

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

School Snack Planner MCP

Automate snack distribution planning and budget management for students.

School Snack Planner connects your AI client to school inventory and nutritional management systems. It handles the heavy lifting of calculating quantities, checking stock, and ensuring every snack choice stays within budget and meets dietary requirements for your student groups.

A+ Quality Score 100/100

school

snack

budget

inventory

dietary



SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

School Snack Planner MCP

4 tools available

Cloud-hosted on Vinkius

Managing snack programs for schools involves constant juggling between tight budgets, strict dietary needs, and fluctuating inventory levels. This MCP gives your AI agent direct access to these variables so you can stop manual calculations. Instead of cross-referencing spreadsheets, you can ask your agent to build a snack plan that respects allergy exclusions and stays under your spending limit. It checks what you actually have in the pantry before suggesting a plan, preventing over-ordering or last-minute shortages. You can use it to figure out exactly how many units of a specific item you need for a specific group of students or to find the most cost-effective way to feed everyone while still meeting nutritional goals. It turns a complex logistical headache into a simple conversation with your AI client.

Core Capabilities

01 — Inventory Verification

Your agent checks current stock levels to ensure you don't plan for snacks you don't have.

02 — Dietary Compliance

The AI validates snack lists against specific dietary exclusions to keep students safe.

03 — Budget Enforcement

Your agent compares proposed snack costs against your set budget limits.

04 — Quantity Forecasting

The AI calculates the total number of snack units needed based on student counts and timeframes.

05 — Cost Optimization

Your agent identifies snack combinations that stretch your budget to feed the most students.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/school-snack-planner — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 Provide your school's inventory and dietary data to your AI agent.
- 03 Ask your agent to calculate needs or optimize snack selections.
- 04 Review the validated plan for budget and dietary compliance.
- 05 Execute your snack distribution based on the AI's output.

Connect your AI client to the Vinkius-hosted MCP to start managing snack logistics through natural language.

Built For

This MCP is built for school administrators and nutrition coordinators who manage large-scale food distribution.

School Nutrition Director

Hands off budget management and dietary compliance checks to the AI.

Cafeteria Manager

Uses the AI to monitor inventory levels and plan upcoming snack orders.

School Administrator

Delegates the math of snack distribution and student group requirements to their agent.

What Changes When You Connect

- 01 Prevents budget overruns by validating costs before orders are placed.
- 02 Reduces dietary errors by checking snack lists against exclusion rules.

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- | | |
|-----------|---|
| 03 | Eliminates manual math for calculating snack quantities for different student groups. |
| <hr/> | |
| 04 | Prevents stockouts by verifying inventory before finalizing plans. |
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Real-World Applications

Weekly Snack Planning

Calculate exactly how many snacks to order for a specific grade level for the upcoming week.

Allergy Safety Checks

Run a proposed snack list through the validation tool to ensure no excluded items are included.

Budget-Constrained Ordering

Ask the AI to find the best snack mix that stays under a specific dollar amount.

Inventory Auditing

Compare planned snack needs against what is currently sitting in the school pantry.

Patterns to Avoid

Ignoring current pantry levels

❌ AVOID

You ask your agent to order 500 granola bars for next week without checking what is already in the storage room.

✓ INSTEAD

Always use `check_stock_availability` first to see what you already have before finalizing any new orders.

Overlooking dietary restrictions

❌ AVOID

You pick a bulk snack pack because it is cheap, assuming it works for everyone in the student body.

✓ INSTEAD

Run your final selection through `validate_snack_plan` to ensure no students are at risk due to allergies or dietary needs.

Guessing student group sizes

❌ AVOID

You manually estimate how many snacks to buy for the third grade based on last year's numbers.

✓ INSTEAD

Use `calculate_snack_needs` to get an exact count based on your current student enrollment and specific group requirements.

The Right Fit

School nutrition directors and cafeteria managers should connect this MCP if they manage high-volume food distribution with strict budget and allergy constraints. If you are a single parent packing one lunch a day, you don't need this. The decision comes down to whether you are currently manually cross-referencing spreadsheets to manage food safety and costs.

School Snack Planner MCP Tools

These tools handle the math, inventory checks, and dietary safety requirements for school snack programs.

#	TOOL	DESCRIPTION
01	calculate_snack_needs	This tool determines the exact quantity of specific snacks required for your student groups.
02	optimize_snack_selection	Use this to find snack combinations that maximize the number of students you can feed.
03	check_stock_availability	This tool verifies if your current inventory has enough of the requested snacks on hand.
04	validate_snack_plan	This tool checks your proposed snack list against dietary restrictions, budget limits, and shelf life.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How many units of snack 'apple_slices_01' do I need for 50 students over 5 days?



To feed 50 students for 5 days, you will need 250 units of apple slices.

U Is my snack plan valid if I have a budget of \$100 and want to include 'peanut_butter_01' which is on my exclusion list?



No, the plan is invalid because 'peanut_butter_01' is included in the excluded snack IDs.

U Find the best snack combination for 100 students for 3 days with a \$150 budget, avoiding 'dairy_free_01'.



The optimized selection includes 300 units of 'granola_bars_02' and 300 units of 'juice_box_05' for a total cost of \$135.00.

Frequently Asked Questions

01 How does this MCP handle food allergies?

The `validate_snack_plan` tool checks your proposed snack list against specific dietary exclusions to ensure safety.

02 Can I use this to stay within a specific budget?

Yes, the tool validates snack plans against your budget and can optimize selections to maximize student coverage for your spending.

03 Does it check if I actually have the snacks in stock?

Yes, the `check_stock_availability` tool verifies if the quantities you want to use are available in your current inventory.

04 What AI clients can I use with this MCP?

You can use any MCP-compatible client like Claude, Cursor, Windsurf, or VS Code.

05 How does it calculate how much food to buy?

The `calculate_snack_needs` tool determines the total quantity of snacks required based on the number of students and the duration of the plan.

06 How do I ensure my snack plan stays within budget?

You can use the `optimize_snack_selection` tool to automatically find a combination of snacks that maximizes student coverage while staying under your specified `budgetLimit`.

07 Can I exclude specific snacks due to allergies?

Yes. When using `validate_snack_plan` or `optimize_snack_selection`, you can provide a list of `excludedSnackIds` to ensure forbidden items are never included in the plan.

08 How does the system handle food shelf life?

The `validate_snack_plan` tool checks the remaining shelf life of every item against the `daysToCover` to ensure all snacks remain safe for the entire duration.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+" Add New MCP Server → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"school-snack-planner": { "url": "..." }</code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

School Snack Planner is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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Platform	Vinkius Cloud for AI Agents
Endpoint	<code>https://edge.vinkius.com/{token}/mcp</code>

LICENSE & USAGE

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