

Final Project

AGENTIC AI BOOTCAMP

Agentic AI Bootcamp – Capstone Project Guideline

1 Objective

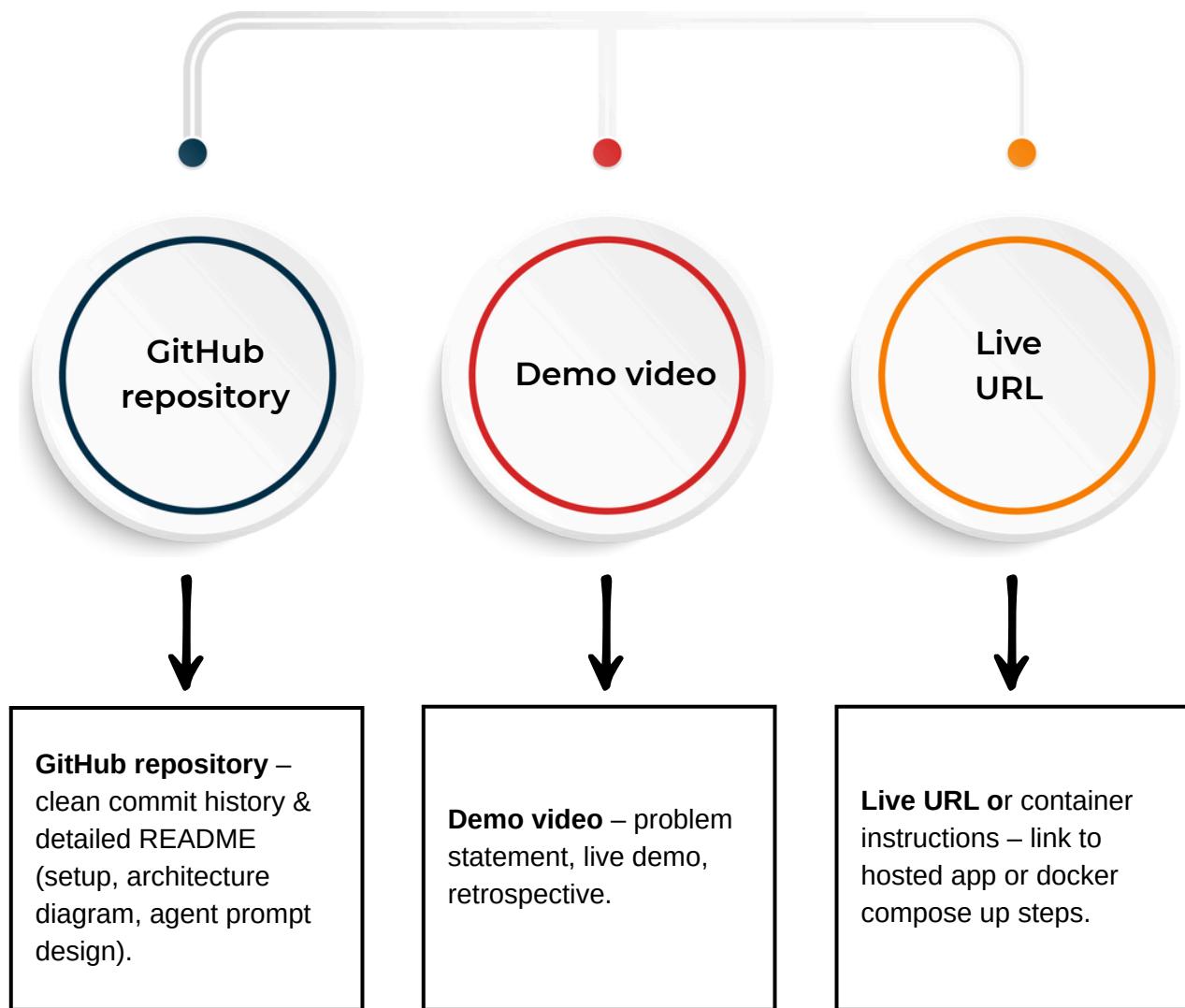
Design and ship an end-to-end agentic application that demonstrates a real-world use case (beyond a generic chatbot or simple RAG). Your solution must include:

- A polished user interface (gradio/streamlit) that surfaces agent functionality and user feedback loops.
- A production-ready backend that orchestrates agents, connects to external tools/APIs, and persists data.
- An agent layer built with CrewAI or LangGraph / LangChain Agents.
- At least two external tool integrations (APIs, databases, or SaaS services).
- Automated tests, observability (logging/tracing).

