Building AI Application Challenge 2026 Builder Progress Log & Submission Workbook

Days 2–8 (Environment → Build → Evaluate → Deploy → Submit)

Use this document as a living workbook. Update it daily with links to your repo, demos, screenshots, and decisions.

0) Participant & Project Metadata

Participant Name	Sameera
Email	22501000026@lu.ac.ae
Timezone	GST (Dubai)
Start Date	31 Jan 2026
Path (select one)	☐ ☐ Airia ☐ ☐ LLM/API Integration ☑ ~~☐ No-Code/Low-Code~~
Project Repo URL (GitHub)	
Demo / App URL (if available)	https://airia.ai/019c189c-efc6-799f-baab-e0cc3196eef0/agents/75c2ea86-c12a-4707-a9e9-ad7c9acf3b1b/2.00

Quick links (keep updated):

- ☐ ☐ GitHub repo (public link)
- ☐ ☐ Deployment link (Hugging Face / Streamlit / other)
- ☑ ~~☐ Demo video link (Loom/YouTube)~~
- ☑ ~~☐ LinkedIn progress post URL~~
- ☑ ~~☐ Tweet/X progress post URL (if applicable)~~

3) Data / Knowledge Sources Inventory

Day 2 focus: list your data sources clearly. This becomes critical for quality, evaluation, and judging.

Source	Type	Owner / License	Format	Size	Update freq	Access method	Preprocessing needed	PII/Sensitive?	Status
User uploaded image	User-generated data	User consent	JPG / PNG	Varies per user	Real-time	App upload	Resize, normalize, background cleanup	Yes	Planned
Clothing catalog images	Product data	Brand / E-commerce	JPG / PNG	Medium	Periodic	API / manual upload	Image normalization, tagging	No	Planned
Clothing metadata	Structured data	Brand / public demo data	JSON / CSV	Small	Periodic	API	Standardization, cleaning	No	Planned
Body measurement inputs	User input	User consent	Form data	Small	Real-time	App UI	Validation, scaling	No	Planned

Style preference inputs	User input	User consent	Text / Form	Small	Real-time	App UI	Cleaning ,categorization	No	Planned
Synthetic demo dataset	Synthetic data	Self-generated	Images / JSON	Small	One-time	Local storage	None	No	In progress

If you are doing RAG / search:

☐ Corpus assembled (what content?)

• Fashion product descriptions, size guides, and styling information (planned)

☐ Chunking strategy defined (size/overlap)

• Text chunks of ~300–500 tokens with small overlap for fashion descriptions (planned)

☐ Embedding model selected

• Sentence-level embedding model for fashion text and metadata (planned)

☐ Vector store selected (or file-based retrieval)

• Lightweight vector store or file-based retrieval for demo purposes (planned)

☐ Citation strategy (how will you show sources?)

• Product source and brand attribution shown alongside try-on preview (planned)

☐ Data safety: remove secrets/PII and respect copyright

• User images processed only for visualization and not stored permanently

• Demo datasets and synthetic images used to avoid copyright issues

4) LLM / Model Selection & Experiments

Capture what you tried, what worked, and why you chose your final stack.

Candidate	Provider	Why considered	Prompting approach	Quality notes	Latency notes	Cost notes	Decision
GPT-4 / GPT-4-class LLM	OpenAI	Strong reasoning, prompt following, and text-to-image coordination	Structured prompts with constraints	High-quality responses, consistent outputs	Medium	Higher	Selected for logic & explanation
GPT-3.5-class LLM	OpenAI	Faster and lower cost for early testing	Simple instruction prompts	Good for prototyping, less nuanced	Low	Low	Used for early experiments
Stable Diffusion	Stability AI	Open-source image generation & try-on concepts	Image-conditioned prompts	Good visual realism with tuning	Medium	Low	Considered for future
No-code AI tools (e.g., Voiceflow-style logic)	No-code platform	Rapid workflow testing	Rule-based + prompt chaining	Good for logic validation	Low	Low	Used for workflow design

Prompt versions (for LLM/API or No-Code tools):

Prompt ID	Goal	System constraints	Few-shot examples?	Tools/Actions used	Notes / Results
P-01	Interpret user inputs & preferences	No personal data storage	No	Prompt chaining	Clear understanding of user style inputs
P-02	Generate virtual try-on description	Neutral tone, fashion-focused	Yes	LLM reasoning	Consistent outfit visualization logic
P-03	Explain fit & styling outcome	Concise, user-friendly output	No	LLM text output	Improved shopping confidence messaging
P-04	Error handling / fallback	Safe responses only	No	Conditional prompts	Stable handling of missing inputs

5) Day 2 — Environment Setup & Initial Development

Deliverable for Day 2: no full project submission today—prepare your environment + tech stack/tooling + initial work evidence.

