# Table of Contents

# 1. Data Sources

*Table 1: Access Date for Data Sources*

| Iteration/Phase | Scope | Access date of data sources used |
|---|---|---|
| Conceptual-to-empirical phase (C2E) | 19 sources for four cases used in all three C2E iterations (C2E-1 to C2E-3) | May 12 2025 |
| Empirical-to-conceptual phase (E2C) | 117 sources for 16 cases used in all four E2C iterations (E2C-1 to E2C-4) | May 20 2025 |
| Taxonomy analysis | 42 sources for four cases used in Taxonomy Analysis phase | June 30 2025 |

*Table 2: Overview of data sources for sampled cases*

| Iteration | Platform (Case ID) | Data Source Type | Data Source | Data Source (ID) |
|---|---|---|---|---|
| **C2E-1/ C2E-2/ C2E-3** | Superb AI Suite | website | https://superb-ai.com/<br>https://superb-ai.com/en/pricing | 2a<br>2b |
| | | case studies | https://superb-ai.com/en/resources/blog/ktwiz | 2c |
| | | external publications | https://aimresearch.co/market-industry/superb-ai-secures-10-2m-funding-to-realize-their-vision-of-transforming-data-labeling-for-ai | 2d |
| | HyperSense | website | https://hypersense.subex.com/ai-orchestration-platform/<br>https://hypersense.subex.com/ai-resource-center/ | 8a<br>8b |
| | | case studies | Not relevant sources found | |
| | | external publications | Not relevant sources found | |
| | Snowflake | website | https://www.snowflake.com/<br>https://www.snowflake.com/en/pricing-options/<br>https://www.snowflake.com/wp-content/uploads/2023/12/The-Simple-Guide-to-Snowflake-Pricing.pdf<br>https://other-docs.snowflake.com/en/collaboration/consumer-listings-paying<br>https://www.snowflake.com/use-cases/modern-data-sharing/data-sharing-rebate-program/ | 13a<br>13b<br>13c<br>13d<br>13e |
| | | case studies | https://www.snowflake.com/thankyou/the-essential-guide-to-cloud-ai-and-data-platforms/ | 13f |

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|---|---|---|---|---|
| | | external publications | https://www.forbes.com/sites/kolawolesamueladebayo/2025/04/16/snowflake-ceo-says-ai-roi-starts-with-getting-the-data-right/ | 13g |
| | IBM Watson Studio | website | https://www.ibm.com/products/watsonx-ai/ | 20a |
| | | | https://www.ibm.com/new/announcements/ibm-named-a-leader-in-the-2024-gartner-magic-quadrant-for-data-and-analytics-governance-platforms | 20b |
| | | case studies | https://www.ibm.com/case-studies/natwest-group-watson | 20c |
| | | external publications | https://www.forbes.com/sites/moorinsights/2025/05/07/ibm-think-2025-showcases-watsonxdatas-role-in-generative-ai/ | 20d |
| | | | https://www.gartner.com/reviews/market/data-science-and-machine-learning-platforms/vendor/ibm/product/ibm-watsonx | 20e |
| | | | https://www.altexsoft.com/blog/comparing-machine-learning-as-a-service-amazon-microsoft-azure-google-cloud-ai-ibm-watson/ | 20f |
| E2C-1 | Barbara | website | https://www.barbara.tech/ | 1a |
| | | | https://www.barbara.tech/find-a-system-integrator | 1b |
| | | | https://www.barbara.tech/edge-ai-platform | 1c |
| | | | https://www.barbara.tech/technology | 1d |
| | | | https://www.barbara.tech/pricing | 1e |
| | | case studies | https://www.barbara.tech/ebooks | 1f |
| | | external publications | https://gohub.vc/barbara-raises-funding/ | 1g |
| | | | https://www.einpresswire.com/article/752842235/barbara-to-equip-iberdrola-with-edge-computing-firmware-for-secondary-substation | 1h |
| | Amazon SageMaker | website | https://aws.amazon.com/sagemaker/pricing/ | 10a |
| | | | https://aws.amazon.com/blogs/ | 10b |
| | | | https://aws.amazon.com/sagemaker/ | 10c |
| | | | https://docs.aws.amazon.com/sagemaker/ | 10d |
| | | case studies | https://pages.awscloud.com/rs/112-TZM-766/images/Amazon_SageMaker_TCO_uf.pdf | 10e |
| | | external publications | https://www.forbes.com/sites/janakirammsv/2024/12/16/aws-reinvent-2024-balancing-cloud-infrastructure-and-ai-ambitions/ | 10f |
| | Domino Data Lab | website | https://domino.ai/ | 14a |
| | | | https://domino.ai/platform | 14b |
| | | | https://domino.ai/pricing | 14c |
| | | | https://university.domino.ai/ | 14d |
| | | case studies | Not relevant sources found | |

| | | | | |
|---|---|---|---|---|
| | | external publications | https://blogs.vultr.com/vultr-domino-data-lab-partnership | 14e |
| | Dataiku | website | https://www.dataiku.com/product/<br>https://www.dataiku.com/partners/<br>https://www.dataiku.com/product/key-capabilities/<br>https://www.dataiku.com/product/plugins/<br>https://pages.dataiku.com/dataiku-data-sheet | 18a<br>18b<br>18c<br>18d<br>18e |
| | | case studies | Not relevant sources found | |
| | | external publications | https://www.forbes.com/sites/kenrickcai/2020/08/24/dataiku-ai-enablement-for-enterprises-startup-raises-100-million-series-d/ | 18f |
| E2C-2 | Modular | website | https://www.modular.com/<br>https://docs.modular.com/<br>https://builds.modular.com/<br>https://www.modular.com/blog<br>https://www.modular.com/community | 3a<br>3b<br>3c<br>3d<br>3e |
| | | case studies | Not relevant sources found | |
| | | external publications | Not relevant sources found | |
| | codeocean | website | https://codeocean.com/product<br>https://codeocean.com/solutions<br>https://docs.codeocean.com/<br>https://codeocean.com/explore?page=1&filter=all | 9a<br>9b<br>9c<br>9d |
| | | case studies | https://codeocean.com/resources#widget_1711448700536case-study | 9e |
| | | external publications | https://librarytechnology.org/pr/29449<br>https://techcrunch.com/2021/05/17/with-21m-in-funding-code-ocean-aims-to-help-researchers-replicate-data-heavy-science/ | 9f<br>9g |
| | Databricks Mosaic AI | website | https://www.databricks.com/<br>https://www.databricks.com/product/pricing<br>https://www.databricks.com/company/partners | 17a<br>17b<br>17c |
| | | case studies | https://www.chaossearch.io/blog/mosaic-ai-use-cases | 17d |
| | | external publications | https://the-ml-engineer-guy.medium.com/databricks-mosaic-ai-building-genai-solutions-with-databricks-3da19fab2527 | 17e |

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|---|---|---|---|---|---|
| | ZAM | website | https://www.zams.com/pricing | 24a |
| | | | https://www.zams.com/product | 24b |
| | | | https://www.zams.com/integrations | 24c |
| | | case studies | https://www.zams.com/customers/intouchcx-reduced-employee-churn-by-15-with-zams | 24d |
| | | external publications | https://serp.ai/products/obviously.ai/reviews/ | 24f |
| E2C-3 | dataloop | website | https://dataloop.ai/ | 4a |
| | | | https://dataloop.ai/platform/ | 4b |
| | | | https://dataloop.ai/partners/ | 4c |
| | | | https://docs.dataloop.ai/docs | 4d |
| | | | https://github.com/dataloop-ai-apps | 4e |
| | | case studies | https://dataloop.ai/case-studies/dataloop-enhances-anomaly-detection-with-flexible-data-pipelines-odysight-case-study/ | 4f |
| | | external publications | https://techcrunch.com/2022/11/03/dataloop-secures-cash-infusion-to-expand-its-data-annotation-toolset/ | 4g |
| | Iguazio | website | https://www.iguazio.com/ | 16a |
| | | | https://www.iguazio.com/platform/ | 16b |
| | | | https://www.iguazio.com/open-source/ | 16c |
| | | | https://www.iguazio.com/partners/ | 16d |
| | | case studies | https://go.iguazio.com/hubfs/AzureML%20+%20Iguazio%20FS.pdf | 16e |
| | | external publications | https://techcrunch.com/2023/01/23/mckinsey-eyeing-the-mlops-space-buys-tel-aviv-based-iguazio/ | 16f |
| | Google Vertex AI | website | https://cloud.google.com/ai | 19a |
| | | | https://cloud.google.com/vertex-ai | 19b |
| | | | https://cloud.google.com/vertex-ai/docs | 19c |
| | | | https://cloud.google.com/vertex-ai/pricing | 19d |
| | | | https://cloud.google.com/marketplace | 19e |
| | | | https://cloud.google.com/partners | 19f |
| | | | https://cloud.google.com/learn/certification | 19g |
| | | | https://cloud.google.com/free | 19h |
| | | | https://cloud.google.com/partners | 19i |
| | | case studies | https://cloud.google.com/transform/101-real-world-generative-ai-use-cases-from-industry-leaders | 19j |

| | | | | |
|---|---|---|---|---|
| | | external publications | https://techcrunch.com/2025/03/17/google-adds-its-hd-voice-model-chirp-3-to-its-vertex-ai-platform/ | 19k |
| | PrimeHub | website | https://www.primehub.io/ | 7a |
| | | | https://www.primehub.io/primehub-ai-platform | 7b |
| | | | https://www.primehub.io/partners | 7c |
| | | | https://www.primehub.io/community | 7d |
| | | case studies | Not relevant sources found | |
| | | external publications | https://techcrunch.com/2021/04/05/taiwan-based-mlops-startup-infuseai-raises-4-3m-series-a-led-by-wistron-corporation/ | 7e |
| E2C-4 | BigML | website | https://bigml.com/ | 5a |
| | | | https://bigml.com/features | 5b |
| | | | https://bigml.com/certifications | 5c |
| | | | https://bigml.com/pricing | 5d |
| | | | https://bigml.com/education/ | 5e |
| | | | https://support.bigml.com/hc/en-us | 5f |
| | | | https://bigml.com/gallery/ | 5g |
| | | | https://bigml.com/partners/ | 5h |
| | | | https://bigml.com/customers/ | 5i |
| | | case studies | https://medium.com/@daksharora771/getting-a-deep-dive-into-bigml-99a8c83cf420 | 5j |
| | | | https://machinelearningmastery.com/bigml-review-discover-the-clever-features-in-this-machine-learning-as-a-service-platform/ | 5k |
| | | external publications | https://www.cbinsights.com/company/bigml | 5l |
| | Microsoft Azure AI | website | https://azure.microsoft.com/en-us/solutions/ai | 11a |
| | | | https://azure.microsoft.com/en-us/pricing/ | 11b |
| | | | https://azure.microsoft.com/en-us/marketplace/ | 11c |
| | | | https://azure.microsoft.com/en-us/partners/ | 11d |
| | | | https://azure.microsoft.com/en-us/resources/events/ | 11e |
| | | | https://azure.microsoft.com/en-us/resources/developers/ | 11f |
| | | case studies | https://www.actumdigital.com/technologies/microsoft/microsoft-responsible-ai/microsoft-ai-case-studies-No2 | 11g |
| | | | https://www.proserveit.com/blog/microsoft-ai-artificial-intelligence-solutions | 11h |

| | | external publications | https://tei.forrester.com/go/Microsoft/AzureAI-Readiness/docs/The_Total_Economic_Impact_Of_Migrating_To_Microsoft_Azure_For_AI-Readiness.pdf | 11i |
|---|---|---|---|---|
| | DataRobot | website | https://www.datarobot.com/ | 22a |
| | | | https://www.datarobot.com/product/predictive-ai/ | 22b |
| | | | https://www.datarobot.com/product/generative-ai/ | 22c |
| | | | https://www.datarobot.com/product/covalent/ | 22d |
| | | | https://www.datarobot.com/integrations/ | 22e |
| | | | https://www.datarobot.com/trial/ | 22f |
| | | | https://www.datarobot.com/partner-finder/ | 22g |
| | | | https://docs.datarobot.com/en/docs/index.html | 22h |
| | | | https://learn.datarobot.com/ | 22i |
| | | case studies | https://bbi.ai/unlocking-the-power-of-automated-machine-learning-supercharging-business-insights-with-datarobot/ | 22j |
| | | | https://www.datarobot.com/resources/ml-model-monitoring-with-datarobot-and-aws/ | 22k |
| | | external publications | https://www.datarobot.com/newsroom/press/datarobot-named-a-leader-in-ai-ml-platforms-by-independent-research-firm/ | 22l |
| | VESSL AI | website | https://vessl.ai/ | 23a |
| | | | https://vessl.ai/pricing | 23b |
| | | | https://vesslai.notion.site/VESSL-for-Academics-fa47bf5e69b44e92b5daaead758cb057 | 23c |
| | | | https://docs.vessl.ai/guides/resources/pricing | 23d |
| | | | https://app.vessl.ai/hub | 23e |
| | | case studies | https://cloud.google.com/blog/topics/startups/how-vessl-ai-accelerates-mlops-transformation-with-google-cloud/ | 23f |
| | | | https://cerebralvalley.ai/blog/vessl-ai-building-the-future-of-ai-agents-and-scalable-mlops-6WgZXy97qniPciCoVObx8b | 23g |
| | | external publications | https://techcrunch.com/2024/10/07/vessl-ai-secures-12m-for-its-mlops-platform/ | 23h |
| **Taxonomy Analysis phase** | Alibaba ML platform for AI | website | https://www.alibabacloud.com/en/product/machine-learning?_p_lc=1 | 6a |
| | | | https://www.alibabacloud.com/help/en/pai/ | 6b |
| | | | https://www.alibabacloud.com/help/en/pai/ai-computing-resource-billing-description?spm=a2c63.p38356.help-menu-30347.d_1_0.452c1482LPe8VR | 6c |
| | | | | 6d |