2 Minimum Technical Requirements

Layer	Requirement
UI	Gradio/Streamlit, intuitive flows, and error states.
Backend	FastAPI, secure secrets management, Dockerfile (in case).
Agent Framework	CrewAI or LangGraph / LangChain Agents.
Tooling	≥ 2 external APIs (e.g. MCP, weather, Twilio, vector DB, IoT device).
Observability	LangSmith/LangFuse traces, structured logs, basic metrics dashboard.
Deployment	Docker-compose/ FastAPI & deploy (Vercel, Huggingface, Replit GCP Cloud Run).

3 Deliverables



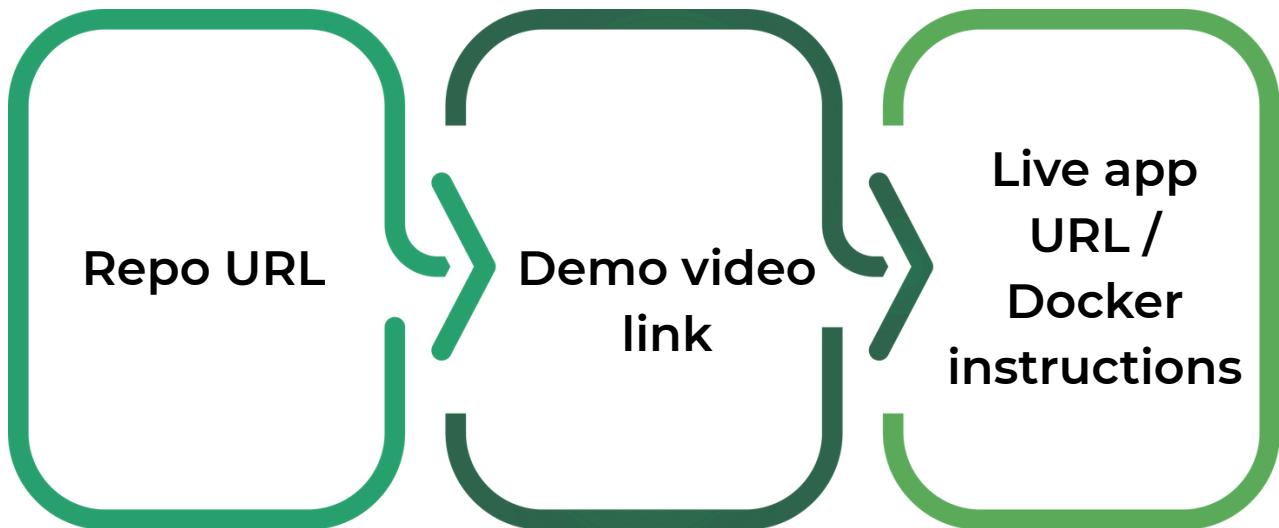
4 Evaluation Rubric (100 points)

Category	Points
Use-case relevance & impact	20
Agent reasoning & architecture depth	20
Tool/API integrations quality	15

Category	Points
UI/UX polish	15
Engineering excellence (code quality, tests, docs)	15
Deployment & DevOps	10
Presentation clarity & metrics	5

5 Submission Format

Upload all assets via GitHub.



6. Five Agentic Project Ideas

Revenue Operations Analyst (RevOpsAI)

Use-Case: Connects to CRM (HubSpot/Salesforce), email, and Stripe to summarise weekly pipeline health, forecast close probability, and auto-draft outreach tasks for reps.

Tools: CRM REST API, finance API, Slack messenger, LangSmith.

Personalised Meal & Grocery Planner

Use-Case: Generates weekly meal plans matched to dietary goals, creates grocery lists, and autopopulates cart via supermarket API.

Tools: Nutritionix, Instacart API, calendar integration.

Contract Risk Analyzer & Negotiator

Use-Case: Parses uploaded contracts, highlights risky clauses, suggests redlines, and sends revision emails to counterparties.

Tools: DocuSign, Microsoft 365 email, vector DB for precedent clauses.

Disaster Response Coordination Dashboard

Use-Case: Aggregates real-time weather, social media, and sensor feeds to propose evacuation routes and allocate resources for NGOs.

Tools: OpenWeather, Twitter/X API, ArcGIS mapping.

Multilingual Learning Path Generator

Use-Case: Builds adaptive study plans from MOOC/open-course catalogs, tracks progress, quizzes learners, and syncs to Google Classroom.

Tools: Coursera/edX APIs, translation API, Google Classroom.

Good luck—build something transformative and agent-driven!



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