AI Datacenter Business Simulator: Key Assumptions

This table summarizes the core assumptions used in the financial model, based on the config.yml file and market analysis. All figures are based on the default **100MW datacenter** scenario.

Category	Item	Value	Source & Rationale	Assessment
User Base	Free Users	600,000 Users	Based on typical freemium models (e.g., Poe, Perplexity) with a 60% free tier.	Neutral
	Standard Users	300,000 Users	Assumes ~30% of total users are in the paid tier, referencing market estimates for services like ChatGPT Plus.	Slightly Optimistic
	Premium Users	100,000 Users	Assumes 10% of total users are in a high-tier plan (Team/Enterprise).	Slightly Optimistic
User Activity	Monthly Usage (Free)	500,000 tokens	Estimated average for free users, focusing on short Q&A and writing tasks.	Conservative
	Monthly Usage (Standard)	5,000,000 tokens	Estimated average for Plus-tier users (e.g., GPT-4), assuming several interactions per day.	Neutral

	Monthly Usage (Premium)	25,000,000 tokens	Assumes high-frequency use cases, such as team collaboration or API-intensive tasks.	Somewhat Optimistic
Financials	Market Price (Revenue)	$1.50 / 1M tokens	Based on the config.yml setting, analogous to market API pricing.	Realistic
	SG&A Ratio	15% of Revenue	Aligns with the average for typical SaaS companies.	Realistic
Depreciation	Datacenter (Annual)	$25,000,000	Based on a $1B construction cost for a 100MW DC, amortized over 40 years.	Conservative
	IT Hardware (Annual)	$250,000,000	Based on a $1.25B server budget for a 100MW DC, amortized over 5 years.	Conservative
	R&D (Annual)	$33,333,333	Assumes a $2B total model development cost allocated across 20 datacenters, amortized over 3 years.	Realistic