| | | | https://edu.alibabacloud.com/learningpath/ai_learning_path?spm=a2796.11222794.8831073830.2.2b0727a2J5LaTF | 6e |
| | | | https://edu.alibabacloud.com/trainingpartner?spm=a3c0i.22937016.4363105600.28.5b7417edki8Php | 6f |
| | | | https://edu.alibabacloud.com/certification/professional?spm=a3c0i.22937016.4363105600.13.5b7417edki8Php | 6g |
| | | | https://edu.alibabacloud.com/training?spm=a3c0i.22937016.4363105600.4.5b7417edki8Php | 6h |
| | | | https://marketplace.alibabacloud.com/?spm=a2796.11222794.9135018350.22.2b0727a2J5LaTF | |
| | | case studies | https://docs-aliyun.cn-hangzhou.oss.aliyun-inc.com/pdf/machine-learning-Introduction_intl_eng-intl-en-2019-04-24.pdf | 6i |
| | | external publications | https://markets-ft-com.tudelft.idm.oclc.org/data/announce/full?dockey=600-202504080300DGAP_____ASPR_____corporate_2112986_en-1 | 6j |
| | Jfrog ML | website | https://jfrog.com/jfrog-ml/ | 12a |
| | | | https://jfrog.com/pricing/ | 12b |
| | | | https://jfrog.com/jfrog-ml/mlops/ | 12c |
| | | | https://jfrog.com/partners/ | 12d |
| | | | https://jfrog.com/integrations/ | 12e |
| | | | https://jfrog.com/resource-center/?solution=all | 12f |
| | | | https://jfrog.com/certification/ | 12g |
| | | | https://jfrog.com/webinar/ | 12h |
| | | case studies | https://jfrog.com/blog/get-to-know-jfrog-ml/ | 12i |
| | | external publications | https://www.sdxcentral.com/news/jfrog-introduces-jfrog-ml-an-mlops-solution-for-ai-application-delivery/ | 12j |
| | | | https://finance.yahoo.com/news/jfrog-partners-nvidia-accelerate-agentic-060000371.html | 12k |
| | H2O.ai | website | https://h2o.ai/ | 15a |
| | | | https://h2o.ai/platform/why-h2o/ | 15b |
| | | | https://h2o.ai/platform/ai-cloud/ | 15c |
| | | | https://h2o.ai/platform/llm-studio/ | 15d |
| | | | https://h2o.ai/platform/ai-cloud/operate/h2o-mlops/ | 15e |
| | | | https://h2o.ai/platform/ai-cloud/key-features-datasheet/#innovate | 15f |
| | | | https://h2o.ai/solutions/use-case/ | 15g |
| | | | https://h2o.ai/partner-network/#become-a-partner | 15h |
| | | | https://h2o.ai/university/ | 15i |

| | | case studies | No relevant sources found | |
|---|---|---|---|---|
| | | external publications | https://venturebeat.com/ai/h19-ai-improves-ai-agent-accuracy-with-predictive-models/ | 15j |
| | Cloudera AI | website | https://www.cloudera.com/products/machine-learning.html | 21a |
| | | | https://cloudera.github.io/Applied-ML-Prototypes/#/cloudera | 21b |
| | | | https://www.cloudera.com/services-and-support/training/certification.html | 21c |
| | | | https://www.cloudera.com/partners/partners-listing.html | 21d |
| | | | https://www.cloudera.com/services-and-support/training.html | 21e |
| | | | https://www.cloudera.com/products/cloudera-public-cloud-trial.html | 21f |
| | | | https://docs.cloudera.com/machine-learning/cloud/index.html | 21g |
| | | | https://www.cloudera.com/resources.html | 21h |
| | | | https://www.cloudera.com/services-and-support/professional-services.html | 21i |
| | | | https://www.cloudera.com/why-cloudera/enterprise-ai.html | 21j |
| | | case studies/whitepaper | https://www.cloudera.com/content/dam/www/marketing/resources/ebooks/reaching-the-full-potential-of-production-machine-learning.pdf?daqp=true | 21k |
| | | external publications | No relevant sources found | |

# 2. Case Codebooks

## 2.1 Evaluation of conceptual-to-empirical iterations (C2E-1, C2E-2, C2E-3)

### 2.1.1 Superb AI Suite's Codebook

*Table 3: Superb AI Suite's codebook*

| Dimension | Axial Codes | Open codes |
|---|---|---|
| complementary resources | tools | productivity tools/ Multi-factor authentication (MFA)/ IP-whitelisting tool/ AI project execution & operation/ synthesize data |
| complementary services | consultation | consulting/ vulnerability assessment/ data migration services/ hardware setup/ collaboration |
| | model customization | custom model/ project design and model development to full-scale deployment |
| core VP | customizability | a custom model |
| | optimization | reduced by 76%/ shortened by 64% |
| | automation | automatically curate data/ automated data labelling |
| | insight generation | automatically classify defects in pipe welding |
| | continuous learning | iterative retraining |
| costs | tangible | AI experts |
| customer relationships | customer support | customer support |
| customer Segments | B2B | industry specific |
| data strategy | customer-supplied (on-demand) | process and search massive volumes of field data |
| | customer-supplied (continuous) | live field data/ real-time video streams |
| data type | numeric/sensor data | point cloud data |
| | visual data | image and videos |
| industry focus | industry specific | industry specific |
| interface | graphical | with a few clicks |
| ML hosting | cloud | cloud/ superb cloud/ integrate cloud environment with platform seamlessly |
| | edge | real-time AI processing in production lines & industrial sites/ superb edge/ offline environment or high security settings/ no power supply |
| | on-premise | on premise/ various environments such as air-gapped networks/ private cloud (VPC) |

| | | |
|---|---|---|
| ML lifecycle activities | data processing | data cleaning/ curation/ labelling |
| ML scope | context changing | detect defects |
| ML service model | model development, deployment and ready to use services | end-to-end services/ everything from project design and model development to full-scale deployment/ Train, diagnose, deploy AI models |
| partnerships | technology partners | NVIDIA |
| | investors | backed by Ycombinator |
| pricing model | free of charge | start for free |
| revenue streams | operation outsourcing | execution of operations |
| | education | AI capability building/ workshops/ training |

## 2.1.2 HyperSense's Codebook

*Table 4: HyperSense's codebook*

| Dimension | Axial Codes | Open Codes |
|---|---|---|
| assets | computing architecture | distributed computing |
| complementary resources | ML operations | ML operation/model management/ model explainability |
| complementary services | governance/collaboration | governance/ collaboration |
| core VP | automation | autoML/ automate |
| | adaptability | large datasets that are changing |
| | cost saving | high cost |
| costs | computing architecture | distributed computing |
| | specialized expertise | AI experts |
| customer relationships | portals | AI resource center |
| data strategy | streaming data | batches/ microbatches data |
| | real-time streaming data | real time/ streaming data |
| data type | textual data | binary/ ascii/ CSV/ ASN.1/ and JSON data. |
| industry focus | industry specific | banking/ insurance/ telco |
| infrastructure support | hybrid cloud | hybrid  (public/private cloud) |
| interface | graphical | 360 degree view/ no-code |
| | API | API |
| ML lifecycle activities | data processing | Collect data/ structure data/ prepare data/ Integrate multiple data formats |
| | model building | build AI model |
| | model training | iterative machine learning lifecycles |
| | model testing | testing/ iterative machine learning lifecycles/ Identify bias in machine learning models |
| | monitoring | ML operations |
| | retraining | relearn model/ iterative machine learning lifecycles |

| partnerships | technology partners | jio platform limited/ snowflake |
|---|---|---|
| pricing model | free trial | try for free |
| revenue stream | education | certification |

## 2.1.3 Snowflake's Codebook

*Table 5: Snowflake's codebook*

| Dimension | Axial Codes | Open Codes |
|---|---|---|
| assets | infrastructure | database/ interoperable storage/ data/content |
| complementary resources | marketplace/copilot | model repository/ Snowflake Marketplace/ copilot/ cloud services (governance/ security/ maintenance) |
| complementary services | consulting/automation | consultation/ machine learning automation |
| core VP | simplification | easy to use |
| | optimization | Improve performance and scalability/ distributed hyperparameter optimization. |
| | automation | automate performance and maintenance tuning |
| | insight generation | continuous/ automated refreshes on batch or streaming data |
| | adaptability | launch projects and products faster/ scalable |
| | cost saving | cost savings gained/ cost effective |
| | continuous learning | continuous/ automated refreshes on batch or streaming data |
| costs | infrastructure costs | compute and storage resources/ data center architecture/ hardware/infrastructure costs |
| customer relationships | portals | online knowledge base |
| | communities | snowflake community |
| | customer support | premier support |
| customer segments | B2B | all organizations |
| data strategy | third party | third party data |
| | on demand | continuous micro-batch loading |
| | streaming/continous | streaming data |
| data type | textural/ document data | delimited flat files (CSV/ TSV/ etc.)/ semi-structured data files (JSON/ Avro/ ORC/ Parquet/ and XML). |
| | mixed | structured & unstructured data |
| industry focus | industry unspecific | all customers/ all organizations across industries and regions |
| infrastructure | compute | elastic compute/ multi-cluster compute |
| | private connectivity | access to private connectivity |
| | backup and disaster recovery | failover and failback |
| Infrastructure support | cloud | Google Cloud/ MS Azure/ Amazon AWS |

| | | |
|---|---|---|
| integrated complementor | selected complementors | Google Cloud/ MS Azure/ Amazon AWS |
| interface | graphical | centralized UI. |
| | code-based | notebook |
| | API | Python APIs |
| ML lifecycle activities | data processing | bulk loading |
| | model building | develop models/ model development and inference |
| | model training | train models/ feature engineering/ model training |
| | model validation | model analysis |
| | model monitoring | monitor performance metrics |
| ML scope | predictive ML | generating predictions |
| | generative ML | generating content/ LLMs |
| ML service model | model development & deployment with ready to use services | popular machine learning frameworks/ LLMs via APIs/ |
| partnerships | technology partners | Google Cloud/ MS Azure/ Amazon AWS |
| | OEM partners | openAI |
| | software vendors | 3rd-party tools and technologies/ SaaS providers |
| | data broker | data provider/ data marketplace |
| | system integrators | solution partnerts/ Certified partners/ partner network |
| pricing model | consumption-based pricing | pay as you go pricing/ flexible usage-based monetization models |
| | regularly based on fixed rates | lower software licensing fees |
| revenue streams | subscription | lower software licensing fees/ subscription-based monetization models. |
| | transaction | pay as you go pricing |
| | advertising | pay for listing |
| | cloud infrastructure consumption | on-demand storage/ security/ governance/ |
| | education | bootcamp/ academy/ builder education |
| | profit-sharing | credit rebate/ rebate programe with data sharing |

