



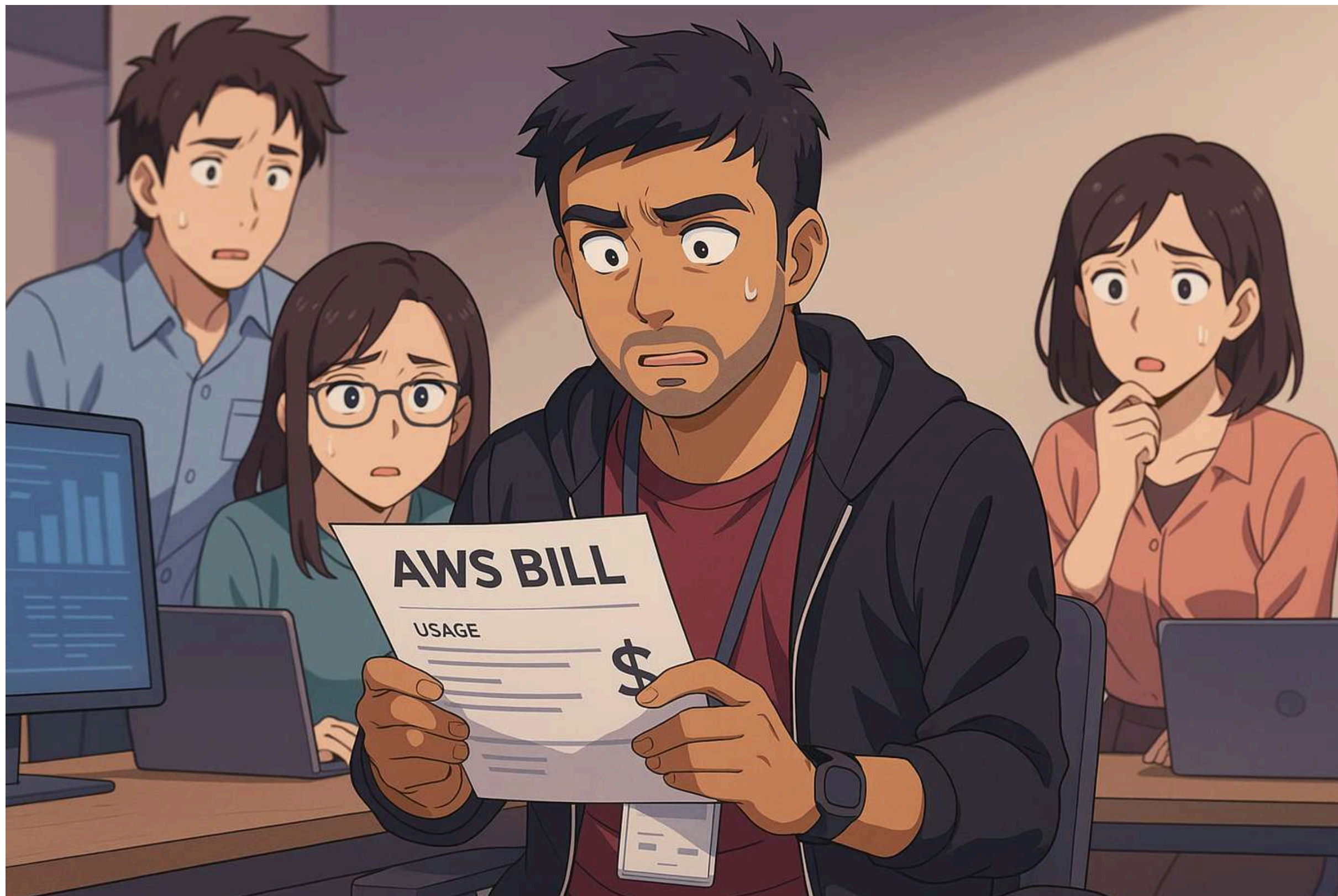
BEYOND CODE: A DEVELOPER'S GUIDE TO AWS COST AWARENESS & SMART CLOUD DECISIONS



AWS Finally Fixed a Billing Trap

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The Unexpected AWS Bill

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The Developer's Blindspot

As developers, we're trained to think about:

- Is it working?
- Is it scalable?
- Is it maintainable?

What's Missing

💰 Is it cost-effective?

🤔 Are we wasting resources?



