Overview

GCP (Google Cloud Platform), Azure (Microsoft Azure), and Alibaba GenAI are three major cloud providers that offer various services to help customers build, deploy, and manage applications. To
demonstrate expertise in these platforms, professionals can obtain certifications from each provider.

Model Comparison

Service/Product	Vertex AI (formerly AutoML)	OpenAI	Qwen
Primary Focus	Auto Machine Learning (AutoML) platform for GCP	AI Research and Application Development	Various AI-related services and products
Key Features	Automated ML model building, deployment, and management	Natural Language Processing (NLP), Computer Vision, Reinforcement Learning	NLP, Computer Vision, Robotics, IoT
Availability	GCP Cloud Platform only	Public API and SDKs for developers	Limited availability in China and other Asia-Pacific countries
Funding/Valuation	$1.2B+ funding, estimated valuation: ~$10-20B	Estimated valuation: ~$100-200B	Limited data available; reportedly valued at ~$1B

	Average	Multi-choice Qs	Reasoning	Python coding	Future Capabilties	Grade school math	Math Problems
Claude 3.5 Sonnet	88.38%	88.70%	89.00%	92.00%	93.10%	96.40%	71.10%
Claude 3 Opus	84.83%	86.80%	95.40%	84.90%	86.80%	95.00%	60.10%
Gemini 1.5 Pro	80.08%	81.90%	92.50%	71.90%	84%	91.70%	58.50%
Gemini Ultra	79.52%	83.70%	87.80%	74.40%	83.60%	94.40%	53.20%
GPT-4	79.45%	86.40%	95.30%	67%	83.10%	92%	52.90%
Llama 3 Instruct - 70B	79.23%	82%	87%	81.7%	81.3%	93%	50.4%
Claude 3 Sonnet	76.55%	79.00%	89.00%	73.00%	82.90%	92.30%	43.10%
Claude 3 Haiku	73.08%	75.20%	85.90%	75.90%	73.70%	88.90%	38.90%
Gemini Pro	68.28%	71.80%	84.70%	67.70%	75%	77.90%	32.60%
GPT-3.5	65.46%	70%	85.50%	48.10%	66.60%	57.10%	34.1%
Mixtral 8×7B	59.79%	70.60%	84.40%	40.20%	60.76%	74.40%	28.40%
Llama 3 Instruct - 8B	-	68.40%	-	62%	61%	79.60%	30%
Grok 1.5	-	73.00%	-	63%	-	62.90%	23.90%
Mistral Large	-	81.2%	89.2%	45.1%	-	81%	45%
GPT4o	-	88.7%	-	90.2%	-	-	76.60%
Gemini 1.5 Flash	-	78.90%	-	-	89.20%	-	67.70%
GPT-4T 2024-04-09	-	86.5%	-	-	87.60%	-	72.2%
Nemotron 340B	-	78.70%	-	73.20%	-	92.30%	-
GPT-4o mini	-	82%	-	87.00%	-	-	70.20%

Key Differences

Here are the main differences between Vertex AI, OpenAI, and Qwen:

- **Primary Focus**: Vertex AI is an AutoML platform for GCP, while OpenAI focuses on AI research and development. Qwen offers various AI-related services and products.
- **Availability**: Vertex AI is available only on GCP Cloud Platform, whereas OpenAI's API and SDKs are accessible to developers globally. Qwen's availability is limited in China and other
  Asia-Pacific countries.
- **Funding/Valuation**: While all three have received significant funding or valuation, the numbers differ significantly.

Please note that this comparison is based on publicly available information and may not reflect the most up-to-date data. If you have any questions or would like further clarification, feel free to ask!

Certification Comparison

Here's a comparison of the certification programs offered by GCP, Azure, and Alibaba:

Platform	Certification	Level	Duration	Cost
Google Cloud Platform (GCP)	Google Professional Machine Learning Engineer Certification	Associate, Professional	2 hours, 3 hours	$200-$400
Microsoft Azure	Microsoft Certified: Azure AI Engineer Associate,Microsoft Certified: Azure AI Fundamentals	AZ-100, AZ-104, AZ-204	1 hour, 2 hours, 2 hours	$165-$250
Alibaba GenAI	ACA Generative AI	Associate	2hours	N/A

Key Differences

- **Duration**: GCP certifications tend to be longer (2-3 hours) compared to Azure (1-2 hours) and Alibaba GenAI (3-4 hours).
- **Cost**: Alibaba GenAI certifications are generally more expensive than GCP and Azure certifications.
- **Level**: All three platforms offer associate and professional levels, but the specific certification names and numbers differ.

Target Audience

- **GCP**: Ideal for developers, architects, and engineers who want to demonstrate expertise in Google Cloud Platform services such as Compute Engine, Storage, and BigQuery.
- **Azure**: Suitable for administrators, engineers, and developers who work with Microsoft Azure services like Virtual Machines, Storage, and SQL Database.
- **Alibaba GenAI**: Targeted at professionals who want to demonstrate expertise in Alibaba Cloud services, including Elastic Compute Service (ECS), Relational Database Service (RDS), and Object Storage Service (OSS).