## 2.1.4 IBM Watsonx.ai's Codebook

*Table 6: IBM Watsonx.ai's codebook*

| **Dimension** | **Axial Codes** | **Open Codes** |
|---|---|---|
| assets | expertise/vision/roadmap | services expertise/ Product roadmap and future vision |
| complementary resources | marketplace | Foundation Models library /find a  partner |
| | models/governance | built in models/ data governance |
| complementary services | consulting/ enabling collaboration/ model evaluation | collaboratively work/ consulting service/ Evaluate model output/ model explainability |

| | | |
|---|---|---|
| core VP | simplification | in an easy way/ Streamline |
| | customizability | customize them / custom machine learning models |
| | optimization | advanced tuning methods |
| | automation | automating tasks/ Refined IBM AutoAI |
| | insight generation | data analysis and prediction/ cognitive service |
| | adaptability | scale-out systems |
| | cost saving | Reduce time to market |
| costs | acquisition cost | acquisition/ purchasing several startup |
| customer relationships | communities | user community |
| | customer support | tech support/ chatbot |
| data strategy | third party sources | third-party data services |
| | customer data | their data |
| | customer streaming data | the flowing data/ |
| data type | textural/ document data | unstructured data |
| | natural language data | natural language processing |
| | visual data | video content analysis capabilities/ visual recognition/ |
| industry focus | all industries | cross industry |
| infrastructure | private connectivity | securely connect to their data/ connect to array of data sources |
| Infrastructure support | cloud | Cloud/ cloud solutions |
| | on-premise | in SaaS and on-premises configurations/ private cloud solutions/ data on--premise |
| | hybrid configuration | on-premises/ offline or in the cloud/ hybrid cloud platform |
| integrated complementor | selected vendors/ partners | selected vendors/ partners |
| interface | graphical | Clean interface/ user-friendly interfaces |
| | SDKs | industry-standard SDKs. |
| | APIs | API key/ industry-standard APIs |
| ML lifecycle activities | data processing | Data preparation/ data preprocessing/ data security |
| | model building | building AI models |
| | model training | training AI models |
| | model monitoring | profiling/ cleansing and monitoring |
| ML scope | predictive | video content analysis capabilities/ cognitive service |
| | text generation | generate/ summarize/ and extract meaning |
| ML service model | model development & deployment with ready to use services | Build machine learning models/ develop foundation models /  manage the AI lifecycle to train/ validate and deploy AI models |
| partnerships | technology partners | innovative companies and strategic partners/ hugging face/ technology partnres |
| | model providers | Deepseek/ model providers/ meta |

| | | |
|---|---|---|
| | software vendors | solutions partner/vector databases / embedding services |
| | data broker | third-party data services |
| | academic/research institutions | MIT-IBM Watson AI Lab |
| | system integrators | ISV/ leading ISV offerings/ |
| pricing model | consumption-based pricing | Pay-as-you-go/ Model hosting/Deploy on demand<br>Per hour |
| | regularly based on variable rates | model hosting/ deploy/ token based/ credit/ Use case specific pricing |
| | free trial | start your free trial |
| revenue streams | subscription | Starting at USD 1050/month* |
| | transaction | pay as you go |
| | partnership programs | partner plus/find a partner |
| | cloud infrastructure consumption | Model hosting/Deploy on demand |
| | education | courses |

## 2.2 First empirical-to-conceptual iteration (E2C-1)

### 2.2.1 Barbara

*Table 7: Barbara's codebook*

| Dimension | Characteristic | Axial Codes | Open Codes |
|---|---|---|---|
| Complementary resources | Ecosystem | Pre-built app library/ partner integrations | Marketplace partners/ iot platform connectivity |
| Complementary services | Governance & compliance | Embedded security/ regulatory adherence | Cybersecure edge platform/ ISO 27001 certification |
| | Specialized expertise | Legacy system integration/ protocol support | IT/OT convergence out-of-the-box/ industrial connectors (OPC UA/ Lorawan) |
| Core VP | Efficiency | Cost savings/ rapid scaling | From poc to prod in few clicks/ reduce operating costs via real-time automation |
| Costs | Intangible | Compliance upkeep/ grant-funded innovation | Cybersecurity R&D/ EU Horizon 2020 funding |
| Customer relationships | Customer support | Onboarding education/ enterprise slas | Academy (quickstart/deep dive)/ dedicated experts |
| | Communities | Peer validation/ vertical case studies | Testimonials (EDP/Acciona)/ success stories |
| Data strategy | Customer-supplied (continuous) | Streaming analytics/ legacy data ingestion | Real-time data processing/ smart grid asset digitization |
| Industry focus | Industry-specific | Utilities focus/ industrial IoT (IIoT) | Smart grid/ water management/ energy (Solarig/Iberdrola) |
| Infrastructure | Hybrid | Cross-platform compatibility/ hybrid infrastructure | ARM/Intel/GPU support/ heterogeneous device management |

| | Compute | Ai-optimized hardware/ multi-layered deployment/edge-cloud split/ multi-cloud support | GPU-enabled AIoT/ distributed edge/cloud nodes/data processing (edge/cloud hybrid)/ AWS/Azure compatibility |
|---|---|---|---|
| Interface | Graphical | Unified dashboard/ bulk automation | Single-screen management/ batch operations UI |
| | APIs | Branding flexibility/ ERP/CRM integration | Rest api for business integration/ white-labeling |
| | Marketplace | Revenue sharing/ premium certified solutions | Industry-certified apps (e.g., iec 104)/ marketplace partnerships |
| ML lifecycle activities | Monitoring | Predictive maintenance/ anomaly detection | Real-time asset monitoring/ telemetry & analytics |
| | Validation | Third-party validation/ reduced customization | Certified edge apps/ industry-approved solutions (e.g./ IEC 104) |
| ML service model | Model deployment service | Edge-native deployment/ mass scalability | Deploy ai models... Effortlessly/ orchestrate edge apps at scale |
| Partnerships | Research institutions | Collaborative R&D/ open innovation | EU Horizon 2020/ Basque country funding |
| | Technology partners | Co-branded solutions | AWS/Azure |
| | Independent software vendors | Ecosystem expansion | Global Omnium/ Ormazabal |
| Pricing model | Tiered pricing | Subscription tiers/ custom quotes | Edge-as-a-service/ enterprise demo requests |

## 2.2.2 Amazon Sagemaker

*Table 8: Amazon Sagemaker's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| Complementary Resources | Integrated AI Assistant | AI-driven productivity tools embedded in workflows | Amazon Q Developer for generative AI assistance |
| | Tools/ Ecosystem/ Prebuilt Models | Pre-trained models/ open-source integrations/ developer tools | SageMaker JumpStart/ Apache Iceberg-compatible tools |
| Complementary Services | Automation/ Governance & Compliance | Automated pipelines/ built-in security/compliance controls | Automate machine learning workflows/ End-to-end data and AI governance |
| Core VP | Efficiency/ Adaptability/ Accessibility | Streamlined workflows/ unified data access/ AI-assisted development | Accelerate analytics and AI innovation/ Unified access to all your data |
| Costs | Tangible (compute/storage) | Infrastructure and operational expenses | Trainium chip costs/ S3 storage fees |

| | | | |
|---|---|---|---|
| Customer Relationships | Communities/ Customer Support | AI-driven support/ community-driven knowledge sharing | AWS re:Post forums/ Amazon Q Developer assistant |
| Data Strategy | Customer-supplied (continuous) | Continuous data ingestion with zero-ETL integrations | Unify data access across S3/ Redshift/ third-party sources |
| Industry Focus | Industry-unspecific | Cross-industry applicability | Retail/ healthcare/ automotive use cases |
| Infrastructure | Compute/ Cloud Storage | Custom silicon for AI/ scalable cloud storage | Trainium 2 chips/ Amazon S3 storage |
| Interface | Graphical/ APIs/ SDKs | Unified IDE/ multi-language SDK support | SageMaker Studio UI/ AWS SDK for Python |
| ML Lifecycle Activities | Data processing/ Training/ Monitoring | End-to-end lifecycle support from data prep to production monitoring | Data preparation/ Model training/ Model monitoring |
| ML Scope | Content changing | Dynamic model adaptation for diverse data inputs | Train recommendation engines/ AI chatbots |
| ML Service Model | Model development & deployment service with ready-to-use services | Integrated end-to-end machine learning lifecycle management with pre-built solutions | Build/ train/ and deploy machine learning and FMs with fully managed infrastructure/ tools/ and workflows |
| Model Hosting | Cloud | Fully cloud-based hosting with scalable infrastructure | Fully managed infrastructure/ Deploy machine learning models for inference |
| Partnerships | Technology Partners/ ISVs | Ecosystem partnerships for model/library integrations | Hugging Face collaboration/ Salesforce integrations |
| Pricing Model | Usage-based pricing/ Tiered pricing/ Free Tier | Flexible pricing with free tier for experimentation | Pay-as-you-go/ 4/000 free API requests |
| Revenue Streams | Subscription/ Cloud Infrastructure Services | Recurring revenue via infrastructure/feature consumption | Monthly compute/storage charges/ Amazon Q Developer per-user pricing |

## 2.2.3 Domino Data Lab

*Table 9: Domino Data Lab's codebook*

| Dimension | Characteristic | Axial Code | Open Codes |
|---|---|---|---|
| Assets | Intangible | Software platform/ MLOps infrastructure | Domino's Enterprise AI Platform/ Integrated Coding Assistants |
| Channels | direct sales | Purchasing flexibility | Direct enterprise sales/ Multi-channel sales access/ Self-service purchase option/ B2B sales enablement |

| | | | |
|---|---|---|---|
| | marketplace | Cloud-Native Distribution | Cloud marketplace availability/SaaS procurement via marketplaces (e.g./ AWS/ GCP) |
| Complementary Resources | Tools | Open-source and commercial tools | Access the broadest ecosystem of open source and commercial tools |
| | Ecosystem | Templates/ partnerships/ integrations | Project templates from Domino and partners like NVIDIA/ AWS/ Open and extensible integrates with your stack |
| | Prebuilt Models | Templates/ model registry | Pre-built solutions for AI and GenAI use cases/ Model Registry offers a central repository |
| | Data Assets | Feature Store | Domino Feature Store/ reuse features |
| Complementary Services | Automation | AutoML/ CI/CD integrations | Automate training and tuning/ Integrate with existing CI/CD pipelines |
| | Governance & Compliance | AI governance/ policy enforcement | Make governance automated and actionable/ Transform governance into a swift and dependable process |
| | Specialized Expertise | Coding assistants/ experiment manager | Coding assistants like Jupyter AI and GitHub Copilot/ Domino's scalable experiment management |
| Core VP | Accessibility | Access to tools/ infrastructure/ and compute | Easily access any tool/ data/ and infrastructure/ on-demand/ Domino offers one-click access to your preferred tools |
| | Adaptability | Customization/ modular deployment | Deploy models to any endpoint/ Run AI workloads anywhere — hybrid cloud/ multiple clouds |
| | Efficiency | Resource optimization/ cost reduction | Reduce AI costs and complexity/ Optimize and lower costs with proactive FinOps |
| | Governance & Compliance | AI governance registry/ sign-off process/ PII protection | Dataiku Govern/ block deployment without proper compliance/ Safe Guard and Cost Guard for PII screening and content moderation |
| | collaboration | Project collaboration | Invite collaborators/ built-in git integration/ single definition of truth/ projects for collaboration |
| | Tailored intelligence | Fine-tuning/ AutoML/ Model tuning | Fine-tune foundation models quickly/ AutoML to quickly find best-performing models at the lowest cost |
| Costs | Tangible | Compute/ infrastructure | Cloud and IT expenses/ CPUs and GPUs |
| | Intangible | Development/ collaboration software | Domino platform/ AutoML/ Coding Assistants |
| | Customer Support | Contact support | Contact the Domino account team to request a quote |
| Data Strategy | Customer-supplied (continuous) | Data pipelines/ real-time deployment | Monitor your models wherever they run/ Continuously improve model performance |

| | | | |
|---|---|---|---|
| Data Type | Mixed Data | Structured and unstructured support | Work with structured or unstructured data/ Train predictive and generative AI |
| Industry Focus | Industry specific | Finance/ Life Sciences/ Manufacturing | Life Sciences Finance Retail Manufacturing |
| Infrastructure | Compute | Distributed clusters/ scalable infrastructure | Self-serve infrastructure/ distributed compute clusters/ CPUs/ and GPUs |
| | Cloud Storage | Cloud-native deployment | Run Domino in your private/ or public or hybrid cloud infrastructure |
| | Private Connectivity | VPC deployment options | Deploy in a VPC — Azure/ AWS/ Google Cloud |
| | Disaster Recovery | Auditability/ redundancy | Track all your models get complete lineage tracking for auditability/ new proposal — disaster recovery and model lineage linked to compliance |
| Interface | Graphical | UI tools like Jupyter/ VSCode | Development environments such as Jupyter/ JupyterLab/ RStudio/ SAS/ VSCode |
| | APIs | Integration layer | Domino's API framework delivers full extensibility |
| ML Lifecycle Activities | Data Processing | Data preparation/ cleansing/ transformation | Explore/ analyze/ and transform data/ Apply transformations such as filter/ join/ group |
| | Training | AutoML/ hyperparameter tuning | Train predictive models/ Automate hyperparameter tuning at scale |
| | Validation | Model registry/ experiment tracking | Validate and review models with custom approval workflows/ Compare models |
| | Monitoring | Drift detection/ metrics tracking | Track data drift and model quality degradation automatically/ Continuously monitor accuracy metrics |
| | Retraining | Iterative improvement | Retrain to reduce risk and ensure business value/ automate monitoring for continuous improvement |
| ML Scope | Content Changing | Custom AI models/ GenAI tuning | Fine-tune foundation models quickly/ Move GenAI from pilot to production |
| ML Service Model | Model development & deployment service | Unified platform/ MLOps/ Model Registry | Domino's Enterprise AI Platform provides an integrated experience encompassing model development/ MLOps/ collaboration/ and governance. |
| ML Service Model | Model development & deployment + ready-to-use | AI Hub/ Project Templates | Pre-built solutions for AI and GenAI use cases/ AI Hub accelerates AI applications from project templates - prebuilt solutions curated from the best open source. |
| Model Hosting | Hybrid | On-prem/ cloud/ and multi-cloud | Run AI workloads anywhere — on-premises/ hybrid/ any cloud or multicloud |
| | Cloud | SaaS and cloud-native | Domino Cloud / Fully-managed in the cloud/ SaaS / Fully managed for you |

| | On Premise | Self-managed environment | Self-managed in any environment / on-premises/ private/ public or hybrid cloud infrastructure. |
|---|---|---|---|
| Partnerships | Technology Partners | NVIDIA/ AWS/ Snowflake | Partners like NVIDIA/ AWS/ and more |
| | Investors | Sequoia Capital/ Coatue | Domino backed by Sequoia Capital/ Coatue Management |
| Pricing Model | Usage-based pricing | Cost tracking/ FinOps | Optimize and reduce IT and cloud expenses by maximizing resource efficiency/ granular billing reports |
| | seat-based pricing | | Predictable subscription units based on the platform you choose and number of users |
| Revenue Streams= | Subscription | Platform-based recurring revenue | Domino Cloud / Fully-managed in the cloud implies a SaaS model |
| | Integrated Partner Services | Revenue sharing | Vultr joint offering with fast GPU access |
| | cloud infrastructure services | Infrastructure-related monetization | Fully-managed cloud service/ in your VPC — Azure/ AWS |