From Problem to Solution

- Problem: Continuous running of dev/staging environments
- Old Cost: \$256-\$260 monthly for 3 EC2 instances but actually running 6 instances (which has no used) and some are stopped with EP attached

Analyse

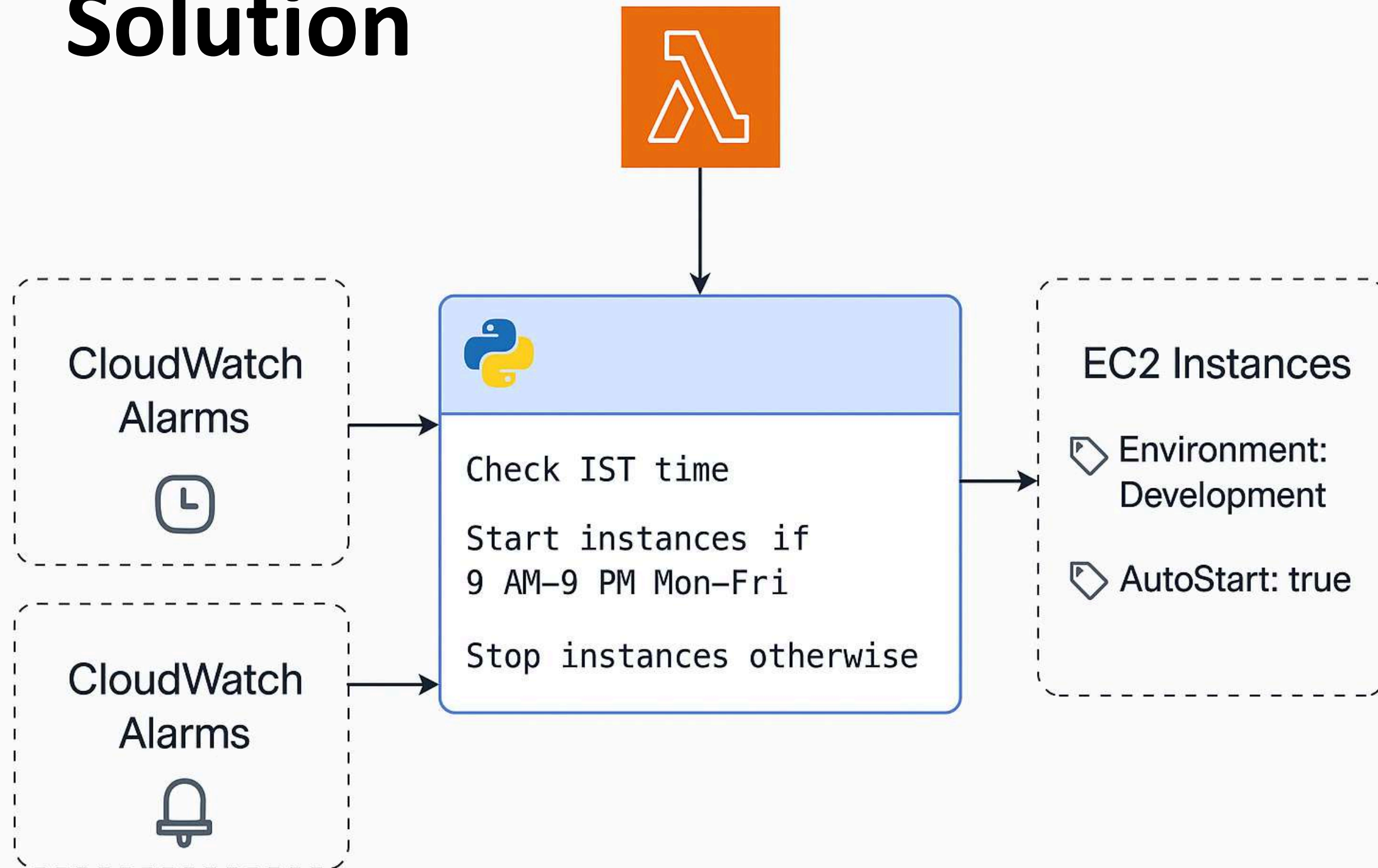
- How many instances running ?
- How many are actually using ?
- How many are stopped didn't complete cleanup
- How many hours instance requirement is ?
- is any instances are well optimised ?
- Many more....