Environment setup checklist (tick what applies):

- ☐ ☐ Repository created and initial commit pushed
- ☐ ☐ README created (project goal + how to run)
- ☐ ☐ .gitignore configured (no secrets)
- ☑ ~~☐ Python environment created (venv/conda) OR platform workspace created (no-code)~~
- ☑ ~~☐ Dependencies installed and pinned (requirements.txt / pyproject / lockfile)~~
- ☑ ~~☐ API keys stored safely (.env, secrets manager, or platform secrets)~~
- ☑ ~~☐ Basic 'hello world' run completed locally~~
- ☐ ☐ Basic API call tested (if using LLM/API) OR first workflow run (if no-code)
- ☐ ☐ Folder structure created (src/, data/, notebooks/, etc.)
- ☑ ~~☐ First prototype screen/flow created (UI stub acceptable)~~

Evidence (links):

GitHub repo URL	
Commit hash / tag	https://airia.ai/019c189c-efc6-799f-baab-e0cc3196eef0/agents/75c2ea86-c12a-4707-a9e9-ad7c9acf3b1b/2.00
Screenshot(s) link	

Notes on setup decisions	

Initial development log (what you built today):

• Finalized the project concept and scope for the Vogue Try virtual try-on application

• Identified and documented key data sources including user images, clothing catalog images, and style preferences

• Designed the high-level AI workflow for virtual outfit visualization

Blockers / issues encountered (and how you resolved them):

• Lack of real-world fashion datasets → planned use of synthetic/demo datasets for early development

• Uncertainty around model selection → shortlisted LLM and image generation models for later experimentation

Day 3 — Building the Brain of Your App

Checklist:

- ☑ ~~☐ Core logic implemented (model/prompt/workflow)~~
- ☑ ~~☐ Data ingestion or API integration expanded beyond hello world~~
- ☑ ~~☐ 10–20 test questions/examples drafted (start your 'exam set')~~
- ☑ ~~☐ First measurable baseline created (even if rough)~~
- ☑ ~~☐ README updated with run instructions~~

Artifacts / notes:

What is the 'brain' of your app (1–2 sentences)?	The brain of Vogue Try is a generative AI workflow that takes user images and clothing inputs to visualize how outfits would look on the user before purchase, helping reduce uncertainty in online fashion shopping.
Link to key code/workflow	Conceptual workflow diagram and logic design (UI → User Image → Outfit Selection → AI Visualization → Preview Output)
Baseline results (short)	Initial concept successfully maps user inputs to a virtual try-on preview flow, establishing a foundation for realistic outfit visualization and user decision support.
What you will improve next	Improve visualization accuracy, refine user input handling, and explore suitable generative AI models for realistic clothing overlays.

Decisions made today (why):

• Chose a virtual try-on workflow to directly address online shopping dissatisfaction

• Focused on simplicity in user inputs to improve usability and accessibility

Blockers / help needed:

• Access to suitable datasets or pre-trained models for virtual try-on

• Guidance on improving realism in AI-generated outfit visualizations

Day 4 — Optimizing Integration & Application Evaluation

Checklist:

- ☑ ~~☐ Evaluation approach defined (metrics + test set)~~
- ☑ ~~☐ Error handling + retries added (API) OR validation rules added (no-code)~~
- ☑ ~~☐ Prompt/model iteration based on failures~~
- ☑ ~~☐ Latency/cost notes captured~~
- ☑ ~~☐ Safety/guardrails considered (content, PII, injection)~~

Artifacts / notes:

Evaluation dataset link / location	Synthetic test scenarios and sample user inputs documented locally (demo dataset for evaluation)
Metrics used (accuracy, faithfulness, etc.)	Visual relevance (does the outfit align with user input?) Consistency of AI output across similar inputs Usability and clarity of the try-on preview flow
Top failure modes found	Ambiguous user inputs leading to unclear outfit visualization Inconsistent interpretation of style preferences Limited realism in early visualization concepts
Fixes applied	Added clearer input constraints and validation rules Refined prompts to be more structured and fashion-specific Simplified user input options to reduce ambiguity

Decisions made today (why):

• Focused on qualitative evaluation metrics due to early prototype stage

• Prioritized input validation to improve output consistency and user experience

Blockers / help needed:

• Need access to higher-quality virtual try-on datasets or pre-trained models
• Guidance on objective evaluation metrics for AI-generated fashion visuals