## 2.2.4 Dataiku

Table 10: Dataiku's codebook

| Dimension | Characteristic | Axial Codes | Open Codes |
|---|---|---|---|
| Assets | Tangible | SaaS subscriptions/ infrastructure | Dataiku Cloud/ Elastic compute with Kubernetes on cloud of choice |
| | Intangible | Platform IP/ LLM orchestration frameworks | LLM Mesh/ Dataiku Govern/ Safe Guard/ Cost Guard |
| Complementary Resources | Tools | VS Code/ Jupyter/ Prompt Studio | VS Code and Jupyter Notebooks/ Prompt Studios/ capture MLFlow experiments |
| | Prebuilt models | AutoML templates/ visual recipes/ pre-built GenAI assistants | visual machine learning capabilities/ Dataiku Answers/ code-free GenAI-powered recipes |
| | Ecosystem | Plugins/ connectors/ APIs | Plugins and Connectors/ TitanML/ Hugging Face/ NVIDIA NIM integrations |
| | Data Assets | Feature stores/ data catalogs | Dataiku's central feature store/ data catalog with trusted datasets |
| Complementary Services | Specialized Expertise | Explainability/ bias analysis/ fairness reporting | white-box explainability/ Model Fairness Report/ explanation reports |
| | Automation | Code automation/ visual workflows/ pipelines | GenAI powered assistants to generate and explain code/ automated drift monitoring/ deployment automation |
| | Governance & Compliance | AI governance registry/ sign-off process/ PII protection | Dataiku Govern/ block deployment without proper compliance/ Safe Guard and Cost Guard for PII screening and content moderation |
| Core VP | Accessibility | Visual + code/ no-code agents/ GenAI assistants | code-free or full-code development tools/ AI-powered assistants/ visual data pipelines |

| | | | |
|---|---|---|---|
| | Efficiency | Unified platform/ reduction in time spent/ rapid prototyping | 70% reduction in time spent on data analysis/ AutoML/ deploy secure GenAI apps in days/ not months |
| | Tailored Intelligence | Prompt engineering/ LLM optimization/ explainability | Prompt Studios/ compare performance and cost across models/ white-box explainability |
| | Adaptability | Plugin marketplace/ feature store/ hybrid model input/output | central feature store/ develop models in MLFlow and import into Dataiku/ Dataiku Plugins to extend capabilities |
| Costs | Tangible | Compute/ infrastructure/ personnel | pre-configured clusters/ GPU resources/ support contracts |
| | Intangible | R&D/ governance frameworks/ integrations | Dataiku Govern/ LLM Mesh infrastructure/ Safe Guard/ Prompt Studios development |
| Customer Relationships | Communities / Self-service portal | Trials/ forums/ conferences | 14-day free trial/ Everyday AI Conference/ Dataiku Blog |
| | Customer Support | Product documentation/ webinars/ training | Dataiku End-to-End Demo/ AI Governance Series/ Prompt Studios walkthrough |
| Data Strategy | Customer-supplied (on-demand & continuous) | Integration with live and stored data sources | connect to approved LLMs and vector stores/ connectors to dozens of on-premises and cloud sources |
| Data Type | Mixed data | Text/ structured/ image/ geospatial | text summarization/ image classification/ geospatial joins/ structured sign-off |
| Industry Focus | Industry specific | Retail/ pharma/ manufacturing/ banking | Retailers... to forecast demand/ Pharma teams to speed up R&D/ FSI institutions to manage risk/ Manufacturers to reduce downtime |
| Infrastructure | Compute | Kubernetes/ Spark/ GPUs | elastic and highly scalable compute/ pre-configured and fully managed clusters/ GPU for deep learning |
| | Cloud Storage | Multicloud object stores | Amazon S3/ Azure Blob/ Google Cloud Storage support |
| | Private Connectivity | Corporate LDAP/ enterprise plugins/ hybrid infrastructure | connect to leading data sources/ hosted or self-hosted deployments/ plugin for Collibra export |
| Interface | Graphical | Visual recipes/ flows/ dashboards | Visual data pipelines/ drag and drop interface/ dashboarding and reporting |
| | APIs | REST APIs/ SDK/ plugin endpoints | Expose functions via REST/ programmatically develop models with SDK |
| | SDKs | Python SDK/ Plugin SDK | Dataiku Python SDK/ Plugin recipes and processors |
| ML Lifecycle Activities | Data processing | Visual and programmatic pipelines/ assistants | prepare data 10x faster/ prompt-driven data prep steps/ 100+ built-in transformers |
| | Training | AutoML/ Deep learning/ MLFlow integration | AutoML with explainability/ deep learning with Keras/TensorFlow/ import models developed with MLFlow |
| | Validation | Explainability/ audit trails/ stress testing | fairness analysis/ what-if analysis/ stress tests/ audit of entire application flows |
| | Monitoring | Drift detection/ dashboards/ alerts | automated drift monitoring/ structured sign-off mechanisms/ performance and cost tracking |

| | Retraining | Recalibration/ flexible retrain triggers | retrain models in case of drift/ custom retraining strategies/ Auto-Recalibration |
|---|---|---|---|
| ML Scope | Context changing | Dynamic pipelines/ multi-agent orchestration | orchestrating multiple agents and tools/ flexible LLM prompt management/ performance and cost tracking |
| | Content changing | GenAI/NLP/text prep/ RAG/ embeddings | RAG techniques/ entity extraction/ sentiment analysis/ text summarization/ classification/ LLM-powered NLP |
| ML Service Model | Model development & deployment with ready-to-use service | End-to-end platform/ prebuilt recipes/ agents/ GenAI apps | From data access and preparation through modeling/ app development/ production deployment/one-stop shop/ build agents and generative AI applications at scale/ deploy machine learning and GenAI projects with structured governance and oversight |
| Model Hosting | Cloud/ On-premise/ Hybrid | SaaS and downloadable/ managed or self-hosted | fully managed by Dataiku on our secure servers/ install Dataiku on your infrastructure |
| Partnerships | Technology Partners | Cloud and AI vendors/ plugin creators | Hugging Face/ OpenAI/ Amazon Transcribe/ DeepL/ TitanML Takeoff/ Snowflake plugin |
| Pricing Model | Tiered Pricing | Free/ trial/ enterprise plans | Free Edition/ Free Trial/ Paid Editions/ Compare Plans |
| Revenue Streams | Subscription | Enterprise licensing/ cloud SaaS | Paid Editions hosted by Dataiku or self-hosted/ ROI of 413% |
| | Cloud Infrastructure Services | Consumption-based compute plans | elastic resources powered by Spark and Kubernetes on your cloud of choice |

# 2.3 Second empirical-to-conceptual iteration (E2C-2)
## 2.3.1 Modular

*Table 11: Modular's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| complementary resources | tools | sandbox and workflows | GPU puzzle/ mojo playground/ recipes |
| | marketplace | model library | hugging face model hub |
| | prebuilt models | model options | 500+ models/ open models/ supported models/ recipes/ |
| core VP | efficiency | performance optimization | speed-of-light inference/ state-of-the-art performance/ unlock performance |
| | accessibility | environment accessibility | multi-hardware support/multi-cloud deployment |
| | adaptability | hardware/model flexibility | multi-hardware support/ write once deploy anywhere/ hardware agnostic/customizable |
| Costs | Intangible | Community contributions | contribute code/ build amazing things/ open-source community |
| | tangible | growth investment | product expansion/ hardware support/ the expansion of Modular's programming language/ Mojo |
| Customer Relationships | communities | Community license support | community license/ license FAQ/ device definition |

| | | | |
|---|---|---|---|
| | communities | active forums & discord | developer community/ connect on Discord/ chat in forum/ community highlights |
| | self-service portal | documents & tutorials | get the docs/ read the docs/ step-by-step guides |
| | customer support | free & paid support options | dedicated enterprise support/ community support |
| Data Strategy | Customer-Supplied (on-demand) | Self-service data | deploy yourself/ retrieve up-to-date data/ fetch data |
| Data Type | Textual/Natural Language Data | LLMs, Chatbots | LLMs/ chatbots/ conversations |
| | Mixed Data | Multi-modal tasks | agent workflows/ batch processing/ code generation |
| industry focus | industry unspecific | broad applicability | build AI apps/ any use case/ general purpose |
| infrastructure | specialized hardware support | GPU support | GPU performance/ CPU+GPU/ NVIDIA support/Apple GPUs/ any CPUs/ GPU kernel tuning |
| interface | APIs | integration methods | REST API/ Python integration/ Access API |
| | SDKs | Mojo tools | Mojo playground/ GPU puzzles/ Mojo SDK |
| ML lifecycle activities | deploying | Flexible deployment | deploy yourself/ docker container/ OpenAI-compatible endpoint |
| | retraining | tuning | customize the model/ tune GPU kernel/ extensibility |
| | validation | Workflow testing | Mojo playground/ |
| | building/training | development environment | Mojo language/ GPU code library/ kernel development |
| ML scope | generative | LLM & GenAI support | GenAI models/ LLM orchestration/ AI inference/GenAI model/ LLMs/ code generation |
| model hosting | hybrid | deployment options | multi-cloud deployment/ Kubernetes-native control/ scale across GPUs |
| partnerships | technology partners | integration partners | Hugging Face/ OpenAI endpoint/ Docker image |
| | investors | venture capitalists | general catalyst/ GV (Google Ventures)/ SV Angel/ Greylock and Factory |
| | research institution | community R&D | open source code/ GitHub repository/ developer community/ 300 open-source projects/ contribute code/ model development |
| pricing model | freemium | free to use with premium upgrade | free forever |
| | usaged based pricing | pay per GPU | Per GPU Pricing |
| | tiered pricing | scaling options | modular community tier/ self-hosted enterprise |
| revenue stream | subscription | enterprise version | enterprise-grade deployments/ self-hosted enterprise/ scale with us |

