admin startproject CaptchaApp
cd CaptchaApp

# Create app
python manage.py startapp formapp
```

## CaptchaApp/settings.py

```
import os # added at the top

INSTALLED_APPS = [
    'formapp', # added this line
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
]

TEMPLATES = [
{
    'BACKEND': 'django.template.backends.django.DjangoTemplates',
    'DIRS': [os.path.join(BASE_DIR, 'formapp/template')],
    # added this
    'APP_DIRS': True,
},
]
```

## Project URLs: CaptchaApp/urls.py

```
from django.contrib import admin
from django.urls import path, include

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('formapp.urls')),
]
```

## App URLs: `formapp/urls.py`

```
# Created urls.py inside formapp

from django.urls import path
from . import views

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

## View: `formapp/views.py`

```
from django.shortcuts import render

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

## `captcha.html`

```
# Create templates folder & html file
mkdir formapp/templates
touch formapp/templates/captcha.html
```

```
<!doctype html>
<html>
<head>
    <meta charset="utf-8">
    <title>Captcha Validation</title>

    <style>
```

```
body {
    font-family: Arial, sans-serif;
    background-color: #eef2f3;
}

.box {
    width: 350px;
    margin: 80px auto;
    padding: 20px;
    background-color: white;
    border-radius: 8px;
    box-shadow: 0px 0px 10px #aaa;
    text-align: center;
}

.captcha {
    font-size: 22px;
    letter-spacing: 4px;
    font-weight: bold;
    background-color: #ddd;
    padding: 10px;
    margin-bottom: 15px;
}

input, button {
    width: 100%;
    padding: 8px;
    margin-top: 10px;
}

button {
    background-color: #28a745;
    color: white;
    border: none;
    cursor: pointer;
}

button:hover {
    background-color: #1e7e34;
}

#msg {
```

```

        margin-top: 15px;
        font-weight: bold;
    }
</style>

<script>
    var captchaText = "A7X9P";
    var attempts = 0;

    function validateCaptcha() {
        var userInput = document.getElementById("captchaInput").value;

        if (userInput === captchaText) {
            document.getElementById("msg").innerHTML =
                "Captcha Matched ✓";
            document.getElementById("msg").style.color =
                "green";
        } else {
            attempts++;
            document.getElementById("msg").innerHTML =
                "Incorrect Captcha. Attempt " + attempts;
            document.getElementById("msg").style.color =
                "red";

            if (attempts >= 3) {
                document.getElementById("captchaInput").disabled =
                    true;
                document.getElementById("msg").innerHTML =
                    "Too many failed attempts. Textbox disabled.";
            }
        }
    }
</script>

```

```
</head>

<body>
    <div class="box">
        <h2>Captcha Verification</h2>

        <div class="captcha">A7X9P</div>

        <input type="text" id="captchaInput"
               placeholder="Enter Captcha">

        <button onclick="validateCaptcha()">Submit</button>

        <p id="msg"></p>
    </div>
</body>
</html>
```

## Run

```
python manage.py runserver 8080
```

## Output

Case 1: Correct Captcha

### Captcha Verification

A 7 X 9 P

Submit

Captcha Matched ✓

Case 2: Incorrect Captcha(< 3 tries)

### Captcha Verification

A 7 X 9 P

Submit

Incorrect Captcha. Attempt 1

Case 3: Incorrect Captcha 3rd try

## Captcha Verification

A 7 X 9 P

ABCDE

Submit

Too many failed attempts. Textbox disabled.