

## IMPLEMENTING WEB APPLICATION

### CREATING API IN FLASK

```
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**