## 2.3.2 CodeOcean

*Table 12: CodeOcean's codebook*

| Dimension | Characteristic | Axial Codes | Open Codes |
|---|---|---|---|
| Complementary Resources | Governance & Compliance | Auditability & compliance | Lineage Graph/ Immutable Git-tracked records |
| | ecosystem | open-source ecosystem | open-source library/scientific community |
| | data assets | custom metadata | custom keys/specify value and input types for users/Custom metadata/automated result provenance/ready-made template |
| | tools | Prebuilt tools | nf-core pipelines/ Cached R/Python packages/Code Ocean Apps/custom Data Connector Capsules/ |
| | compute | compute | public compute capsules |
| | marketplace | open sourced library | model library/code library/script/capsule |
| Complementary Services | Governance & Compliance | Regulatory readiness | Role-based access control/ FDA-compliant provenance/Secrets and Roles/SAML SSO and Google OpenID Connect (OIDC) |
| | automation | User-friendly automation | One-click cloud deployment/ No DevOps required |
| Core VP | accessibility | Cross-platform interoperability | Export Capsules to run anywhere/ /without any additional work or platform lock-in. |
| | Efficiency | Time/cost optimization | Automated provenance/ Spot instances for cost savings |
| | Tailored Intelligence | Domain-specific customization | Bioinformatics templates/ nf-core pipeline imports |
| | Adaptability | Flexible infrastructure | GPU-ready environments/ Multi-language support |
| Customer Relationships | Communities | Collaborative research | Open Science Library/ Shared Collections/User docs |
| | self-service portal | self service section | user docs/model map/admin guide/faq |
| Data Strategy | Third party | external data | linking to S3 bucket locations/external data |
| | Customer-Supplied (Continuous) | live data pipelines | Attach live S3 data/ Multiomics datasets/internal data |
| Data Type | visual data | images | images/individual files to petabyte-sized datasets/base images |
| | mixed data | structured & unstructured data | Native support for AWS S3, Athena, and Databricks/multimodel datasets |
| Industry Focus | Industry-Specific | Vertical specialization | Biotech/Pharma/ Computational Biology |
| Infrastructure | compute | compute management | Assign flex machines/dedicated machines/spot instances |

| | Cloud Storage | Scalable storage | S3/EFS integration/ Hybrid cloud architecture |
|---|---|---|---|
| Interface | Graphical | Low-code/No-code tools | Visual Pipeline builder/ Admin Panel/any IDEs |
| | APIs | API triggers | Trigger API events |
| | SDKs | Developer integration | Python SDK |
| ML Lifecycle | Training/Validation | End-to-end MLops | ML model tracking/ Parameter management |
| Model Hosting | hybrid | cloud and other courses | AWS integration/in the cloud/from any other source |
| Partnerships | Research Institutions | Academic alliances | Allen Institute/ Nature collaborations/ University research labs |
| | Investors | Venture Capitalists | Battery Ventures/ Digitalis Ventures/ EBSCO and Vaal Partners |
| | Technology Partners | Cloud/ML ecosystem | AWS integration/ MLFlow |
| Pricing Model | Tiered pricing | Tiered pricing | Enterprise licensing/ Academic support add-ons |
| | Freemium | Freemium strategy | Free Open Science Library/ Community-tier access/ Self-service academic offering |

## 2.3.3 Databricks

*Table 13:Databricks' codebook*

| Dimension | Characteristic | Axial Codes | Open Codes |
|---|---|---|---|
| Complementary Resources | Marketplace | Marketplace | open marketplace for data/ analytics and AI/ Access more than just data sets/ including machine learning models/notebooks/marketplace for data products |
| | tools | tools | AI gateway, vector search/agent framework/databricks notebook |
| | Prebuilt models | Foundation models | DBRX/ a general purpose large language model/Foundation Model APIs |
| Complementary Services | Automation | AutoML | Databricks AutoML is a solution that provides a low-code approach |
| | Governance & compliance | Built-in governance | Unity Catalog for governance/ Centralized discovery/ management/ and governance/Maintain data security with end-to-end governance/ Enforce guardrails for all of your models |
| Core VP | Efficiency | cost/time savings | improvement in accuracy/productivity gains/accuracy of responses/reduction in cost |
| | tailored intelligence | customizability | Custom evaluation/customize your AI models |

| | Adaptability | Multi-model/modal support | Use any model/ from classical machine learning to GenAI/Supports any AI model//ingest any data type |
|---|---|---|---|
| Customer Relationships | Communities | community building strategy | Databricks Community Edition/community/community events |
| | customer support | tiered support policy | business/enhanced/production/mission critical |
| | self-help portal | self-help | documentation/resource center/demo center |
| Data Strategy | third party | data from marketplace | files/komodo/trademo/delta sharing protocol/data recipient |
| | Customer-supplied (continuous) | Real-time data sync | Real-time syncing of source data/ Automatically updating the corresponding vector index/share live data |
| Data Type | textual/natural language data | text | document |
| | visual data | visual data | image/video data |
| Industry focus | industry unspecific | cross-industry | across every industry |
| Infrastructure | cloud storage | lakehouse storage | open table formats/analytics data/lakehouse storage/lakehouse federation |
| | Compute | Serverless compute | Serverless Data Engineering in the Age of AI/ Run on clusters to get access to scale |
| Interface | graphical | unified platform | IDE integrations |
| | APIs | REST APIs | Mosaic AI Gateway supports any model endpoint/ Access models through API endpoints |
| ML Lifecycle Activities | Monitoring | Lakehouse Monitoring | Monitor your entire AI workflow/ Lakehouse Monitoring provides comprehensive insights |
| | Retraining | Model fine-tuning | Fine-tune open source LLMs/ Mosaic AI Model Training - fine-tuning |
| ML Scope | Predictive | ML applications | ML applications/predictive models |
| | Generative | genAI applications and AI agents | genAI agents/build agents/deploy agents/evaluate agents/govern agents/custom LLMs |
| Model Hosting | Cloud | Cloud infrastructure | Databricks on AWS/ Azure/ GCP/ Run on clusters to get access to scale for large data applications |
| Partnerships | Technology partners | cloud providers/technology partners | aws/azure/gcp/sap |
| | research institutions | university | university alliance |
| | data brokers | data providers | komodo/trademo/data partners |

| | System integrators | system integrations/consulting firms | System integrators/consulting partners/design data transformation strategy/adaltas/accenture |
|---|---|---|---|
| | Independent software vendors | Partner Connect | connect tools to lakehouse// Fivetran/ dbt/ Alation integrations/SDK providers |
| Pricing Model | Usage-based pricing | Pay-as-you-go | Pay as you go with no up-front costs/ Per-second granularity/price list for different features |
| | free trial | free to try | try databricks for free/free serverless credits |
| | Tiered pricing | tiered pricing for partner program and add-ons | tiered partner program/ platform tiers/add ons for premium and enterprise tiers |
| Revenue Streams | Transaction | by usage | per transacted unit when used/when feature is used |
| | Certification | Certification programs | Databricks Certification and Badging |
| | Training | training academy | Free GenAI Training/ Databricks Academy/paid events/summits/data intelligence days/university alliance |
| | Cloud infrastructure services | cloud services | different pricing for different cloud services |
| | Partnership | tiered partner program | elite/select/validated/registered/by invitation only//sales inventives |

## 2.3.4 ZAM

*Table 14: ZAM's codebook*

| Dimension | Characteristic | Axial Codes | Open Codes |
|---|---|---|---|
| Complementary Resources | prebuilt models | Ready-to-use models | Extensive Algorithm Library/ Classification/Regression/Time Series Models |
| | integrated AI assistance | AI agents | knowledge agents/process agents/reasoning agents/apps/chatbots/workflows & agents |
| | tools | sandbox for trials | test drive agents |
| | ecosystem | ecosystem with compatible integrations | Integrations with Airtable, Salesforce etc |
| | data assets | data space | organized contextual data for agents |
| Complementary services | governance & compliance | governance and security | audit trails, SOC2 compliance/GDPR/HIPAA/ |
| | automation | workflow automation | automating contract workflows/automate RDQ and quote flow |
| | specialized expertise | specialist support | Dedicated Data Scientist/ Solutions Architect |

| Core VP | Efficiency | Fast deployment | Deploy AI models in 2 days/ No coding required/without increasing headcount |
|---|---|---|---|
| | Adaptability | Self-improving models | Continuous model monitoring/ Automated retraining |
| | Tailored Intelligence | tailored AI | agents tailored to data and flows |
| Costs | Tangible Costs | HR & compliance costs | Data scientist team/ Security certifications |
| Customer Relationships | customer support | expert led support | Dedicated Data Scientist/ Solutions Architect/AI chat support/dedicated slack channel/white glove setup/dedicated account manager |
| | self service portal | document repositories | API docs/change log/status page/ZAMs enterprise dashboard |
| Data Strategy | customer-supplied(on-demand) | customer's data source | vectorizable data from customer's database |
| Data Type | mixed data | unstructured data | database/quickbook/spreadsheets/contract data |
| Industry Focus | Industry Specific | Domain-specific | Loan underwriting automation/ Maritime procurement optimization |
| Infrastructure | Cloud Storage | Scalable infrastructure | Up to 10 GB of Files/ Private Cloud Setup |
| Interface | Graphical | User-friendly UI | Clean and clear UI/ No-code platform// AI models for tabular data in clicks/dashboard |
| | APIs | API integrations | REST API integration/ Webhooks/API documentation |
| ML Lifecycle Activities | Monitoring | Performance tracking | Model Monitoring/ Logging & Audit Trails |
| | Retraining | Model optimization | Automated retraining cycles |
| ML Scope | generative | AI agents | AI agents/workflow automation/action generation/powered by language/LLM-powered agents |
| Partnerships | Technology partners | integrations partner | Zapier/ HubSpot/ Salesforce integrations/Microsoft |
| | Other | brand partners | ZAM brand partners |
| Pricing Model | Tiered Pricing | three-tiers | Startup Plan/ SMB Plan/ Enterprise Plan |
| | Free trial | guided trial | guided trial/support-involved trial setup/request early access to platform |
| Revenue Streams | Subscription | Recurring revenue | monthly payments |

## 2.4 Third empirical-to-conceptual iteration (E2C-3)
### 2.4.1 Dataloop

*Table 15: Databloop's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| core VP | customizability | flexible configuration | pipeline templates/ model flexibility |

| | | | |
|---|---|---|---|
| | efficiency | reduced setup time | faster deployment/ time saving/ workflow automation |
| | adaptability | modular design | modular platform |
| machine learning focus | generative | model retraining | model retraining/ annotation updates/ AI iteration |
| model hosting | public cloud | integrated cloud | cloud-native tools/ multi-cloud compute/ cloud ingest |
| complementary resources | automation | auto-preprocessing | label automation/ auto-preprocessing/ model-based QA |
| | governance & compliance | audit trail/taxonomy governance | GDPR compliant/ audit logs/ access control/ labeling ontology/ annotation quality/ taxonomy rules |
| machine learning lifecycle activities | data preparation | data preparation | data cleaning/ versioning tools/ routing engine |
| | ML development & deployment | model training | model tuning/ training optimization |
| | ML operation | model monitoring & retraining | feedback loop/ quality control/ RLHF validation/ progress tracking/ work analytics/ usage alerts/ auto retrain/ error detection/ learning management |
| complementary resources | tools | developer's SDK | SDK tools/ debugging logs/ UI pipelines |
| | ecosystem | ecosystem | tool ecosystem/ integrations list |
| | marketplace | marketplace | model marketplace/ |
| | prebuilt models | reusable models | off-the-shelf models/ model swapping/ reusable models |
| data source | customer-supplied (continuous) | user-uploaded data | dataset sync/ user data/ ongoing upload |
| data type | textual/natural language data | documents / natural language data | audio labeling/ GenAI tasks/ natural language input/document annotation/ PDF labeling/ NLP forms |
| | visual data | image/video data | image support/ video support/ lidar support |
| | mixed data | multi-modal support | multi-modal data/ JSON support/ GIS support |
| infrastructure | compute | scalable compute | auto-scalers/ serverless compute/ debug to scale |
| | cloud storage | cloud storage | cloud sync/ cloud storage/ data ingestion |
| partnerships | technology partners | cloud vendors | compute partner/ cloud vendors |

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
|  | investors | investor | investor funding/ capital infusion/ Series B round |
| customer relationships | self-service portal | support resources | support docs/ live alerts/ SDK help/ customer portal/ UI analytics/ usage insights |
| industry focus | Industry unspecific | general purpose use case | general AI use/ multi-domain support/ universal tool |
| interface | graphical | visual builder | graphical UI/ drag builder/ visual workflow |
|  | API | integration | API access/ developer tools |
|  | SDKs | code integration | Python SDK/ CLI tools/ dev integration/ SDK integration/ |
| pricing model | usage-based pricing | compute-based usage | usage tracking/ compute hours/ data metrics |
|  | tiered pricing | subscription tiers | billing tier/ quota alerts/ subscription plan |
| revenue streams | subscription | monthly usage | subscription plan/ license model/ usage pricing |
|  | cloud infrastructure services | compute budget | compute budget/ billing integration/ cloud cost |

