

Questions

Flask – Familiarization Practice Tasks

Flask Practice 1: Route Basics

Task:

Create a Flask app with 3 routes:

- `/` → displays “Welcome to Flask”
- `/about` → displays your name
- `/contact` → displays your email

Concepts Practiced:

- ✓ Routing
 - ✓ URL handling
-

Flask Practice 2: Variable in URL

Task:

Create a route `/hello/<name>` that displays:

Hello, <name>!

Concepts Practiced:

- ✓ Dynamic routing
 - ✓ URL parameters
-

Flask Practice 3: GET vs POST

Task:

Create a page with:

- A form that takes one number
- On submit, display the square of the number

Concepts Practiced:

- ✓ HTML forms

- ✓ POST method
 - ✓ Request object
-

Flask Practice 4: Template Rendering

Task:

Create an HTML template and pass:

- Your name
- Current year

Display them in the template.

Concepts Practiced:

- ✓ Ninja templates
 - ✓ Variable passing
-

Flask Practice 5: If–Else in Template

Task:

Pass a temperature value from backend.

Display:

- “Hot” if > 30
- “Normal” otherwise

Concepts Practiced:

- ✓ Conditional rendering
-

Flask Practice 6: Loop in Template

Task:

Pass a list of subjects from Flask.

Display them using a loop in HTML.

Concepts Practiced:

- ✓ Loops in Ninja
- ✓ Data transfer

Django – Familiarization Practice Tasks

Django Practice 1: Project & App Structure

Task:

Create a Django project and one app.

Display:

This is my first Django app

Concepts Practiced:

- ✓ Project vs App
 - ✓ Views & URLs
-

Django Practice 2: Multiple URLs

Task:

Create three URLs:

- /
- /about
- /services

Each should display a different message.

Concepts Practiced:

- ✓ URL routing
 - ✓ Views
-

Django Practice 3: Template Rendering

Task:

Create an HTML template and render it from a view.

Concepts Practiced:

- ✓ Templates
- ✓ render()

Django Practice 4: Passing Data to Template

Task:

Pass your name and college name from view to template.

Concepts Practiced:

✓ Context dictionary

Django Practice 5: If–Else in Template

Task:

Pass a number to the template.

Display:

- “Even” or “Odd”

Concepts Practiced:

✓ Django template tags

Django Practice 6: For Loop in Template

Task:

Pass a list of programming languages and display them.

Concepts Practiced:

✓ Template loops

Django Practice 7: Form Basics (No DB)

Task:

Create a form with one input field.

On submit, display the entered value on the same page.

Concepts Practiced:

✓ GET vs POST

✓ CSRF token

✓ request.POST

Hints

FLASK – Practice

Flask Practice 1: Route Basics

```
from flask import Flask  
  
app = Flask(__name__)  
  
@app.route('/')  
def home():  
    return "Welcome to Flask"  
  
@app.route('/about')  
def about():  
    return "Sai Charan Teja"  
  
@app.route('/contact')  
def contact():  
    return "email@example.com"  
  
if __name__ == '__main__':  
    app.run(debug=True)
```

Flask Practice 2: Variable in URL

```
from flask import Flask
```

```
app = Flask(__name__)
```

```
@app.route('/hello/<name>')
```

```
def hello(name):
```

```
    return f"Hello, {name}!"
```

```
if __name__ == '__main__':
```

```
    app.run(debug=True)
```

Flask Practice 3: GET vs POST (Square of Number)

app.py

```
from flask import Flask, render_template, request
```

```
app = Flask(__name__)
```

```
@app.route('/', methods=['GET', 'POST'])
```

```
def square():
```

```
result = None

if request.method == 'POST':

    num = int(request.form['number'])

    result = num * num

return render_template('square.html', result=result)
```

```
if __name__ == '__main__':
    app.run(debug=True)
```

templates/square.html

```
<form method="POST">

<input type="number" name="number" required>

<button type="submit">Submit</button>

</form>
```

```
{% if result %}

<p>Square is {{ result }}</p>

{% endif %}
```

Flask Practice 4: Template Rendering

```
@app.route('/info')

def info():
```

```
return render_template('info.html', name="Sai", year=2026)

<p>Name: {{ name }}</p>

<p>Year: {{ year }}</p>
```

Flask Practice 5: If–Else in Template

```
@app.route('/temp')

def temp():

    return render_template('temp.html', t=35)

{% if t > 30 %}

<p>Hot</p>

{% else %}

<p>Normal</p>

{% endif %}
```

Flask Practice 6: Loop in Template

```
@app.route('/subjects')

def subjects():

    return render_template('subjects.html', subs=["Python", "Flask",
"Django"])

<ul>

{% for s in subs %}
```

```
<li>{{ s }}</li>  
{% endfor %}  
</ul>
```

DJANGO – Practice Answers

Django Practice 1: First App Output

views.py

```
from django.http import HttpResponse
```

```
def home(request):  
    return HttpResponse("This is my first Django app")
```

urls.py

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

```
urlpatterns = [  
    path("", home),  
]
```

Django Practice 2: Multiple URLs

```
def about(request):
    return HttpResponse("About Page")

def services(request):
    return HttpResponse("Services Page")

urlpatterns = [
    path("", home),
    path('about/', about),
    path('services/', services),
]
```

Django Practice 3: Template Rendering

```
from django.shortcuts import render

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

Django Practice 4: Passing Data to Template

```
def home(request):
    return render(request, 'home.html', {
        'name': 'Sai',
```

```
'college': 'APS College'  
})  
<p>Name: {{ name }}</p>  
<p>College: {{ college }}</p>
```

Django Practice 5: If–Else Template

```
def check(request):  
    return render(request, 'check.html', {'num': 7})  
  
{% if num|divisibleby:2 %}  
<p>Even</p>  
{% else %}  
<p>Odd</p>  
{% endif %}
```

Django Practice 6: Loop in Template

```
def langs(request):  
    return render(request, 'langs.html', {  
        'langs': ['Python', 'Java', 'C++']  
    })  
  
<ul>  
{% for l in langs %}
```

```
<li>{{ i }}</li>  
{% endfor %}  
</ul>
```

Django Practice 7: Simple Form (No DB)

views.py

```
def form(request):  
    data = None  
  
    if request.method == 'POST':  
  
        data = request.POST.get('value')  
  
    return render(request, 'form.html', {'data': data})
```

form.html

```
<form method="POST">  
  
    {% csrf_token %}  
  
    <input type="text" name="value">  
  
    <button type="submit">Submit</button>  
  
</form>
```

```
{% if data %}  
  
<p>You entered: {{ data }}</p>  
  
{% endif %}
```