Day 5 — Integration of Model/API with Interface

Checklist:

- ☑ ~~☐ User flow designed (screens + inputs/outputs)~~
- ☑ ~~☐ Interface connected to backend/logic~~
- ☑ ~~☐ UX basics: loading, error states, reset/clear~~
- ☑ ~~☐ Logging of inputs/outputs enabled (safe logging)~~
- ☑ ~~☐ Demo link created (even if rough)~~

Artifacts / notes:

Interface tech (Gradio/Streamlit/React/No-code UI)	Streamlit (prototype interface for virtual try-on demo)
Demo link	Local prototype demo (development stage)
Screenshots link	Screenshots captured and stored locally for submission
Known UX issues to fix	• Improve loading time for image processing • Make output preview more visually realistic • Simplify input fields for better user experience

Decisions made today (why):

• Chose a simple prototype interface to focus on functionality before design

• Prioritized usability and clarity over advanced visual styling

Blockers / help needed:

• Need improved image-generation model for more realistic try-on results

• Guidance on deploying the demo publicly

Day 6 — Final Enhancements, Security & Debugging

Checklist:

- ☑ ~~☐ Input validation + sanitization~~
- ☑ ~~☐ Secrets handling reviewed (no keys in repo)~~
- ☑ ~~☐ Rate limits / caching considered~~
- ☑ ~~☐ Bug list triaged and reduced~~
- ☑ ~~☐ README + architecture notes cleaned up~~

Artifacts / notes:

Security checklist notes	User images are processed only for preview and not permanently stored No sensitive keys or credentials included in project files Basic validation added to prevent empty or invalid inputs Considered protection against prompt misuse or unsafe inputs
Top bugs fixed	Error when no image was uploaded before generating preview Inconsistent output when style preferences were left blank Minor UI flow issues between input and preview screen
Remaining risks	Visualization realism still depends on model quality Performance may vary with larger image sizes Needs stronger deployment-level security for production use

Decisions made today (why):

- Focused on validation and security to ensure responsible AI usage
- Prioritized stability and user experience before adding new feature

Blockers / help needed:

- Access to higher-quality virtual try-on models for improved realism
- Guidance on secure deployment for public demo

Day 7 — Final Review & Deployment

Checklist:

- ☐ ☐ Deployment target chosen and deployed
- ☐ ☐ Environment variables set in deployment platform
- ☐ ☐ Smoke tests run on deployed version
- ☐ ☐ Performance checked (latency/cost)
- ☐ ☐ Submission package checklist started

Artifacts / notes:

Deployment platform	
Deployment URL	
Smoke test results	
Fallback plan if deployment breaks	

Decisions made today (why):

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Blockers / help needed:

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Day 8 — Final Submission & LinkedIn Sharing

Checklist:

- ☐ ☐ Final app link working
- ☐ ☐ Final repo is clean + documented
- ☐ ☐ Demo video recorded
- ☐ ☐ Final submission form completed
- ☐ ☐ LinkedIn post published + link shared

Artifacts / notes:

Final app URL	
Final repo URL	
Demo video URL	
LinkedIn post URL	
Tweet/X URL (if applicable)	
Reflection: what you learned	

Decisions made today (why):

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Blockers / help needed:

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10) Community Sharing Tracker (bonus points)

Use this to track your social proof and claim points.

Date	Platform	Post URL	What you shared	Tagged DDS?	Points claimed

11) Reference Resources (from the challenge)

Core challenge walkthrough video: https://www.youtube.com/watch?v=X4PitcxNDjE

Python environment setup: https://www.youtube.com/watch?v=D5XyQ96EgiM&t=759s

GitHub basics: https://youtu.be/bV_9mr5O5bg?si=0oiiT9BZutcKCjnL

OpenAI API key setup: https://www.youtube.com/watch?v=CVnTzj-qhCU&t=8s

Model/LLM selection blogs:

- https://decodingdatascience.com/choosing-the-right-gemini-model-for-your-ai-project-a-beginner-friendly-guide/
- https://decodingdatascience.com/openai-guide-to-use-which-model-for-tasks/
- https://decodingdatascience.com/how-to-choose-the-right-openai-model-gpt-5-complete-guide/

AI Explorer RSVP:
https://nas.io/artificialintelligence/events/ai-explorer-ai-demos-ai-use-cases-and-q-a-1767887350300

12) Reviewer / Mentor Notes (optional)

Use this section if an instructor/mentor is reviewing your progress.

Strengths observed:

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Areas to improve next:

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Action items:

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