## 2.4.2 Prime Hub

*Table 16: Prime Hub's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| core VP | accessibility | User-friendly interface | One-click Jupyter/ Visualize progress/ Easy monitoring |
|  | customizability | Tailored environments | Custom hardware specs/ Multiple frameworks/ Co-existence versions |
|  | efficiency | Streamlined deployment | One-click install/ Rapid construction/ Automated pipelines |
| ML scope | predictive | predictive | data scientists/machine learning/ML pipelines |
| mode hosting | private on-premise cloud | On-premises installation | on-premise cluster/ Kubernetes cluster/ single-node install |
|  | hybrid | Flexible deployment | On-premises cluster/ Kubernetes cluster/ Single-node option/ AWS one-click |
| complementary services | specialized expertise | expert consultation | consultation services |
|  | automation | Workflow automation | Submit scheduled jobs/ Automatic data mounting |
|  | governance & compliance | Security & auditing | 2-factor authentication/ Internal auditing/ Single sign-on |
|  | data preparation | data preparation | prepare data |

| | | | |
|---|---|---|---|
| ML lifecycle activities | ML development & deployment | End-to-end MLOps | Train/deploy models/ Versioned models/ Model monitoring |
| | ML operation | MLOps | MLOps feature set |
| complementary resources | tools | Integrated platforms | JupyterLab/ Kubernetes/ Grafana dashboard |
| | ecosystem | Third-party integrations | 3rd-party apps/ Label Studio/ MLflow integration |
| data source | customer-supplied (on-demand) | on-demand data | upload datasets/ shared resources/ group datasets |
| data type | mixed data | mixed | natural language models/training data mounting/ sensor data pipelines |
| infrastructure | compute | compute | Kubernetes cluster/ cloud-native/ container orchestration |
| | cloud storage | data storage | shared datasets/ group folders/ persistent data stores |
| | others | hardware configuration | custom hardware specs/ VM configurations/ on-premises installations |
| partnerships | technology partners | Ecosystem expansion | AWS/GKE/EKS integration/ Label Studio |
| | system integrators | System integrators | System integrators |
| | academic/research institutions | open source Collaborations | Taiwan AI Academy/ Open-source contributors/ Katacoda |
| customer relationships | self-service portal | | user portal/admin portal |
| | communities | community engagement | Discord community/ Open-source contributors/ Documentation |
| | customer support | Tailored solutions | Customize solution/ Expert consultation |
| Industry focus | Industry specific | Vertical solutions | Healthcare/ Finance/ Manufacturing (E.SUN Bank/ Chimei Medical) |
| interface | graphical | Interactive UI | Admin Portal/ User Portal/ Job stats panel |
| | API | Developer access | SSH remote access/ Notebook extension/ Katacoda scenarios |
| pricing model | tiered pricing | Product tiers | PrimeHub Community/Enterprise |
| | free trial | Entry-level access | Free trial/ Community Edition/ Enterprise trial |
| revenue streams | subscription | Recurring revenue | Enterprise license |
| | transaction | one-off | consultation services |

## 2.4.3 Iguazio

*Table 17: Iguazio's codebook*

| **Dimension** | **Characteristics** | **Axial Codes** | **Open Codes** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| core VP | accessibility | Democratized AI access | self-service orchestration/ multi-cloud support/ cross-company strategy |
| | customizability | Flexible customization | customize LLMs |
| | efficiency | Operational scaling | reduce time/ optimize resources/ scale deployments/80x Faster/25% Reduction/60% Faults prevented |
| | adaptability | open-source compatibility | open-source orchestration |
| machine learning scope | generative | generative | Gen AI orchestration/ LLM customization/ chatbot automation |
| model hosting | hybrid | Flexible infrastructure | multi-cloud/ on-premises/ hybrid environments |
| complementary services | specialized expertise | Enterprise consulting | AI experts/ McKinsey acquisition/ data science services |
| | automation | MLOps automation | pipeline orchestration/ automated scaling/ AI automation |
| | governance & compliance | Risk mitigation tools | compliance tooling/ guardrails/ monitor applications |
| | other | hardware/cloud capability | GPU management/ data storage/ FSx ONTAP support/ optimize compute/ serverless execution |
| ML lifecycle activities | data preparation | Real-time ingestion | data ingestion/ transform data/ ensure data quality |
| | ML development & deployment | End-to-end AI lifecycle | development to production/ entire AI pipeline/ CI/CD for ML/build pipelines/ feature engineering/ fine-tune models/ optimize training/ model tuning/real-time inference |
| | ML operation | Automated MLOps tooling | prebuilt MLOps tools/monitor live models/ GPU management/ runtime scaling |
| complementary resources | tools | Integrated tools | MLRun/ serverless technology/ CI/CD tools |
| | ecosystem | Ecosystem integration | Snowflake partnership/ MongoDB collaboration/ NetApp integration |
| | prebuilt models | Ready components | open-source LLMs/ chatbot automation/ feature store |
| data source | customer-supplied (continuous) | Continuous AI integration | real-time data/ live operations/ data versioning/Real-time data ingestion |
| data type | textual/natural language data | natural language/textual data | natural language/ textual data/ chatbot queries |
| partnerships | technology partners | Strategic tech alliances | Snowflake partnership/ MongoDB collaboration/ NetApp integration/ OEM partners/ tech partners |
| | system integrators | Implementation partners | McKinsey/ cross-company strategy/ deployment support/ system integrators/ added value resellers |

| customer relationships | communities | Open-source community | open-source tools/ MLRun community/ ecosystem feedback |
|---|---|---|---|
| | customer support | support services | support services/ customer success/AI specialists/ Enterprise support |
| Industry focus | Industry specific | Industry-tailored | Financial services/Manufacturing/Healthcare |
| | API | Programmatic control | APIs/ feature store API/Real-time APIs/Jupyter integration |
| | SDKs | SDKs | SDKs/ |
| pricing model | usage-based pricing | Elastic scaling | scale resources |
| | free trial | Free trial | Free trial |
| revenue streams | subscription | Platform licensing | ML platform/ subscription model/ enterprise access |
| | partnership | partner program | Partner programs/Platform licensing |
| | cloud infrastructure services | Infra-based monetization | multi-cloud/ hybrid deployment/ FSx ONTAP |
| | training | training | Training services |

## 2.4.4 Google Vertex AI

Table 18:Google Vertex AI's codebook

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| core VP | accessibility | available to developers | try prompts/ get credits/ available access |
| | customizability | customizable model/data/workflow | Hyperparameter tuning for custom models/Bring your own containers/custom feature engineering/Custom prediction routines |
| | efficiency | faster development | accelerate development/ innovate faster/ test & tune |
| | adaptability | multimodal input | text input/ image input/ code input |
| ML scope | predictive | traditional machine learning | autoML models/Custom training/Scikit-learn/XGBoost/TensorFlow/PyTorch/ Pipelines for ML workflows/Feature Store, Model Monitoring, Explainable AI |
| | generative | generative capabilities | build generative apps/ generative models/ generate output/advanced |

| | | | reasoning/ state-of-art generation/ Gemini models |
|---|---|---|---|
| google vertex AI | public cloud | hosted on cloud | Google Cloud/ Vertex AI/ fully-managed |
| complementary services | specialized expertise | Specialized expertise | MLOps tools/prebuilt solutions/reference architectures |
| | automation | autoML models | AutoML models |
| | governance & compliance | Governance & compliance | embedded compliance/model monitoring/explainable AI |
| ML lifecycle activities | data preparation | data preparation | data processing/preparation for tabular data |
| | ML development & deployment | model development | build apps/ develop models/ try prompts generate answers/ process input/ multimodal output test models/ tune models/ evaluate output |
| | ML operation | Model operation | Model Registry/Feature Store/pipeline orchestration |
| complementary resources | tools | tools | Vertex AI Studio/ Gemini API/ Agent Builder/prompt testing/ sample prompts/ output evaluation/ model triggers/trigger actions/ retrieve info/ image-to-JSON |
| | ecosystem | model ecosystem/cloud infrastructure | integrated Google Cloud products/ Model Garden/ extensions/Google Cloud/ fully-managed/ unified platform |
| | marketplace | model access | 200+ models/ sample prompts/ Model Garden/ first-party models/ third-party models |
| | prebuilt models | prebuilt models | 200+ foundation models/ Gemini 1.5 Pro/ Imagen/Chirp/Veo |
| | integrated AI asistant | AI assistant | Agent Builder/Vertex AI Studio/prompt design tools |
| data source | customer-supplied (on-demand) | prompt-based input | try prompts/ upload images/ test prompts |
| | customer-supplied (continuous) | continuous customer data | BigQuery streaming/Feature Store/data labeling |
| data type | mixed data | multimodal support | text/ images/ code/ video/multimodal Gemini/text+image+video/speech-to-text |
| infrastructure | compute | compute customization | Ray on Vertex AI/TPU v5e/NVIDIA Tesla T4/V100/per GPU/hour (A100, H100, etc.)/pipeline run/Compute Engine |
| | cloud storage | storage options | Cloud Storage buckets/bigtable storage/ metadata storage/ storage of Tensor Board experiement logs |

| | others | ancillary infrastructure services | pipelines/ vector search/labeling/monitoring |
|---|---|---|---|
| partnerships | technology partners | third-party model developer | Anthropic Claude/ open models/ extensions |
| | system integrators | system integrators | google cloud marketplace/ google cloud partner/ consulting partners/ reselling partner solutions |
| customer relationships | self-service portal | try it yourself | sample prompts/ get credits/ try platform/ View documentation/ help pages/ platform guides |
| | customer support | customer support | Cloud support |
| | Industry unspecific | general platform | cross-industry/enterprise-ready AI/any industry/wide variety of use cases |
| interface | graphical | interface studio | Vertex AI Studio/ Agent Builder/ documentation/ Cloud Console/pipeline visualizer |
| | API | API access | Gemini API/ use extensions/ model triggers |
| pricing model | usage-based pricing | model usage | consumption-based pricing/per node hour/per 1K characters/per vCPU-hour/per 1000 characters for Gemini API/ per image generation (Imagen)/per node-hour pricing /per GB pricing for data analysis |
| | seat-based pricing | | paid per user/month/Vertex AI Workbench |
| | freemium | trial credits | $300 credits/ new customers/ try Vertex |
| revenue streams | subscription | monthly payment | managed notebook service with recurring billing/paid per user/month/Colab Enterprise |
| | transaction | revenue per transaction | per 1000 characters for Gemini API/ per image generation (Imagen)/per node-hour pricing /per GB pricing for data analysis |
| | certification | certification revenue | Google Cloud certification programs/register for certifications/ premium features for certified users |
| | cloud infrastructure services | Google Cloud services | Google Cloud/ infrastructure/ AI products/Compute Engine  storage fees |

# 2.5 Taxonomy Evaluation

## 2.5.1 BigML

*Table 19:BigML's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Deployment Flexibility | Self-managed | Private deployment options | Private Deployments/On-premises/Self-managed versions/virtual private cloud |
| | Pre-configured | Cloud-based access | Cloud-based/Instant access/Multi-tenant versions/auto-scalable/pre-configured |
| User Control | Full control with AutoML option | Customizable workflows/Automated optimization/Manual model tuning | WhizzML scripts/API-first/Modular algorithms/OptiML automation/1-click models/Scriptify workflows/Parameter customization/Interactive trees/Exportable models |
| Complementary Services | Yes | Training & support | Personalized training/Certifications/24x7 support |
| Model Deployment | Hybrid | Flexible deployment | Edge devices/IoT integration/Embedded models/Edge APIs/Public cloud/Virtual Private Cloud/multi-tenant/instant cloud access |
| ML Scope | Predictive | Supervised learning | Classification/Regression/Time series/Clustering/Anomaly detection/Topic modeling/supervised learning/ unsupervised learning |
| Supported Activities | Development and operational focus | Full lifecycle support | Data preprocessing/Model deployment/Real-time predictions/batch predictions/retraining |
| Integrated Resources | mixed | development tools/datasets gallery/prebuilt models/AI assistant | 1-click ensembles/OptiML models/Exportable PMML/1-click ensembles/OptiML models/Exportable PMML/REST API/Python bindings/BigML Dashboard |
| External Resources | Marketplace | Shared resources | Public gallery/ Model marketplace/ Shared scripts/ Open datasets/ Community contributions |
| | Partner ecosystem | Technology integrations | Zapier/Google Sheets/Amazon Echo/Node-RED/ Third party APIs |
| Data Source | Both | User & third-party data | Customer uploads/Public datasets/AWS S3 integration/ Gallery imports/partner data/ URL uploads |
| Data Flow | On-demand | Batch processing | Batch predictions/One-time uploads/Manual triggers/scheduled jobs |
| | Continuous | Real-time streaming | API endpoints/ IoT data streams/ Auto-scaling/ Live predictions/ Webhook integrations |
| Data Type | Mixed data | Diverse input formats | Numeric data/Text data/Time-series data |
| Key Partners | Technology partners | Integration partners | AWS/Google Cloud/Zapier/Python ecosystem |
| | Academic/research institutions | Educational collaborations | Certification programs/University workshops/Research discounts/Research use cases |
| Customer Engagement | Self-service portal | User autonomy | Dashboard access/API documentation/Free trial/ webinars/user documentation & tutorials |

| | Communities | Knowledge sharing | Public gallery/User feedback/Webinars |
|---|---|---|---|
| | Customer support | Assisted services | 24/7 support/ Personalized training/ Dedicated chat/ Enterprise SLAs/ Onboarding |
| Industry Focus | Industry unspecific | Cross-sector use | Education/Healthcare/Finance/Telecom/Retail/Energy & commodities/ Industries/Technologies |
| Interface | Both | GUI & programmatic | Web interface/REST API/SDKs |
| Pricing Model | Consumption-based | Pay-as-you-go | Pay-per-prediction/Task credits/Auto-scaling costs |
| | Tiered pricing | Subscription plans | Free tier/Prime accounts/Enterprise plans/Student discounts |
| | Free trial | Limited access | 14-day trial/Unlimited models/No credit card |
| Revenue Streams | Direct sales | Platform subscriptions/setup fees | Prime accounts/Enterprise licenses/Customized assistance/Dedicated chat/Architect services/setup fees |
| | Ancillary services | training & certification | online workshops/ certification programs/professional training/in-situ training/consulting services |