Solution

Lambda + CloudWatch Event Rules

- Automatically stop environments after work hours
- Restart during work hours
- Completely offline during weekends

Solution



Scan for code samples

Result

Immediate 50% cost reduction

- Dropped monthly bill to \$150
- Minimal development effort
- Maximum financial impact

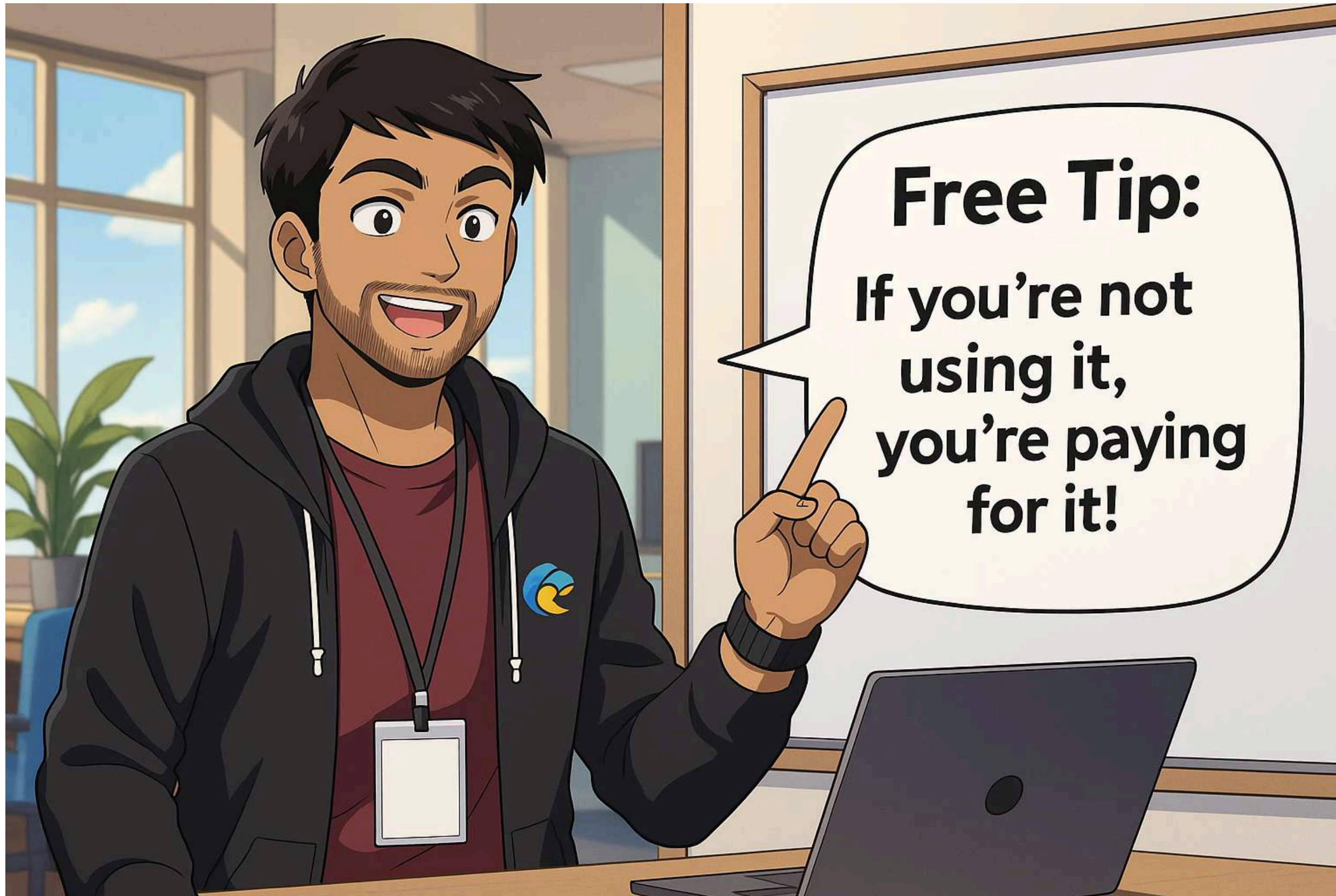


The Elastic IP Trap

AWS Update (Feb 2024): Elastic IPs No Longer Free

Discovery: Unexpected charges for unused IPs

- Action Taken: Comprehensive IP address audit
- Released IPs for stopped instances
- Kept only essential static IPs



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**One Forgotten IP Can Cost
More Than Your Morning
Coffee**

Cost Optimization Toolkit

3 Essential Developer Strategies

AWS Cost Explorer

- Identify unexpected cost increases
- Filter and analyze by service/tag

AWS Budgets

- Set alerts at 50%, 75%, 90% of target
- Catch spending spikes early

Smart Tagging

- Track resources by project
- Set expiration dates
- Identify ownership

Service Cost Comparison

Choosing the Right Service

Cheapest ≠ Most Cost-Effective

Service	Monthly Cost	Best For
Lambda	\$750	Small, sporadic tasks
Fargate	\$320	Consistent workloads
EC2	\$180	Complex, long-running tasks

