Assessment Rubrics

Bootcamp Final Assignments · Amsterdam Data Academy · NLQF Level 6

This document describes the assessment criteria for all ADA bootcamp final assignments. Each criterion is scored 0–3 and weighted to produce a raw score (max 300). Grading is conducted independently by two qualified assessors; scores are averaged to determine the final result. This document is published in connection with the ADA Examination Regulations.

Grading scale (max 300 points — scale: 0 = Insufficient, 1 = Needs Improvement, 2 = Sufficient, 3 = Good)

Score	Result	Meaning
255 – 300	**Excellent**	Outstanding work demonstrating mastery.
210 – 254	**Good**	Exceeds requirements with clear quality.
165 – 209	Sufficient	Meets requirements at the expected level.
0 – 164	Insufficient	Does not meet minimum requirements.

A51 · Final Assignment – Data Analytics Bootcamp

Block: Bootcamp · Examiner: Lucia / Fatemeh

Assessment: Slurpini case — Vivino dataset (Excel or Power BI)

Criterion	Wt.	Good (3)	Sufficient (2)	Needs Improvement (1)	Insufficient (0)
Data Cleaning & Preparation	**15%**	**Documented cleaning pipeline; enrichment present; fully reproducible.**	Dataset correctly cleaned: duplicates removed, types corrected, missing values handled.	Basic cleaning performed but undocumented; some issues remain.	Dataset barely cleaned; NaN values, duplicates and type errors present.
Descriptive Metrics & Insight Quality	**20%**	**Deep multi-layered analysis with statistically grounded insights, prioritised by business impact.**	Multiple well-structured metrics with actionable insights and cross-dimensional comparison.	Clear descriptive metrics with logical segmentation (by region, grape variety).	Metrics incorrect or only superficially descriptive without segmentation.
Dashboard Design & Visualisation	**25%**	**Executive-level dashboard: storytelling structure, KPI indicators, colour-coded exceptions.**	Professional dashboard with strong visual clarity, hierarchy and consistency.	Structured dashboard with readable charts and appropriate labels.	Charts unclear, poorly formatted or no logical dashboard structure.
Use of Analytical Tools (Pivot / DAX / Formulas)	**20%**	**Power Query documented; DAX measures for complex KPIs; reusable templates.**	Advanced use of pivots, filters and calculated fields; slicers correctly linked.	Correct use of pivot tables and calculated measures; basic filters present.	Incorrect or minimal tool usage; manual calculations where formulas required.
Business Interpretation & Recommendations	**20%**	**Strategic recommendations with ROI indication and risk considerations for Slurpini.**	Prioritised recommendations aligned with Slurpini wine producer selection strategy.	Recommendation linked to data-driven insights.	Descriptive only; no recommendations provided.

A52 · Final Assignment – Data Science & Python Bootcamp

Block: Bootcamp · Examiner: Akos / Ali

Assessment: Slurpini case — Vivino dataset · Python (pandas / seaborn / matplotlib)

Criterion	Wt.	Good (3)	Sufficient (2)	Needs Improvement (1)	Insufficient (0)
Data Cleaning & Preparation	**20%**	**Fully reproducible cleaning pipeline; enrichment; data quality control log present.**	Systematic cleaning with documented assumptions; grape variety and region correctly derived.	Data correctly cleaned and structured; choices briefly justified.	Dataset poorly cleaned; fundamental errors in analysis due to dirty data.
Custom Value-for-Money Metric	**25%**	**Mathematically rigorous metric; multiple variants compared; sensitivity analysis; reusable function.**	Well-justified composite metric with mathematical reasoning and normalisation.	Working custom metric combining rating and price.	No original metric; only standard averages used.
Analytical Depth	**20%**	**Statistical foundation: correlation analysis, clustering, distribution analysis; surprising insights named.**	In-depth analysis: correlations, outliers, time trends and cross-dimensional comparison.	Segmented multi-variable analysis by region and grape variety.	Only averages shown; no segmentation or pattern analysis.
Code Quality & Reproducibility	**20%**	**Production-quality code: classes, type hints, requirements.txt, reproducible with one run command.**	Modular, reproducible workflow; functions reusable; docstrings present.	Readable and logical code; notebook reproducible with random_state.	Unstructured script; notebook does not run top-to-bottom.
Business Recommendation	**15%**	**Strategic prioritisation matrix: top 5 producers with score, region, grape variety and justification.**	Clear prioritisation aligned with Slurpini efficiency goals.	Recommendation supported by analysis.	No clear recom mendation; conclusions vague.

A53 · Final Assignment – Data Engineering Bootcamp

Block: Bootcamp · Examiner: Marcel / Ali

Assessment: Slurpini case — Python crawler + ETL pipeline + analysis

Criterion	Wt.	Good (3)	Sufficient (2)	Needs Improvement (1)	Insufficient (0)
Crawler Extension	**25%**	**Production-grade crawler: async requests, retry logic, incremental updates, validation, logging.**	Robust crawler with error handling, pagination and rate limiting; 5+ new attributes.	Functional extension of crawler with at least 3 new relevant attributes.	Crawler incomplete; additional data points not or incorrectly collected.
Pipeline Automation	**20%**	**Fully automated pipeline: scheduler/orchestrator, idempotent execution, .env config, health monitoring.**	Automated modular pipeline with clear phase separation.	Structured pipeline script that chains steps together.	Manual steps required; no structured pipeline.
Data Structuring & Transformation	**20%**	**Data quality framework: schema validation, data lineage documented, versioned dataset.**	Normalised dataset with transformations (grape variety derived, region normalised).	Cleaned and structured dataset with correct types.	Raw data used directly without structuring.
Reproducibility & Documentation	**20%**	**One-click reproducible: Docker, requirements.txt, seed data, end-to-end test; fully documented.**	Fully reproducible and documented; README with setup and run instructions.	Clear documentation; pipeline reproducible with instructions.	Pipeline not traceable; workflow undocumented.
Technical Stability	**15%**	**Production-grade stability: rate limit handling, HTTP retry, empty response handling, logging.**	Robust under varying scenarios; basic errors handled.	Stable execution under normal conditions.	Script unstable; crashes on small variations in data.

