

Klutch AI Take-home Assignment: ChatGPT for Construction Docs

1. Goal

Design and prototype a ChatGPT-like assistant for the construction world, capable of answering factual, grounded questions based on a document provided by the user.

This AI should behave like a helpful site assistant - it doesn't hallucinate, and all its answers must come from real information in the documents it's given.

2. What We're Looking For

- Clear thinking: How you frame the problem and make decisions
 - Creativity in modeling or tool usage
 - A proof-of-concept or partial demo (code snippets, notebooks, or mini app)
 - Light code is OK - we care more about what you choose to build and why.
 - You don't have to build every feature, but we would love to see a functional demo for the key features
 - Feel free to use AI to assist your development
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3. The Assignment

a. Inputs

You'll work with a real construction document. The example is attached in the email.

Assume this is one of many documents a user might upload.

b. Task

Build a mini system that allows:

1. The user to **upload a PDF construction document**
2. The assistant to **answer factual questions grounded in that document**

Example user questions:

- What's the size of the bathtub on the second floor?
 - What type of cooktop is used for the kitchen?
 - Is weather stripping required for the doors?
 - What's the size of the house number?
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4. What You Should Submit

Please include the following in a single GitHub repo or ZIP:

1. **README:** Describe:
 - Your system architecture and reasoning
 - How your approach ensures factual grounding
 - What tradeoffs you made
 - How you would scale this
 2. **Prototype or sample code** (language of your choice):
 - This can be a small web app, a Jupyter notebook, or a script that shows the core idea working
 3. **Sample Q&A results** - Include at least 2-3 sample questions and the assistant's response
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5. Time Limit

We expect this to take **~3 hours**. You don't need to make it perfect — we just want to see how you think and build.

6. Submission

Please send your repo link or ZIP back to us within **48-72 hours** (or suggest a timeline that works for you).