Service Selection Playbook

Know your DNA

- Task duration (seconds vs. hours)
- Traffic patterns (spiky vs. consistent)
- Scaling requirements (instant vs. gradual)
- Complexity (simple function vs. entire system)

Service Selection Playbook

True Cost

- Direct service costs + operational overhead
- Development time + maintenance burden
- Scaling costs + risk of over-provisioning

Service Selection Playbook

Hybrid Approaches

- Use Lambda for APIs, EC2 for background jobs
- Mix Reserved Instances for base load, Spot for variable
- Shift static content to S3, dynamic to compute services



**Re-evaluate your choices
quarterly as workloads
evolve!**

Developer's Checklist

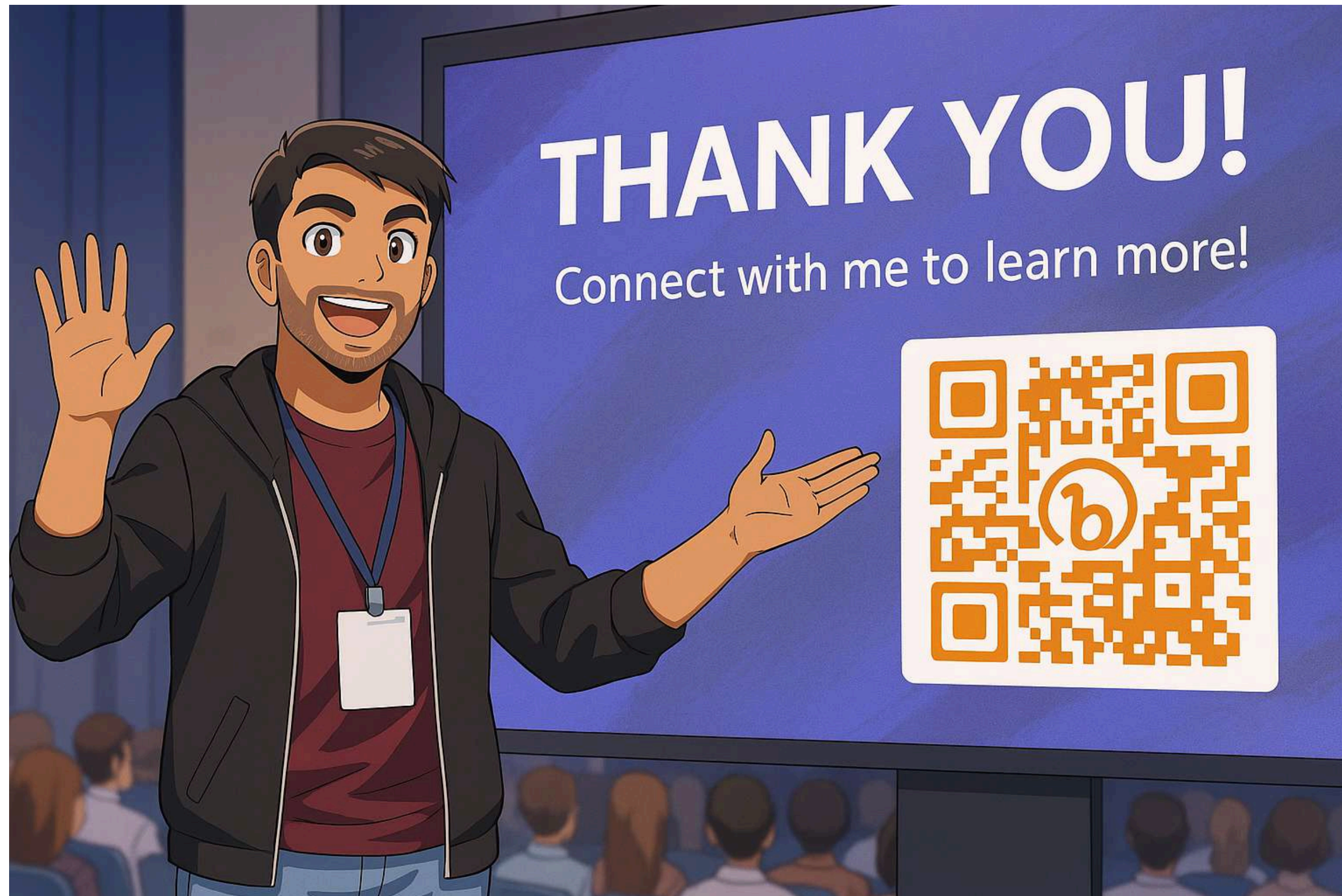




**Cost optimisation is a
developer skill**

Final Takeaways





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