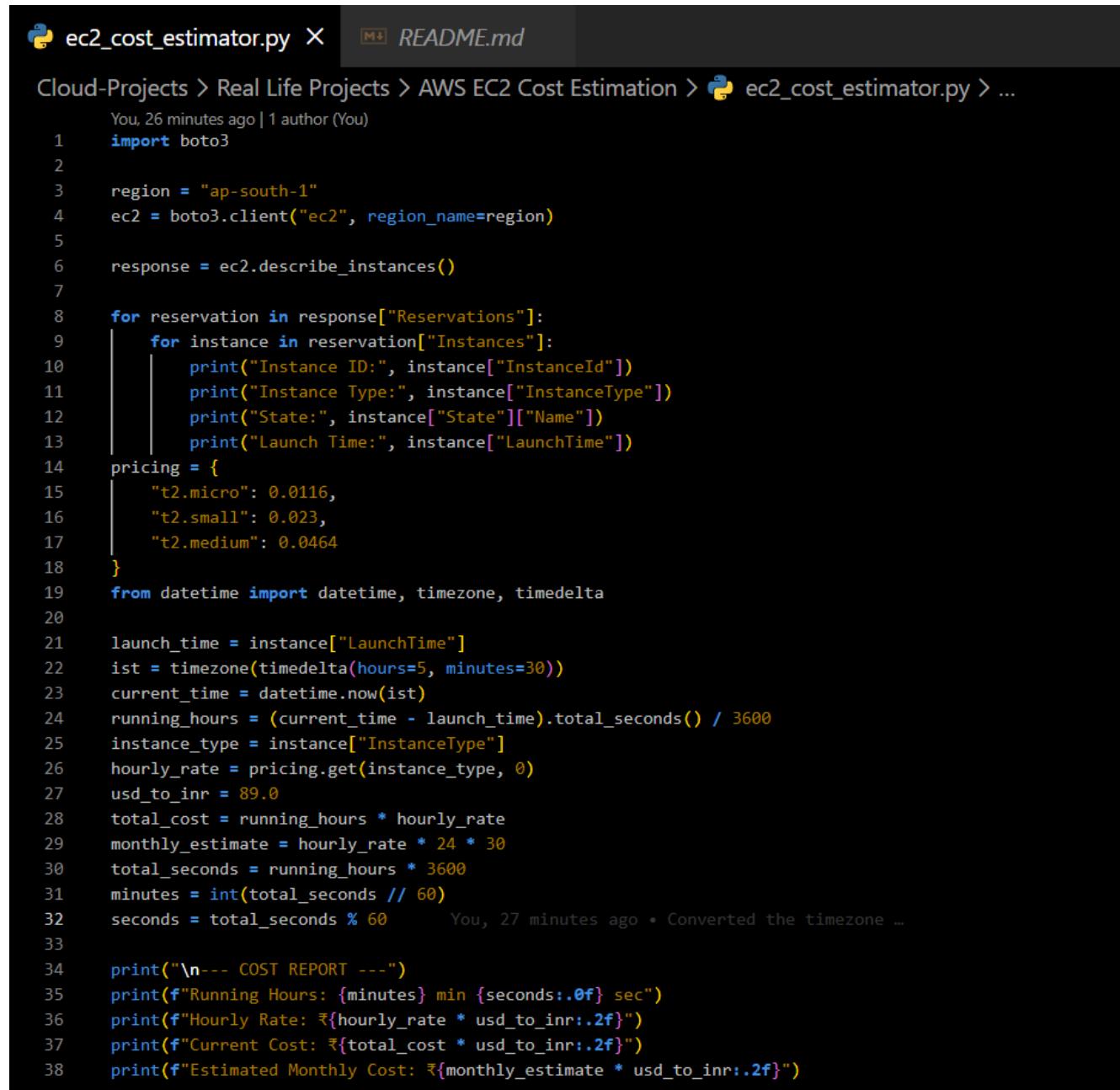


# AWS EC2 Cost Estimation using Python:



The screenshot shows a GitHub repository interface. The repository is titled "AWS EC2 Cost Estimation". The main file displayed is "ec2\_cost\_estimator.py". The code is written in Python and uses the Boto3 library to interact with the AWS EC2 service. It prints details about running instances and calculates their cost based on usage and instance type. The code includes comments explaining the logic and some print statements for reporting.

```
You, 26 minutes ago | 1 author (You)
1 import boto3
2
3 region = "ap-south-1"
4 ec2 = boto3.client("ec2", region_name=region)
5
6 response = ec2.describe_instances()
7
8 for reservation in response["Reservations"]:
9     for instance in reservation["Instances"]:
10         print("Instance ID:", instance["InstanceId"])
11         print("Instance Type:", instance["InstanceType"])
12         print("State:", instance["State"]["Name"])
13         print("Launch Time:", instance["LaunchTime"])
14
15 pricing = {
16     "t2.micro": 0.0116,
17     "t2.small": 0.023,
18     "t2.medium": 0.0464
19 }
20
21 from datetime import datetime, timezone, timedelta
22
23 launch_time = instance["LaunchTime"]
24 ist = timezone(timedelta(hours=5, minutes=30))
25 current_time = datetime.now(ist)
26 running_hours = (current_time - launch_time).total_seconds() / 3600
27 instance_type = instance["InstanceType"]
28 hourly_rate = pricing.get(instance_type, 0)
29 usd_to_inr = 89.0
30 total_cost = running_hours * hourly_rate
31 monthly_estimate = hourly_rate * 24 * 30
32 total_seconds = running_hours * 3600
33 minutes = int(total_seconds // 60)
34 seconds = total_seconds % 60
35
36 print("\n--- COST REPORT ---")
37 print(f"Running Hours: {minutes} min {seconds:.0f} sec")
38 print(f"Hourly Rate: ₹{hourly_rate * usd_to_inr:.2f}")
39 print(f"Current Cost: ₹{total_cost * usd_to_inr:.2f}")
40 print(f"Estimated Monthly Cost: ₹{monthly_estimate * usd_to_inr:.2f}")
```

The screenshot displays two main sections of the AWS console. The top section is the EC2 Instances page, showing a single instance named 'Cost-Estimator-VM' (i-06c3a22ea6f3f3b2c) which is running. The bottom section is the IAM User details for 'ec2-cost-user', showing its ARN, access key information, and attached policies.

## Outcome

This project demonstrates **real-time AWS cost estimation**, secure cloud access using IAM, and practical cost-optimization awareness—making it suitable for **cloud, DevOps, and entry-level AWS roles**.

```
DELL@DESKTOP-IUVS90A MINGW64 /d/Desktop/GIT/Cloud/Cloud-Projects/Real Life Projects/AWS EC2 Cost Estimation (main)
$ python ec2_cost_estimator.py
Instance ID: i-06c3a22ea6f3f3b2c
Instance Type: t2.micro
State: running
Launch Time: 2025-12-26 12:51:33+00:00

--- COST REPORT ---
Running Hours: 58 min 43 sec
Hourly Rate: ₹1.03
Current Cost: ₹1.01
Estimated Monthly Cost: ₹743.33
```