

EDECS AI & Tech Division — 24-Hour Internship Case Study

Submission deadline: 24 hours later

1. Mission

Design and ship a **mini-prototype of an “AI Employee” for the built-environment (construction, real-estate, prop-tech, facilities-management, etc.)**.

Your agent should autonomously execute one tightly-scoped workflow that today is slow, manual, or error-prone.

2. What you must deliver

Item	Guideline
1-page problem brief	• Explain the real-world pain point. • Show who in the org feels it (role/persona).
Running prototype	• Any stack is fine (Python, JS/TS, Rust, Go...). • Must include an LLM call plus at least one external tool/API (file I/O, e-mail, DB, webhook, etc.). • Simple web UI or CLI is OK; polish is a bonus, not a requirement.
README (≤ 300 words)	• How to run locally (we’ll replicate). • Key design choices & known limitations.

3. Constraints & resources

1. **Timebox yourself:** aim for an 80/20 slice that proves the concept—not a full product.
2. **Data:** You may scrape public data, generate dummy data, or reuse open datasets (e.g., construction RFIs, real-estate listings).
3. **Tools you might explore (optional):** LangChain / LlamaIndex, Postgres/SQLite, PDF parsers, email libraries, simple vector DB (Chroma, Pinecone free tier).

4. Evaluation rubric (100 pts)

Bucket	Points	What we look for
Relevance & creativity	20	Does the use-case clearly matter to construction / RE?
Technical soundness	35	Clean code, sensible agent architecture, error handling, reproducibility.
Effective use of LLM + tools	20	Is the agent doing something non-trivial (calling APIs, writing files, sending emails, updating DB)?
UX & clarity	10	Is the interaction obvious (even if ugly)?
Written comms	10	Can we understand the idea in ≤ 5 minutes?
Bonus: extensibility	+5	Hooks or comments showing “next-step” thinking.



5. Submission

Email the repo link (public or invite m.ghaith@edecs.com) before the 24-hour mark. Late submissions lose 5 pts per hour.

Why this challenge?

At EDECS we're building agentic systems (knowledge-graph, RAG, digital twins) that touch messy, real-world workflows—RFIs, site diaries, bids, handover docs, property valuations, client emails. We need interns who can **frame a pain point, wire up an LLM, and ship a scrappy demo fast**.

About EDECS

EDECS is a premier construction and engineering company with over 30 years of experience, recognized for delivering innovative, sustainable, and high-quality projects. As a Grade A Contractor, EDECS operates in Egypt, Saudi Arabia (KSA), and United Arab Emirates (UAE), demonstrating expertise in marine, infrastructure, and building construction. EDECS consistently prioritizes safety, sustainability, and efficiency while fostering trust and long-term relationships with its clients. The company's reputation is built on its ability to manage complex projects, from design to execution, in a timely and cost-effective manner.