

[https://github.com/Nomi81/BanoQabil-2.0-Python-Course\\_Final\\_Project](https://github.com/Nomi81/BanoQabil-2.0-Python-Course_Final_Project)

## BANO QABIL 2.0 FINAL PROJECT

### “COURIER TRACKING SYSTEM”

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### Overview:

This Flask Based application serves as a basic Courier Tracking System allowing users to create shipments, track existing ones, update shipment details, and delete shipments. It utilizes SQLite for database management and integrates with Bootstrap for styling.

### Dependencies:

Flask: Python web framework for building web applications.

Flask-Bootstrap: Integration of Bootstrap with Flask for easy UI development.

SQLite3: Database management system used for storing shipment data



```
1 # pip install flask-connector
2 from flask import Flask, render_template, request, redirect, url_for, flash
3 from flask_bootstrap import Bootstrap
4 import random
5 import string
6 import hashlib
7
8 from sqlalchemy import null
```

### Coding Structure:

- app.py: Main Flask application file containing route definitions and database operations.

Find definitions and references for functions and other symbols in this file by clicking a symbol below or in the code.

Filter symbols

- const app
- const bootstrap
- func index
- func track
- func create\_shipment

- index.html: Template for the homepage displaying the Courier Tracking system and a form to track shipments.

```

1 1 (root@kali: ~) ssh -C -L 3333 10.10.10.10 -p 22 -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no
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27 27 1 (root@kali: ~) ssh -C -L 3333 10.10.10.10 -p 22 -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no
28 28

```

[illegible]

- `create_shipment.html`: Template for creating a new shipment with a form.

```

1 #!/usr/bin/env python
2
3 import sys
4
5 class Container:
6     def __init__(self, name, image, command):
7         self.name = name
8         self.image = image
9         self.command = command
10
11     def run(self):
12         # Run the container
13         # This is a placeholder for the actual container management logic
14         print(f"Running container {self.name} with image {self.image} and command {self.command}")
15
16     def stop(self):
17         # Stop the container
18         print(f"Stopping container {self.name}")
19
20     def restart(self):
21         # Restart the container
22         print(f"Restarting container {self.name}")
23
24     def delete(self):
25         # Delete the container
26         print(f"Deleting container {self.name}")
27
28     def __str__(self):
29         return f"Container {self.name} with image {self.image} and command {self.command}"
30
31 # Create a container
32 container = Container("my-container", "my-image", "my-command")
33
34 # Run the container
35 container.run()
36
37 # Stop the container
38 container.stop()
39
40 # Restart the container
41 container.restart()
42
43 # Delete the container
44 container.delete()
45
46 # Print the container
47 print(container)

```

```
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```

- tracking\_result.html: Template to display the details of a tracked shipment and options to update or delete it.

```
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```

- update.html: Template for updating shipment details with a form.

```
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```

- dhl.css: CSS file for styling.

## Functionalities:

## 1. Home Page (/):

- Displays the Courier Tracking system.
- Provides a form to track shipments.

```
7 from datetime import datetime
8
9
10 app = Flask(__name__)
11 app.config['SECRET_KEY'] = 'your_secret_key_here' # Change this to a random string for production
12 bootstrap = Bootstrap(app)
13
14 @app.route('/')
15 def index():
16     # return "Hi!"
17     conn=sqlite3.connect("data/couriertracking/courier.db")
18     data=conn.execute("SELECT * FROM pag WHERE id=1").fetchall()
19     for i in data:
20         return render_template("index.html",i=i)
21
```

## 2. Track Shipment (/track):

- Retrieves shipment details based on the provided tracking ID.
- Renders the tracking result page with shipment details.

```
20 return render_template("index.html",i=i)
21
22 @app.route('/track', methods=['POST'])
23 def track():
24     tracking_id = request.form['tracking_id']
25     conn=sqlite3.connect("data/couriertracking/courier.db")
26     data=conn.execute("SELECT * FROM pag WHERE id=1").fetchall()
27     for i in data:
28         return render_template("tracking.html",i=i)
29
```

## 3. Create Shipment (/create\_shipment):

- Allows users to create new shipments.
- Generates a random tracking ID.
- Inserts shipment details into the database.

```
31 @app.route('/create_shipment', methods=['GET', 'POST'])
32 def create_shipment():
33     if request.method == 'POST':
34         tracking_id = ''.join(random.choices(string.digits, k=10))
35         status = request.form['status']
36         location = request.form['location']
37         eta = request.form['eta']
38         # sqlite3 connection
39         conn=sqlite3.connect("data/couriertracking/courier.db")
40         c = conn.cursor()
41         c.execute("INSERT INTO pag (id,status,location,eta) VALUES (?,?/?/?)/(tracking_id,status,location,eta)")
42         conn.commit()
43         #sqlite3 Connection End
44         flash("Shipment created successfully!", 'success')
45         return redirect(url_for('index'))
46     return render_template("create_shipment.html")
47
```

## 4. Update Shipment (/update and /update\_shipment):

- Allows users to update shipment details.
- Retrieves shipment details based on the provided tracking ID.
- Renders the update page with pre-filled shipment details.
- Updates shipment details in the database upon submission.

```

30 # SQLite Connection
31 conn=sqlite3.connect("C:\ask\CourierTracking\courier.db")
32 c = conn.cursor()
33 c.execute("INSERT INTO pkg (id,status,location,eta) VALUES (?,?,?,?)",(tracking_id,status,location,eta))
34 conn.commit()
35 #SQLite Connection End
36 c.close()
37 return render_template("index.html")
38
39 @app.route("/update", methods=['GET', 'POST'])
40 def update():
41     if request.method == "POST":
42         id = request.form["track_id"]
43         conn=sqlite3.connect("C:\ask\CourierTracking\courier.db")
44         c = conn.cursor()
45         c.execute("UPDATE PKG SET status = ? WHERE id=?", (str(status),id))
46         conn.commit()
47         c.close()
48         return render_template("update.html")
49
50
51

```

## 5. Delete Shipment (/delete):

- Deletes a shipment from the database based on the provided tracking ID.

```

51 @app.route("/delete", methods=['GET', 'POST'])
52 def delete():
53     if request.method == "POST":
54         delete_id = request.form["delete_id"]
55
56         # SQLite Connection
57         conn=sqlite3.connect("C:\ask\CourierTracking\courier.db")
58         c = conn.cursor()
59         c.execute("DELETE FROM pkg WHERE id = ?", (delete_id,))
60         conn.commit()
61         c.close()
62         return render_template("index.html")
63
64
65
66

```

## Database Structure

- Table Name: **pkg**
- Columns: **id** (tracking ID), **status**, **location**, **eta** (estimated time of arrival)