A54 · Final Assignment – Applied AI Bootcamp

Block: Bootcamp · Examiner: Sam / Joost

Assessment: AI Sommelier Challenge — n8n or Make.com workflow + demo + documentation

Criterion	Wt.	Good (3)	Sufficient (2)	Needs Improvement (1)	Insufficient (0)
Sommelier Prompt Engineering	**20%**	**Production-grade prompt: modular template, system/user split, tested on 5+ dishes; complete iteration log.**	Iteratively refined prompt with edge case handling and documented improvements per version.	Structured prompt with clear role, wine portfolio context and output format.	Prompt vague, generic or not grounded in Slurpini wine data; inconsistent output.
n8n / Make.com Workflow Implementation	**25%**	**Production-ready workflow: error handling, logging, rate limit handling, clean node layout.**	Modular workflow with clear decision logic and minimum 5 connected nodes/modules.	Functional workflow accepting dish input, calling LLM API and returning recommendation.	Workflow incomplete or non-functional.
Wine Pairing Quality	**20%**	**Sommelier-level pairings: terroir knowledge, occasion context, serving tips, justified from data.**	Nuanced recommendations with flavour reasoning (acidity, tannins, weight) from tasting notes.	Correct recommendations with basic pairing explanation per dish.	Recommendations generic or incorrect for the dish type.
Edge Case Handling	**15%**	**All 3 edge cases robustly handled; fallback for unknown dishes; exception logic in prompt.**	All 3 required edge cases (vegetarian, spicy, dessert) handled with explicit reasoning.	At least 1 edge case correctly handled and documented.	No edge cases tested or handled.
Responsible AI Reflection	**10%**	**Structured governance analysis: bias sources, auditability, accountability, production recommendations.**	Critical analysis of governance, bias risks and production considerations.	AI risks (hallucination, dataset bias) identified with basic mitigation.	Minimal risk awareness.
Documentation & Demo	**10%**	**Board-ready: architecture diagram, prompt versions, test results, next steps; demo convinces jury.**	Professional documentation with 5+ test cases and results; demo runs live.	Clear workflow explanation with screenshot walkthrough; demo runs live.	Poor documentation; demo does not work.

A55 · Final Assignment – AI Engineering Bootcamp

Block: Bootcamp · Examiner: Ali / Rohit

Assessment: AI Sommelier Challenge — Python + vector DB + LLM + Streamlit/FastAPI

Criterion	Wt.	Good (3)	Sufficient (2)	Needs Improvement (1)	Insufficient (0)
RAG Pipeline Architecture	**20%**	**Production-grade: layered design, configurable parameters, clear component interfaces; architecture diagram.**	Well-designed modular pipeline with justified choices for chunking, embedding and retrieval.	Functional RAG pipeline: ingestion, embedding, vector store and retrieval correctly implemented.	No structured RAG pipeline; components missing or not working together.
Embedding & Vector Database	**20%**	**Production config: hybrid search, HNSW index, metadata schema documented; embedding benchmarked.**	Optimised indexing with metadata filtering (region, grape, price); top-k tuned for pairing quality.	Dataset correctly embedded and stored; basic similarity search functional.	Vector store not functioning or insufficiently indexed.
Grounded LLM Generation	**20%**	**Production-grade grounding: source citation with chunk IDs; anti-hallucination instructions; re-ranking.**	Grounded recommendations with pairing reasoning from tasting notes; source attribution present.	Retrieved wine chunks correctly injected into prompt; wine name and region cited in output.	LLM hallucinates; output not based on Slurpini data.
Wine Pairing Quality	**15%**	**Sommelier-level; all 3 edge cases robustly handled; qualitative evaluation shows improvement over baseline.**	Nuanced pairings including all 3 edge cases; reasoning traceable to retrieved data.	Correct recommendations with pairing explanation for standard test dishes.	Recommendations incorrect or not grounded in Slurpini data.
Evaluation & Technical Report	**15%**	**RAGAS framework or equivalent; latency benchmark; scalability analysis; cost-per-query; production roadmap.**	Systematic evaluation: retrieval precision, faithfulness; failure modes identified.	Basic evaluation of retrieval quality with 5 test queries; report present.	No evaluation; technical report absent.
Architecture Documentation & Demo	**10%**	**Production-quality: C4 diagram, swagger spec, Docker, README with deployment instructions; demo convinces.**	Professional documentation: README, setup instructions, 5 example queries with output.	Architecture diagram and working Streamlit/FastAPI demo present.	No architecture diagram or working interface.

Questions about your assessment? Contact support@amsterdamdataacademy.com · Full examination regulations: amsterdamdataacademy.com/examination-regulations