

# SigmaValue Full Stack Developer Assignment

## **Assignment Details:**

**Deadline for Submission: 18th May 2025.**

- ✍ Technical Assignment: Build a Mini Real Estate Analysis Chatbot (React + Django)

- 📍 Objective:

Create a web-based chatbot interface that accepts user queries about real estate areas (e.g., "Analyze Wakad"), processes provided Excel data, and returns:

A short natural language summary (mocked or real via LLM)

A chart (price trend or demand comparison)

A data table (filtered from Excel)

- 📁 Provided:

A sample Excel file with real estate data (year, area, price, demand, size, etc.) – [find attached file]

Sample queries:

“Give me analysis of Wakad”

“Compare Ambegaon Budruk and Aundh demand trends”

“Show price growth for Akurdi over last 3 years”

## **✓ Requirements:**

- ◆ Backend (Django + Python):

Accept file upload or use preloaded Excel data

Parse Excel and filter data by area or user query

Respond with:

A basic text summary (mocked LLM output is fine for now)

JSON data for chart (e.g., price or demand per year)

A filtered table

- ◆ Frontend (React):

Chat-style or form-based UI

Input box for user query

## **Display:**

Text summary

Chart (use Chart.js, Recharts or etc)

Data table

- ◆ Bonus (Optional):

Connect to OpenAI API or any other LLM for real LLM-generated summaries

Add option to download filtered data

Deploy on Heroku, Vercel, Render or etc

 **Submission:**

GitHub repo with code + README

Live demo link (if deployed)

Short video (1–2 min) showing usage (optional)

 **Evaluation Criteria:**

Code structure and readability

Functional UI + backend integration

Correctness of data handling from Excel

Visualization clarity

Bonus for LLM integration or deployment