Lab 5 - Developing Web App using Django – Part 1

Q1.

Codes:

urls.py:

```python
from django.contrib import admin
from django.urls import path
from q1.views import home
from q2.views import home2
from a1.views import home3

urlpatterns = [
    path('admin/', admin.site.urls),
    path('q1/',home),
    path('q2/',home2),
    path('a1/',home3),
]
```

student_form.html:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Student Entry Form</title>
    <style>
        body {
            background-color: #f0f0f0;
            font-family: Arial, sans-serif;
            padding: 20px;
        }
        .my-form {
            background-color: white;
            border: 2px solid black;
            padding: 15px;
            width: 400px;
        }
        .marks-box {
            border: 1px solid red;
            padding: 10px;
            margin: 10px 0;
            background-color: #fff0f0;
        }
```

```
        input {
            margin-bottom: 10px;
            display: block;
            width: 90%;
        }
        button {
            background-color: yellow;
            font-weight: bold;
            padding: 10px;
            cursor: pointer;
        }
        #output {
            margin-top: 20px;
            width: 100%;
            background-color: #e8ffe8;
        }
        .result-tag {
            background-color: blue;
            color: white;
            padding: 5px;
            margin-top: 10px;
            display: inline-block;
        }
    </style>
</head>
<body>
    <div class="my-form">
        <h2>Student Perfomance: </h2>

        <label>Name:</label>
        <input type="text" id="stuName">

        <label>Date of Birth:</label>
        <input type="date" id="stuDob">

        <label>Address:</label>
        <input type="text" id="stuAddr">

        <label>Contact:</label>
        <input type="text" id="stuContact">

        <label>Email:</label>
        <input type="email" id="stuEmail">
```

```html
        <div class="marks-box">
            <b>Enter Marks:</b><br>
            English: <input type="number" id="mEng">
            Physics: <input type="number" id="mPhy">
            Chemistry: <input type="number" id="mChem">
        </div>

        <button onclick="addStudent()">SUBMIT DETAILS</button>
        <hr>
        <label>All Records:</label><br>
        <textarea id="output" rows="10"></textarea>

        <div class="result-tag">
            Total Percentage: <span id="finalPerc">0</span>%
        </div>
    </div>

    <script>
        function addStudent() {
            var name = document.getElementById("stuName").value;
            var dob = document.getElementById("stuDob").value;
            var mail = document.getElementById("stuEmail").value;

            var e = parseFloat(document.getElementById("mEng").value) || 0;
            var p = parseFloat(document.getElementById("mPhy").value) || 0;
            var c = parseFloat(document.getElementById("mChem").value) || 0;

            var total = e + p + c;
            var per = (total / 300) * 100;

            var info = "NAME: " + name + ", DOB: " + dob + ", EMAIL: " + mail +
", MARKS: " + e + "," + p + "," + c + "\n";

            document.getElementById("output").value += info;
            document.getElementById("finalPerc").innerText = per.toFixed(2);
            document.getElementById("stuName").value = "";
        }
    </script>
</body>
</html>
```

views.py:

```python
from django.shortcuts import render

def home(request):
    student_data = None
    percentage = None

    if request.method == 'POST':
        name = request.POST.get('name')
        dob = request.POST.get('dob')
        address = request.POST.get('address')
        contact = request.POST.get('contact')
        email = request.POST.get('email')
        english = int(request.POST.get('english', 0))
        physics = int(request.POST.get('physics', 0))
        chemistry = int(request.POST.get('chemistry', 0))

        total_marks = english + physics + chemistry
        max_marks = 300
        percentage = round((total_marks / max_marks) * 100, 2)

        student_data = f"""Student Name: {name}
Date of Birth: {dob}
Address: {address}
Contact Number: {contact}
Email ID: {email}

--- Marks ---
English: {english}/100
Physics: {physics}/100
Chemistry: {chemistry}/100

Total Marks: {total_marks}/{max_marks}
Percentage: {percentage}%"""

    return render(request, 'student_form.html', {
        'student_data': student_data,
        'percentage': percentage
    })
```

settings.py:

```python
INSTALLED_APPS = [
    'django.contrib.admin',
```

```
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'q1',
    'q2',
    'a1',
]
```

Output:

Q2.

Codes:

urls.py:

```python
from django.contrib import admin
from django.urls import path
from q1.views import home
from q2.views import home2
from a1.views import home3

urlpatterns = [
    path('admin/', admin.site.urls),
    path('q1/',home),
    path('q2/',home2),
    path('a1/',home3),
]
```

promotion_form.html:

```html
<!DOCTYPE html>
<html>
<head>
    <title>Promotion Eligibility</title>
    <style>
        body { font-family: sans-serif; padding: 40px; background: #f4f7f6; }
        .card {
            max-width: 400px;
            background: white;
            padding: 20px;
            border-radius: 8px;
            box-shadow: 0 2px 5px rgba(0,0,0,0.1);
        }
        .form-group { margin-bottom: 15px; }
        label { display: block; margin-bottom: 5px; font-weight: bold; }
        select, input { width: 100%; padding: 8px; border: 1px solid #ccc;
border-radius: 4px; }
        button {
            background: #2c3e50; color: white; border: none;
            padding: 10px 15px; cursor: pointer; border-radius: 4px; width: 100%;
        }
```

```css
        .result-label {
            margin-top: 20px; font-size: 1.2rem; font-weight: bold;
            text-align: center; color: #e67e22;
        }
    </style>
</head>
<body>

<div class="card">
    <h2>Promotion Check</h2>
    <form method="POST">
        {% csrf_token %}

        <div class="form-group">
            <label>Select Employee ID:</label>
            <select name="emp_id">
                {% for id in employee_ids %}
                    <option value="{{ id }}">{{ id }}</option>
                {% endfor %}
            </select>
        </div>

        <div class="form-group">
            <label>Date of Joining:</label>
            <input type="date" name="doj" required>
        </div>

        <button type="submit">Am I Eligible for Promotion?</button>
    </form>

    {% if result %}
        <div class="result-label">
            Promotion Eligible: {{ result }}
        </div>
    {% endif %}
</div>
</body>
</html>
```

views.py:

```python
# Create your views here.
from django.shortcuts import render
from datetime import datetime, date
```

```python
def home2(request):
    employee_ids = ['EMP001', 'EMP002', 'EMP003', 'EMP004', 'EMP005']
    result = None

    if request.method == "POST":
        doj_str = request.POST.get('doj')

        if doj_str:
            doj = datetime.strptime(doj_str, '%Y-%m-%d').date()
            today = date.today()
            experience = (today - doj).days / 365.25

            if experience > 5:
                result = "YES"
            else:
                result = "NO"

    return render(request, 'promotion_form.html', {
        'employee_ids': employee_ids,
        'result': result
    })
```

settings.py:

```python
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'q1',
    'q2',
    'a1',
]
```

Output:

127.0.0.1:8000/q2/

Promotion Check

Select Employee ID:

EMP003

Date of Joining:

14-03-2022

Am I Eligible for Promotion?

Promotion Eligible: NO