

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

assignment-weighted-grade is a grading engine.

Get precise weighted grade calculations for any grading period.

assignment-weighted-grade handles the math behind weighted grading systems. Your AI client uses this MCP to determine how specific assignments impact final scores, verify that weight distributions are mathematically sound, and pull together performance summaries across multiple grading periods without manual calculation errors.

A+ Quality Score 100/100

grading

weighted-average

academic

calculation

performance



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.

assignment-weighted-grade MCP

4 tools available

Cloud-hosted on Vinkius

You can stop manually calculating weighted averages in spreadsheets. This MCP gives your AI client the math logic needed to handle complex academic or professional grading structures. Instead of guessing how a single quiz affects a final grade, you can ask your agent to run the numbers using specific weights. It handles the heavy lifting of verifying that your weight distributions actually add up to the correct total, preventing errors before they hit your gradebook. Whether you are looking at a single assignment's impact or need a high-level view of how performance has shifted over several grading periods, this tool provides the exact figures you need. It is built for accuracy in environments where every percentage point matters.

Core Capabilities

01 — Weighted Grade Calculation

Your agent calculates total grades for any set of assignments based on assigned weights.

02 — Weight Validation

The AI checks if your weight distributions are mathematically correct.

03 — Individual Impact Analysis

Your agent determines the specific point contribution of a single task.

04 — Performance Tracking

The AI pulls together summaries of performance across different timeframes.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/assignment-weighted-grade — connect your AI agent in three steps.

- 01 Connect your preferred MCP-compatible client to Vinkius.
- 02 The assignment-weighted-grade MCP becomes available in your agent's toolset.
- 03 Provide your assignment scores and weights to your agent.
- 04 The agent executes the necessary calculation tools to return precise results.

Connecting this MCP to your AI client gives your agent immediate access to grading math tools.

Built For

This MCP is designed for anyone managing structured grading systems in education or professional certification.

Educators

Teachers hand off assignment weights and scores to the AI to automate gradebook math.

Academic Administrators

Staff use the agent to verify weight distributions and pull performance summaries.

Corporate Trainers

Training leads use the tool to calculate final scores for professional certification programs.

What Changes When You Connect

- 01 Eliminates manual calculation errors in weighted grading.
- 02 Provides instant verification of weight distributions.

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- 03** Automates the process of determining individual assignment impact.
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- 04** Generates multi-period performance overviews quickly.
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Real-World Applications

Grading Period Totals

An instructor uses the agent to sum up all weighted scores at the end of a semester.

Weight Verification

A curriculum designer checks if a new syllabus weight distribution is mathematically valid.

Student Progress Reports

An administrator asks for a performance summary to see how a cohort is trending over time.

Single Task Impact

A student asks their agent how much a specific upcoming exam will change their final grade.

Patterns to Avoid

Manual Weight Calculation

❌ AVOID

You try to manually add up percentages in a chat window to see if your syllabus weights are correct.

✓ INSTEAD

Let the agent handle the math. Use ``validate_weight_distribution`` to confirm your weights are mathematically sound before you finalize the grading structure.

Guessing Grade Impact

❌ AVOID

You tell your agent that a midterm is worth 30 percent and ask if that's enough to pass.

✓ INSTEAD

Be specific about the assignment. Use ``get_assignment_contribution`` to find the exact point value a single task adds to the final grade.

Fragmented Performance Checks

❌ AVOID

You look at individual quiz scores one by one to try and figure out how a student is doing overall.

✓ INSTEAD

Get the big picture instantly. Use ``get_performance_summary`` to pull a high level overview of performance across different grading periods.

The Right Fit

Connect this MCP if you manage structured grading for schools or professional certifications where weight distributions must be perfect. Do not connect it if you only need simple, unweighted point totals. The decision depends on whether your grading system relies on specific percentage weights for different categories.



4 Tools for Precise Weighted Grade Management

These tools handle the math behind weighted grading, from validating weight distributions to calculating final period totals.

#	TOOL	DESCRIPTION
01	calculate_period_grade	This tool computes the total weighted grade for a full set of assignments within a single grading period.
02	get_assignment_contribution	Use this to find out exactly how many points a specific assignment adds to the final total grade.
03	get_performance_summary	This tool generates a high-level overview of performance across various grading periods.
04	validate_weight_distribution	This tool checks if a set of weights is mathematically valid for a specific grading period.

See It in Action

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

U How much does an assignment with a score of 80/100 and a weight of 0.2 contribute to the final grade?



The assignment contributes 16 points to the final grade.

U Calculate the total grade for assignments: {rawScore: 90, maxScore: 100, weight: 0.5} and {rawScore: 70, maxScore: 100, weight: 0.5}.



The final grade is 80.

U Are weights [0.3, 0.3, 0.3] valid for an expected total of 1.0?



No, the weights are not valid as they sum to 0.9, resulting in a variance of 0.1.

Frequently Asked Questions

01 What can this MCP calculate?

It calculates weighted period grades, individual assignment contributions, and performance summaries.

02 Can it check if my weights are correct?

Yes, it uses the `validate_weight_distribution` tool to ensure your weights are mathematically valid.

03 Which AI clients can use this?

You can use this with any MCP-compatible client like Claude, Cursor, or Windsurf.

04 Do I need to host the MCP myself?

No, Vinkius hosts and manages the MCP for you, so it is ready to use immediately.

05 How does it handle multiple grading periods?

The `get_performance_summary` tool allows your agent to look at performance across different periods.

06 How do I calculate a single assignment's impact?

You can use the ``get_assignment_contribution`` tool by providing the raw score, the maximum possible score, and the weight of the assignment.

07 Can I verify if my weights add up to 100%?

Yes, the ``validate_weight_distribution`` tool checks if a set of weights matches your expected total.

08 How do I get a summary of multiple grading periods?

Use the ``get_performance_summary`` tool to receive an overview including average, highest, and lowest grades.

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>"assignment-weighted-grade": { "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

assignment-weighted-grade 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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