

## IMPLEMENTING WEB APPLICATION

### CREATING API IN FLASK

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ProjectName	CONTAINMENT ZONE ALERTING APPLICATION

```
from flask import Flask, request, jsonify app =
```

```
Flask(__name__)
```

```
@app.route('/') def hello_world(): return 'This  
is my first API call!'
```

```
@app.route('/post', methods=["POST"]) def testpost():  
input_json = request.get_json(force=True) dictToReturn =  
{ 'text':input_json['text']} return jsonify(dictToReturn)
```

#### **ALTER:**

```
import os import time  
import datetime  
import requests  
import json import  
flask import boto3  
import psycopg2 from  
flask import request
```

```
app = flask.Flask(__name__)
app.config["DEBUG"] = True db_cred =
os.environ['DB_CRED']
```

```
def connectToDb(): conn =
    psycopg2.connect(db_cred)
    cur = conn.cursor() return conn,
    cur
```

```
def closeDbConnection(conn, cur):
    cur.close() conn.close()
```

```
#This function will be used to execute a query and return the result def db_query(query):
conn, cur = connectToDb() cur.execute(query)
    res = cur.fetchall() closeDbConnection(conn, cur)
    return res
```

```
#This function will be used to insert a row or rows into the database def db_insert(query,
values):
```

```
    conn, cur = connectToDb() cur.execute(query, values)
    conn.commit() close
```

## # Why use an API?

\* **\*\*Decoupling\*\***: By using an API other components are only dependent on the API, not the internals of the component, which means you can make changes to the internals without breaking the dependents.

\* **\*\*Language Independence\*\***: An API can be called from any programming language.

- \* **\*\*Isolation\*\***: By using an API, the components using the API are isolated from each other. One component can be replaced without affecting any other component that uses the API.

## # What is Flask?

Flask is a microframework for Python based on Werkzeug, Jinja 2 and good intentions.

(/images/flask.png)

## # Why use Flask?

- \* **\*\*Light\*\***: Flask is one of the lightest frameworks available.
- \* **\*\*Easy to use\*\***: Flask is easy to use and it's well documented.
- \* **\*\*Flexible\*\***