## 2.5.2 Microsoft Azure AI

Table 20:Microsoft Azure AI's codebook

| Dimension | Characteristics | Axial codes | Open codes |
|---|---|---|---|
| deployment flexibility | pre-configured | Cloud-based AI services | Azure AI Foundry/pre-built models/Azure OpenAI/built-in tools/managed cloud services |
| user control | Configurable modular components | Customizable AI workflows | customize models/agent toolchain/fine-tune models/unified API/GenAIOps tools |
| | Full control on ML lifecycle | End-to-end AI lifecycle | full generative AI lifecycle/evaluate, customize, safeguard, operationalize/model retraining |
| machine learning scope | predictive | Traditional ML use cases | predictive maintenance/anomaly detection/customer behavior analysis/fraud detection |
| | generative | Advanced generative models | GPT-4 series/generative AI apps/RAG (Retrieval Augmented Generation)/Phi open models/multimodal AI |
| model deployment | hybrid | Multi-environment deployment | public cloud/edge AI/hybrid cloud/Azure Arc/on-premises integration |
| complementary services | yes | Integrated AI solutions | Azure AI Search/Azure AI Content Safety/Azure Bot Service/Immersive Reader/Metrics Advisor |

| | | | |
|---|---|---|---|
| supported activities | development & operational focus | Full AI lifecycle support | develop, train, deploy/monitor performance/govern resources/optimize AI apps/scale AI |
| Integrated resources | prebuilt models | prebuilt models | AI foundry/ foundational models |
| | tools | Generative AI studio | AI foundry |
| | AI assistant | AI assistance | AI chat/ AI agent/Azure container agent |
| | Managed cloud services | Automated AI infrastructure services | Azure Kubernetes Service/serverless functions/auto-scaling/Azure SQL Database/solution architects |
| External Resources | marketplace | Third-party AI solutions | Azure Marketplace/Hugging Face integration |
| | partner ecosystem | partner programs | partner solutions, ISV Success, |
| Data source | mixed | Multi-source data ingestion | customer data/third-party datasets/public datasets/enterprise data/real-time streams |
| data flow | continuous | Real-time AI processing | live data ingestion/stream analytics/real-time RAG/continuous monitoring |
| Data type | mixed data | Multi-modal AI support | text data/image data/sensor data/tabular data/speech data |
| key partners | technology partners | AI ecosystem collaborations | OpenAI/Hugging Face/Meta/Cohere/NVIDIA |
| | system integrators | integrated service vendors | partner solutions/ ISV Success/Managed Services Provider (MSPs) |
| customer engagement | self-service portal | DIY AI development | Azure AI Studio/pricing calculator/free trial/documentation/developer resources |
| | communities | Enterprise assistance | technical support/Azure Advisor/FinOps guidance/migration assistance/private offers |
| | customer support | Enterprise assistance | technical support/Azure Advisor/FinOps guidance/migration assistance/private offers |
| Industry focus | Industry unspecific | Cross-domain AI applications | healthcare AI/retail AI/financial services AI/manufacturing AI/telecom AI |
| interface | both | GUI + API access | Azure Portal/REST APIs/Python SDK/CLI tools/VS Code integration |
| pricing model | consumption-based | Pay-as-you-go AI | pay per API call/compute-hour billing/data egress pricing/reserved capacity discounts |
| | freemium | freemium | 30-day free trial/Azure credits/limited free tier/student discounts |

| | revenue streams | direct sales | Enterprise licensing | enterprise agreements/private offers/Azure reservations/volume discounts/custom model training/premium support/migration services |
| --- | --- | --- | --- | --- |
| | | indirect sales | partner programs | become a partner |
| | | ancillary services | Value-added AI services | AI consulting |

### 2.5.3 DataRobot

*Table 21:DataRobot's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
| --- | --- | --- | --- |
| deployment flexibility | both | Hybrid deployment options | Run anywhere (Covalent), on-prem support (Nutanix), multi-cloud (AWS/GCP/Azure) |
| user control | Configurable modular components | Customizable workflows | customize components/mix-and-match models/edit feature engineering |
| | Full control on ML lifecycle | End-to-end pipeline control | Python-defined DAGs/manual hyperparameter tuning/model hot-swapping |
| | Full control on ML lifecycle with optional AutoML | AutoML + manual override | automated feature engineering/manual model selection/algorithm benchmarking |
| machine learning scope | predictive | Traditional ML use cases | time series forecasting/anomaly detection/classification models |
| | generative | LLM-based workflows | RAG systems/LLM fine-tuning/prompt engineering/chatbots/content generation |
| model deployment | hybrid | Multi-environment support | public cloud + on-prem/NVIDIA NeMo guards/hybrid workflows |
| complementary services | yes | Value-added services | AI governance/compliance checks/model monitoring/LLM guards/human feedback tools |
| supported activities | development & operational focus | Full lifecycle management | model training → deployment → monitoring/CI/CD integration/version control |
| Integrated Resources | tools | Built-in development tools | GUI app builder/notebooks/feature engineering blueprints |
| | prebuilt models | Pretrained model library | NVIDIA NeMo models/LLM templates/time series recipes |
| | managed cloud services | Infrastructure management | auto-scaling GPUs/hosted embeddings/NVIDIA NIM integration |
| | mixed | Built-in development tools/ Pretrained model library/ Infrastructure management | GUI app builder/notebooks/feature engineering blueprints NVIDIA NeMo models/LLM templates/time series recipes auto-scaling GPUs/hosted embeddings/NVIDIA NIM integration |

| External Resources | marketplace | Third-party integrations | Hugging Face models/Slack chatbots/Salesforce apps/Databricks connectors |
|---|---|---|---|
| | partner ecosystem | Strategic alliances | NVIDIA co-engineering/SAP partnerships/AWS Bedrock integration |
| data source | both | Hybrid data ingestion | customer data/ synthetic data/vector DBs/external APIs |
| Data Flow | continuous | Real-time processing | live model monitoring/streaming predictions/dynamic retraining |
| data type | mixed data | Multimodal support | tabular + images + text/geospatial coordinates/time-series sensors |
| key partners | technology partners | Infrastructure providers | NVIDIA/AWS/GCP/Azure/Snowflake |
| | system integrators | Enterprise solutions | SAP/Tableau/Salesforce |
| customer engagement | self-service portal | DIY tools | GUI app builder/trial access/interactive dashboards |
| | customer support | Enterprise services | compliance documentation/governance guardrails/SLAs |
| Industry focus | Industry unspecific | vertical solutions | healthcare AI/financial forecasting/manufacturing yield optimization |
| interface | both | Dual access modes | APIs/SDKs/drag-and-drop UI/Streamlit/Shiny apps |
| pricing model | consumption-based | Pay-per-use | GPU cost tracking/token-based LLM billing |
| | tiered | Feature-based plans | enterprise vs. starter tiers/custom metrics pricing |
| | freemium | Freemium offering | 14-day trial/open-source Covalent |
| revenue streams | direct sales | Platform subscriptions | enterprise licensing/annual contracts |
| | indirect sales | partner revenue | partner programs/partner certifications |
| | ancillary services | Professional services | compliance consulting/custom app development |

## 2.5.4 VESSL AI

*Table 22:VESSL AI's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| deployment flexibility | self-managed | Managed infrastructure | fully managed cloud/pre-defined resources/managed AWS/managed storage/out-of-the-box |

| | | | |
|---|---|---|---|
| user control | Full control on ML lifecycle | Customizable workflows | YAML interface/CLI commands/web interface/custom resource specs/priority scheduling |
| machine learning scope | predictive | LLM focus | Llama fine-tuning/Stable Diffusion/chatbot deployment/text-to-image/RAG workflows |
| model deployment | hybrid | Multi-cloud support | any cloud/on-prem clusters/OCI cluster/AWS/Google Cloud/spot instances |
| complementary services | yes | Integrated tools | Vertex AI integration/Slurm alternative/NVIDIA NIM/Hugging Face/LangChain/Pinecone |
| supported activities | development & operational focus | End-to-end MLOps | training to deployment/CI/CD pipelines/model monitoring/auto-scaling/data preprocessing |
| Integrated Resources | mixed | Prebuilt assets | VESSL Hub models/Hugging Face datasets/NVIDIA NeMo/pre-configured YAMLs/Stable Diffusion templates |
| External Resources | marketplace | Model hub | VESSL Hub/open-source models/Hugging Face/community templates/third-party integrations |
| data source | mixed | Hybrid data | GitHub code/S3 datasets/user-provided data/Hugging Face/on-prem storage |
| Data Flow | on-demand | Dynamic access | instant HPC access/mount datasets/export artifacts/real-time monitoring/on-demand scaling |
| data type | mixed data | Multimodal support | text/natural language/visual data/time-series/speech (Whisper)/sensor data |
| key partners | technology partners | Cloud/GPU providers | Google Cloud/NVIDIA/Oracle/AWS/Lambda |
| | academic/research institutions | free for academic | VESSL AI for Academics/free academic program/KAIST/McGill/MIT |
| customer engagement | self-service portal | Developer tools | web console/CLI/YAML config/free academic plan/community docs |
| | communities | communities | slack channel/community |
| Industry focus | Industry unspecific | Cross-domain | academic research/autonomous driving/healthcare/generative AI startups/enterprise AI |
| interface | both | Unified interfaces | web dashboard/Python SDK/REST APIs/YAML definitions/CLI commands |
| pricing model | consumption-based | consumption based | reserved instances, credits/hour, |
| | tiered | paid and free tier | pay-as-you-go/free academic plan/reserved instances/credits/hour/custom invoicing |
| | freemium | free for academic | VESSL AI for Academics/free academic program/KAIST/McGill/MIT |
| revenue streams | direct sales | Enterprise sales | custom pricing/dedicated support/SLAs/onboarding services/tailored MLOps |

## 2.6 Taxonomy Analysis

### 2.6.1 Alibaba ML Platform for AI

*Table 23: Alibaba ML Platform for AI's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| deployment flexibility | self-managed | Hybrid deployment options | Cloud-native platform/Elastic scaling/On-premises integration |
| | pre-configured | Ready-to-use templates | Model Gallery/Prebuilt templates/Drag-and-drop components |
| user control | Configurable modular components | Customizable workflows | Custom labeling templates/Adjustable parameters/Modular algorithm components |
| | Full control on ML lifecycle | End-to-end pipeline control | Whole-process AI engineering/Manual model tuning/Workflow customization |
| | Full control on ML lifecycle with optional AutoML | Automated + manual options | AutoML components/Predefined algorithms/Custom frameworks |
| machine learning scope | predictive | Traditional ML use cases | Regression models/Classification/Risk control |
| | generative | Generative AI capabilities | Stable Diffusion/LLM deployment/Image generation |
| | both public/private cloud | Cloud + edge options | Public cloud deployment/Edge optimization/Hybrid resource scheduling |
| complementary services | yes | Additional support/services | 1-on-1 presale consultation/24/7 technical support/Managed labeling services |
| supported activities | development and operational focus | Full lifecycle management | Model training/Inference deployment/Data labeling |
| Integrated Resources | tools | Built-in development tools | PAI-Designer/PAI-DSW/Jupyter Notebook |
| | prebuilt models | Model repository | Qwen models/Wan series/140+ built-in algorithms |
| | managed cloud services | Cloud-native infrastructure | PAI-EAS/PAI-DLC/Elastic Algorithm Service |
| External Resources | marketplace | Third-party integrations | AI Marketplace,  Model Gallery/Cisco Meraki vMX/Fortinet integrations, Marketplace onboarding |
| | partner ecosystem | Partner ecosystem, | ISV solutions/Alibaba Cloud AI Alliance/Nexus Partner Program/ISV Go-To-Market/Co-Sell agreements/Reseller partnerships/Private deployment options/Custom SaaS solutions/Branded integrations |
| data source | mixed | Customer + third-party data | Enterprise knowledge base/Custom datasets/Public datasets |
| Data Flow | continuous | Real-time processing | Online inference/Streaming data/Real-time monitoring |

| data type | mixed data | Multimodal support | Text/image/video/Sensor data/Structured/unstructured |
|---|---|---|---|
| key partners | technology partners | Integrations with tech providers | Cisco Meraki/Palo Alto Networks/Red Hat |
| | academic/research institutions | Collaborations | Research partnerships/Open-source contributions |
| customer engagement | self-service portal | console and portals | PAI Console/API documentation/Billing dashboard |
| | communities | community forum | Developer forums/Learning Path courses/Certification programs |
| | customer support | sales and assistance | 1-on-1 presale consultation/Submit a ticket/18-hour response SLA/Dedicated technical experts/24/7 partner support/Solution validation |
| Industry focus | Industry unspecific | Cross-industry applications | E-commerce/Finance/Healthcare/Gaming |
| interface | both | GUI + programmatic access | Graphical Designer/REST APIs/Python SDK |
| pricing model | consumption-based | Pay-as-you-go | Per-hour billing/Resource-based pricing/Inference duration fees |
| | tiered | Subscription plans | Free tier/Enterprise plans/Volume discounts |
| revenue streams | direct sales | Platform subscriptions | PAI-EAS pricing/DSW hourly rates/DLC job costs |
| | ancillary services | Value-added services | Outsourced labeling/Premium support/Training certification |

