

✔ Cloud Cost Prevention Checklist for Azure Functions & Serverless Apps

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🔍 Purpose:

This checklist is for developers, architects, and teams working with **Azure Functions** or **serverless workloads**. Use it to avoid **unexpected cloud billing**, **retry storms**, or performance bottlenecks.

📋 CLOUD COST PREVENTION CHECKLIST

✔ Code-Level Checks

- Are you making external API/database calls inside a loop?
- Have you implemented exponential backoff for retries?
- Are async calls properly awaited (no unbounded parallelism)?
- Is your function idempotent (safe from duplicate execution)?
- Are all long-running tasks offloaded to Durable Functions or queues?

✔ Timeouts & Triggers

- Is the function timeout configured correctly based on workload?
- Are you using the right trigger type (Timer vs Queue vs HTTP)?
- Do you batch or throttle requests based on external limits?

✔ Monitoring & Alerting

- Do you have Azure Monitor alerts for execution time & memory usage?
- Have you configured alerts on:
 - Retry count spikes?
 - Function failure rates?
 - Cost thresholds?

✔ Cost Visibility

- Is **Cost Analysis** enabled in Azure Portal?
- Have you created **budget alerts** per resource group or app?
- Do you review **function-level metrics** weekly?

✔ Deployment Practices

- Are you running **pre-prod load tests** with real or simulated data?
- Do you deploy with feature flags to limit exposure?
- Have you enabled detailed logging for cost-intensive areas?

✔ Scaling & Consumption Plan

- Are you using the right hosting plan (Consumption vs Premium vs Dedicated)?
- Do you understand the per-execution billing breakdown?
- Have you considered **minimum instance limits** on Premium Plan to prevent cold starts and scaling delays?

📌 Bonus Tip:

Use [Azure Application Insights](#) to visualize request volume, duration, and failure rate **before** costs become a surprise.

🧠 Final Thought:

In cloud development, it's easy to forget that **every execution = cost**.
Make every line of code (and log) count.

Need help implementing this checklist in your project?

📧 Reach out via dheergupta.in or connect on LinkedIn.