

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

Lunchbox Portion Calculator MCP

Calculate exact meal requirements based on student attendance.

Lunchbox Portion Calculator MCP handles the math for school meal logistics. It translates student attendance schedules into precise food portion counts, helping you manage daily peaks and weekly totals without manual spreadsheets.

A+ Quality Score 100/100

school

meal-planning

portions

attendance

logistics



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.

Lunchbox Portion Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Managing school meals is a logistics puzzle where being off by even a few portions causes waste or shortages. This MCP solves that by connecting your AI client directly to your attendance data. Instead of manually counting how many kids are in on Tuesday versus Friday, you just give your agent the schedule. It calculates exactly how many portions you need to prepare to cover everyone. You can figure out total weekly needs for a whole group or drill down into what a specific child requires based on their individual attendance pattern. It also identifies peak demand days so you don't over-prepare on slow days or run out during high-attendance periods. It's a direct way to turn attendance lists into actionable kitchen prep lists.

Core Capabilities

01 — Weekly Totals

Your agent calculates the full week's food needs in one step.

02 — Peak Demand Detection

The AI identifies which specific days will require the most food based on attendance.

03 — Capacity Checks

You can check if your current food supply is enough to cover a specific group of students.

04 — Individual Tracking

The tool handles specific portion counts for individual students with unique schedules.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/lunchbox-portion-calculator — connect your AI agent in three steps.

- 01
- Connect your preferred MCP-compatible client to Vinkius.
- 02
- Provide your student attendance data or schedules to your AI agent.
- 03
- Ask the agent to calculate totals, peaks, or capacity.
- 04
- The agent uses the specific tools to run the math.
- 05
- Receive precise portion counts for your meal planning.

Connect your AI client to the Vinkius-hosted MCP and start asking questions about your meal requirements.

Built For

This MCP is built for school nutrition staff and educational logistics coordinators who need to turn attendance data into meal prep lists.

School Nutrition Manager

Hands off attendance schedules to the AI to generate weekly grocery or prep lists.

Cafeteria Coordinator

Uses the tool to check if current portion counts meet the daily student demand.

School Administrator

Requests capacity planning data to manage food budget and waste.

What Changes When You Connect

- 01
- Reduces food waste by matching portions to actual attendance.
- 02
- Eliminates manual math for complex weekly schedules.
- 03
- Prevents meal shortages by identifying peak daily requirements.

04 Provides instant capacity checks for limited food supplies.

Real-World Applications

Weekly Prep Planning

Calculate the total number of meals to prepare for the entire school week.

Daily Staffing

Use peak requirement data to decide how many staff members are needed in the kitchen on high-attendance days.

Budget Management

Determine how many students can be fed with a fixed amount of food to manage costs.

Individual Student Needs

Calculate specific portion needs for students with irregular attendance patterns.

Patterns to Avoid

Manual attendance tallying

❌ AVOID

You spend an hour every Sunday night counting student names on a spreadsheet to guess how many lunches to make.

✓ INSTEAD

Give your attendance schedule to your agent and use `get_weekly_portion_total` to get the exact count instantly.

Ignoring irregular schedules

❌ AVOID

You prepare the same amount of food every day, even though some students only eat on Tuesdays and Thursdays.

✓ INSTEAD

Use `get_child_specific_requirements` to account for students with non-standard attendance patterns.

Overestimating food supply

❌ AVOID

You assume your current pantry stock can cover the whole school without checking the actual student count.

✓ INSTEAD

Run `get_capacity_planning` to see if your current portions actually match the school schedule.

The Right Fit

School nutrition managers and cafeteria coordinators should connect this MCP if they manage meal prep based on student attendance. If your meal service is fixed-count and doesn't change based on daily attendance, you don't need this. The deciding factor is whether your attendance data fluctuates enough to cause food waste or shortages.

Lunchbox Portion Calculator: 4 Essential Tools

These tools convert student attendance schedules into precise meal counts and capacity forecasts.

#	TOOL	DESCRIPTION
01	get_capacity_planning	This tool calculates how many children you can feed if you have a set number of portions and a specific school schedule.
02	get_child_specific_requirements	This tool determines the exact number of portions a single child needs based on their personal attendance.
03	get_schedule_overlap_impact	This tool identifies the peak portion requirement for a single day by looking at the group schedule.
04	get_weekly_portion_total	This tool calculates the total food portions required for all children over a standard school week.

See It in Action

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

U How many portions do I need for 10 children attending school 5 days a week with a 10% buffer?



You will need 55 portions in total (50 base portions plus 5 buffer portions).

U If I have 20 portions available and each child attends 4 days a week, how many children can I feed?



You can fully support 5 children.

U What is the peak requirement for an attendance schedule of [5, 8, 3, 2, 4]?



The peak requirement is 8 portions, and the total weekly requirement is 22 portions.

Frequently Asked Questions

01 What AI clients can I use with this MCP?

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

02 Do I need to host the MCP myself?

No, Vinkius hosts and manages the MCP for you. You just connect and use it.

03 Can I calculate portions for just one student?

Yes, the tool includes a specific function to determine requirements for an individual child based on their attendance.

04 How does it handle peak days?

The tool analyzes the group schedule to find the day with the highest number of students, helping you prepare for peak demand.

05 Can I check if I have enough food for a group?

Yes, you can use the capacity planning tool to see how many children your current portions will cover.

06 How do I calculate the total portions for a whole week?

You can use the ``get_weekly_portion_total`` tool by providing the number of children, the days they attend, and an optional buffer percentage.

07 Can I plan for peak daily demand?

Yes, the ``get_schedule_overlap_impact`` tool allows you to input a daily attendance list to find the maximum portions needed on any single day.

08 How many children can I feed with a limited supply?

Use the ``get_capacity_planning`` tool to determine the maximum number of children supported by your available portions.

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>"lunchbox-portion-calculator": { "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

Lunchbox Portion Calculator 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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