## 2.6.2 Jfrog ML

Table 24: Jfrog ML's codebook

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| deployment flexibility | self-managed | Infrastructure control | your own infrastructure/multi-cloud support/hybrid deployments/self-hosted option/streaming feature store |
| | pre-configured | Out-of-box solutions | out-of-box approach/unified solution/prebuilt integrations/native support/one-click deployment |
| user control | Configurable modular components | Customizable workflows | feature lifecycle management/prompt engineering/model fine-tuning/API endpoints/A/B testing |
| | Full control on ML lifecycle | End-to-end management | model training/deployment monitoring/feature engineering/batch inference/experiment tracking |
| | Full control on ML lifecycle with optional AutoML | Automated optimization | AutoML integrations/scalable serving/model registry/automated scans/vector store |
| machine learning scope | predictive | Traditional ML | classic ML/feature store/model testing/batch inference/numeric data |

| | generative | Advanced AI support | LLM applications/generative AI/prompt management/embedding models/NVIDIA NIM |
|---|---|---|---|
| model deployment | both public/private cloud | Multi-environment support | multi-cloud deployments/edge nodes/hybrid infrastructure/AWS/GCP native/private CDN |
| complementary services | yes | Enhanced support/services | Gold Support/Platinum Support/consulting services/training programs/community forum |
| supported activities | development and operational focus | Lifecycle coverage | build to monitor/DevSecOps integration/model lifecycle/secure SDLC/production monitoring |
| Integrated Resources | tools | development tools | experiment tracking tools.CLI plugins/API endpoints/ DevOps Integration/ DevSecOps tools/ CI/CD pipelines/Artifactory integration/Security Scanners |
| | prebuilt models | third party models | NVIDIA NIM models/Hugging Face LLMs/open-source embeddings/Custom Model Hub/fine-tuned models/enterprise embeddings/versioned binaries |
| | managed cloud services | managed cloud services | AWS/GCP native/multi-cloud serving/Kubernetes orchestration/ Infrastructure Handling/scalable inference/private CDN/edge node support |
| External Resources | partner ecosystem | Collaboration networks | technology partners/NVIDIA integration/cloud partners/consulting partners/GitHub integration |
| data source | mixed | Dual sourcing | customer data/third-party models/NVIDIA datasets/open-source components/feature store inputs |
| Data Flow | continuous | Real-time processing | streaming features/real-time metrics/continuous deployment/live monitoring/API serving |
| data type | mixed data | Multi-format support | textual prompts/numeric metrics/visual embeddings/sensor data/model binaries |
| key partners | technology partners | Strategic alliances | NVIDIA Enterprise/AWS/GCP/Hugging Face/GitHub/Kubernetes |
| | system integrators | Implementation support | consulting partners/channel partners/DevOps integrators/cloud providers/enterprise architects |
| customer engagement | self-service portal | DIY tools | developer portal/community resources/API/SDK docs/free courses |
| | customer support | Premium assistance | 24/7 SLA/ticket portal/professional services/on-site engagements/help center |
| Industry focus | Industry unspecific | Broad applicability | Fortune 100 customers/multi-industry/enterprise-scale/global deployments/use-case agnostic |
| interface | both | Dual access methods | graphical UI/REST API/CLI tools/SDK integrations/web portal |

| pricing model | tiered | | Pro/Enterprise tiers/annual contracts/custom pricing/add-ons/free trial |
|---|---|---|---|
| | | Scalable plans | |
| revenue streams | direct sales | B2B monetization | subscription plans/enterprise licenses, |
| | indirect sales | | |
| | ancillary services | complementary services | premium support/training fees/consulting revenue |

### 2.6.3 H2O.ai

Table 25: H2O.ai's codebook

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| deployment flexibility | self-managed | Hybrid deployment options | Hybrid cloud/On-premises/Air-gapped/Customer VPC/Kubernetes |
| | pre-configured | Managed cloud services | Fully managed/SOC2 compliant/Single-tenant/Multi-layer security/Automated scaling |
| user control | Configurable modular components | Customizable AI apps | Low-code Python/Auto-generated code/Tailored apps/API integrations/Modular workflows |
| | Full control on ML lifecycle | End-to-end lineage | Experiment tracking/Model registry/Deployment logs/Metadata retention/Reproducibility |
| | Full control on ML lifecycle with optional AutoML | Automated feature engineering | Driverless AI/AutoML/Hyperparameter tuning/Model validation/Automatic selection |
| machine learning scope | predictive | Industry-specific analytics | Fraud detection/ Risk assessment/ Credit scoring/ Churn prediction/ Demand forecasting |
| | generative | Multimodal AI | Document AI/ Text generation/ Image RAG/ Code assistant/ JSON generation |
| model deployment | Hybrid | Multi-environment support | Cloud VPC/On-premises/Air-gapped/Kubernetes clusters/Edge compatibility |
| complementary services | yes | Professional services | Consulting/Custom AI solutions/Training programs/Support services/Implementation guides |
| supported activities | development and operational focus | MLOps integration | Model monitoring/ Drift detection/ Bias alerts/ High availability/ Real-time scoring |
| Integrated Resources | tools | AutoML platforms | H2O-3/Driverless AI/Feature Store/LLM Studio/Document AI |
| | prebuilt models | Fine-tuned SLMs | H2O Danube/Mississippi-2B/Kaggle models/Open-source LLMs/Distilled models |
| | managed cloud services | Fully hosted solutions | SOC2 compliance/HIPAA adherence/Encryption/Dedicated environment/Automated updates |
| External Resources | marketplace | AI app store | GenAI apps/Fraud detection/Complaint summarizer/Procurement GPT/Custom apps |

| | partner ecosystem | Technology integrations | AWS EKS/Azure AKS/Google GKS/Red Hat OpenShift/HPE Ezmeral |
|---|---|---|---|
| data source | customer | Enterprise data usage | User-provided datasets/Financial history/Patient records/Transaction logs/CRM data |
| | both | Hybrid data ingestion | Third-party APIs/Open-source datasets/Partner data/Public benchmarks/Synthetic data |
| Data Flow | continuous | Real-time processing | Live scoring/Streaming analytics/Dynamic updates/API calls/Event-driven pipelines |
| data type | mixed data | Multimodal inputs | Text/Images/Tabular data/Time-series/Audio transcripts |
| key partners | technology partners | Cloud providers | AWS/Azure/GCP/NVIDIA/Apache Spark |
| | system integrators | Enterprise solutions | Accenture/Deloitte/HPE/Red Hat/Kubernetes experts |
| | academic/research institutions | Kaggle collaborations | 20+ Grandmasters/Research papers/Open-source contributions/Hackathons/University programs |
| customer engagement | self-service portal | AI Cloud access | Documentation/Tutorials/Sandbox environment |
| | communities | Open-source forums | GitHub/Gitter/LinkedIn groups/User meetups/Webinars |
| | customer support | Dedicated assistance | 24/7 support/Success programs/Proactive outreach/Multi-channel (email/chat/phone)/SLAs |
| Industry focus | Industry unspecific | Cross-industry solutions | Banking/Healthcare/Telecom/Retail/Insurance |
| interface | both | GUI and APIs | No-code UI/Python SDK/REST APIs/CLI tools/Dashboard visualizations |
| pricing model | consumption-based | Pay-per-use options | Token pricing/GPU-hour billing/Query costs/Dynamic scaling/Cloud credits |
| | tiered | Enterprise subscriptions | Premium features/Dedicated support/Custom SLAs/Advanced security/Compliance packages |
| | freemium | Open-source tier | H2O-3 free/Community edition/Limited features/Trial licenses/Sample datasets |
| revenue streams | direct sales | Enterprise licenses | Driverless AI subscriptions/Cloud hosting fees/Per-seat pricing/Add-ons/Custom deployments |
| | ancillary services | Training and consulting | Certification programs/Workshops/Implementation services/Audit support/MRM (Model Risk Mgmt) |

## 2.6.4 Cloudera AI

*Table 26: Cloudera AI's codebook*

| Dimension | Characteristics | Axial Codes | Open Codes |
|---|---|---|---|
| | | | |

| | | | |
|---|---|---|---|
| deployment flexibility | self-managed | On-premises deployment | Cloudera AI on premises/ Operates inside data center/ Red Hat OpenShift integration |
| | pre-configured | Cloud-native service | Cloud-native portable experience/ Multi-cloud ready/ AWS/ Azure/ GCP managed |
| user control | Configurable modular components | Modular AI tools | Containerized workspaces/ RAG Studio/ Fine-tuning studio |
| | Full control on ML lifecycle with optional AutoML | Customizable workflows/Automated pipelines | End-to-end ML lifecycle/ Model governance/ Track model-data lineage/ Accelerators for ML Projects/ Automated model retraining/ Pre-built AMPs |
| machine learning scope | predictive | Traditional ML | Churn modeling/ Anomaly detection/ Flight cancellation prediction |
| | generative | LLM support | GenAI applications/ RAG workflows/ Synthetic data generation |
| model deployment | hybrid | Multi-cloud + on-prem | True hybrid architecture/ Data anywhere/ Portable workloads/Multi-cloud ready/ AWS/ Azure/ GCP managed |
| complementary services | yes | Integrated tools | Cloudera Data Warehouse/ SDX for models/ Unified governance |
| supported activities | development operational focus | MLOps integration | Model monitoring/ Continuous metrics/ Production-grade serving |
| Integrated Resources | tools | End-to-end toolkit | Spark-on-Kubernetes/ SQL editor/ Drag-and-drop visualization |
| | prebuilt models | AMPs (Accelerators) | One-click AMPs/ Pre-built reference examples/ Knowledge distillation |
| | managed cloud services | Cloud-native infra | Elastic autoscaling/ Kubernetes orchestration/ EKS/ AKS/ GKE support |
| External Resources | partner ecosystem | Technology integrations | NVIDIA NIM/ HuggingFace Spaces/ Amazon Bedrock |
| data source | both | Hybrid data access | Proprietary data/ Enterprise data lake/ Third-party vector DBs |
| Data Flow | continuous | Real-time pipelines | Streaming data distribution/ Real-time inference/ Event-driven workflows |
| data type | mixed data | Multi-modal support | Text summarization/ Image analysis/ Video classification |
| key partners | technology partners | Vendor integrations | NVIDIA/ Apache Iceberg/ Pinecone |

| | | | |
|---|---|---|---|
| | system integrators | Implementation support | Professional Services/ Resident Solutions Architect/ SmartPrivate deployment |
| customer engagement | self-service portal | User-friendly UI | User onboarding/ Documentation/ guides/ AMP documentation/ Getting started/ Browse catalog/ On-demand webinars/ Watch video |
| | communities | community events | Cloudera Community/ Gartner PeerInsights/ Partner showcase/ ClouderaNOW event |
| | customer support | dedicated assistance | Contact sales/ Professional Services/ Resident Architect |
| Industry focus | Industry unspecific | Domain wide use cases | Banking/ Healthcare/ Retail/ Telecom |
| interface | both | GUI + APIs | Interactive applications/ Point-and-click interface/ Graphical dashboards/ REST endpoints/ SDK/ API access |
| pricing model | consumption-based | Pay-as-you-go | Scale dynamically/ Pay for compute used/ Elastic pricing |
| | freemium | Limited access | 5-day free trial/ Use case pilots/ No-cost onboarding |
| revenue streams | direct sales | Enterprise subscriptions | Contact sales/ Enterprise plans/ Managed services |
| | ancillary services | Training/certification | Certification exams/ Professional Services/ Resident Architect |