

ASSIGNMENT 1

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1. Create registration page in html with username, email and phone number and by using POST method display it in next html page.

Register.html

```
<html>

<head>

    <title> Registration Page</title>

    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">

</head>

<body>

    <h1>Registration Page</h1>

    <form action="Register.php" method="POST">

        <label for="User Name">User Name:</label>

        <input type="text" name="User Name"> <br/>

    <br/>

        <label for="Email">Email:</label>

        <input type="Email" name="Email"> <br/>

    <br/>

        <label for="Phone Number">Phone Number:</label>

        <input type="Phone Number" name="Phone Number"> <br/>

    <br/>

        <input type="submit" value="Register!">
```

```
</form>
```

```
</body>
```

```
</html>
```

Register.php

```
<?php
```

```
echo "You have submitted, User Name: " . $_POST['User Name'] . ", Email: " . $_POST['Email']. " and  
Phone Number: " . $_POST['Phone Number'];
```

```
?>
```

2. Develop a flask program which should contain at least 5 packages used from pypi.org.

```
import os
```

```
import shutil
```

```
import pytest
```

```
from flask import render_template, render_template_string, request
```

```
from jinja2.exceptions import TemplateNotFound
```

```
from jinja2.sandbox import SecurityError
```

```
from werkzeug.test import Client
```

```
from CTFd.config import TestingConfig
```

```
from CTFd.utils import get_config, set_config
```

```
from tests.helpers import create_ctfd, destroy_ctfd, gen_user, login_as_user
```

```
def test_themes_run_in_sandbox():
```

```
    app = create_ctfd()
```

```
    with app.app_context():
```

```
        try:
```

```
            app.jinja_env.from_string(
```

```
                "{{ ().__class__.__bases__[0].__subclasses__()[40]('./test_utils.py').read() }}"
```

```
            ).render()
```

```

except SecurityError:
    pass

except Exception as e:
    raise e

destroy_ctfd(app)

def test_themes_cant_access_configpy_attributes():
    app = create_ctfd()
    with app.app_context():
        assert app.config["SECRET_KEY"] == "AAAAAAAAAAAAAAAAAAAAAA"
        assert (
            app.jinja_env.from_string('{{ get_config('SECRET_KEY') }}').render()
        )

## ... source file abbreviated to get to Flask examples ...

    r = client.get("/challenges")

    assert r.status_code == 200

    assert "Challenges" in r.get_data(as_text=True)

    r = client.get("/scoreboard")

    assert r.status_code == 200

    assert "Scoreboard" in r.get_data(as_text=True)

destroy_ctfd(app)

def test_that_request_path_hijacking_works_properly():
    app = create_ctfd(setup=False, application_root="/ctf")
    assert app.request_class.__name__ == "CTFdRequest"
    with app.app_context():
        with app.test_request_context("/challenges"):
            assert request.path == "/ctf/challenges"

destroy_ctfd(app)

```

```

app = create_ctfd()

assert app.request_class.__name__ == "CTFdRequest"

with app.app_context():

    with app.test_request_context("/challenges"):

        assert request.path == "/challenges"

    from flask import Flask

    test_app = Flask("test")

    assert test_app.request_class.__name__ == "Request"

    with test_app.test_request_context("/challenges"):

        assert request.path == "/challenges"

destroy_ctfd(app)

def test_theme_fallback_config():

    class ThemeFallbackConfig(TestingConfig):

        THEME_FALLBACK = False

    app = create_ctfd(config=ThemeFallbackConfig)

    try:

        os.mkdir(os.path.join(app.root_path, "themes", "foo_fallback"))

    except OSError:

        pass

    with app.app_context():

        app.config["THEME_FALLBACK"] = False

        set_config("ctf_theme", "foo_fallback")

        assert app.config["THEME_FALLBACK"] == False

        with app.test_client() as client:

            try:

r = client.get("/")

```