Installed on 'Kast' and on Agent's website

- Combination of open ended (AI powered) questions, pre set questions from an FAQ (e.g., property details, availability) along with predefined path/sequences/flow of the bot.
- Capture and qualify leads: Collect visitor details with targeted questions.
- Provide Instant Responses: Answer common real estate questions (e.g., “What’s the price of this property?” or “Can I schedule a visit?”).
- Quick Actions: Calendar Booking: Allow visitors to schedule meetings or property tours.
- Route Leads to Kast: Automatically sync captured leads into the Kast app for agents to manage.
- AI-Powered Responses: Use NLP to provide smarter, more personalized answers.

For AI Powered Aspects:

Training:

Data to be trained on will be provided by Kast or by the Agent.
- Ingest real estate agent's website, youtube, blog, podcasts, infographics, pdf research reports, documents, FAQ, calendar links, database of properties, (MAYBE API)
Data will be uploaded by the Kast Admin. Agent will not be involved in uploading.
No data will be uploaded by the end user.

Interaction

The goal will be to create unique interactivity and conversational abilities to the user to explore all the data that the bot is trained on. However the user will not know what kind of questions to ask. So we have to guide them along.

1) **Explore categories /Index/ Table of contents** : We can provide the user “Starting points” to converse with the bot by creating a list of possible things (categories/ table of contents). Each category can have it’s own type of questions.. E.g. “Get to know about Bruce” could have testimonials, success stories, agent’s bio etc.

2) **Market research trends and analysis**: Sometimes the agent will provide detailed pdf reports/ presentations which the bot can be trained on. These will contain dense info which the bot will have to be trained on to “tell a story”.
The story can be told in text with a combination of visuals/charts etc.

   E.g. What are the projections for 2025? What was the residential market like in Q4 2024? What did an average property sell for in Boston?
How many 2 Bedroom properties were sold in the Bay Area last year?

3) **Create Kastgpt**: Asking open ended questions on all the data:
Essentially the user should be able to ask any question on any of the data that the Bot is trained on collectively.

4) **Book appointments:** The agent will create an account on cal.kast.biz (or maybe they can also provide a calendly type link)

5) **Neighborhood Scout:** From the ingested data from web on a neighborhood (not just real estate related) the user can talk about the latest happenings/events/updated in the neighborhood.

—-- Data storytelling, guided flows and exploring/visualizing complex data—--

1. Problem: Users Don’t Know What to Ask or How to Interact

Goal: Provide intuitive guidance and inspire exploration without overwhelming users.

Innovative Solutions:

a. Interactive Starting Points (Guided Exploration)

- **How It Works:**
  - Display a carousel or clickable categories at the start of the conversation:
    - *“Explore my market expertise.”*
    - *“Learn about me.”*
    - *“Ask me about this neighborhood.”*
  - Each option branches into deeper paths with open-ended prompts:
    - *“Market Expertise” → “Ask about trends, property prices, or predictions.”*
    - *“Neighborhood” → “What’s it like living here? What schools are nearby?”*
- **Why It Works:**
  - Users are guided but retain freedom to explore organically.
  - Helps them see the bot’s capabilities without needing prior knowledge.

b. Conversational Nudges

- **How It Works:**
    - The bot provides suggestions mid-conversation based on user behavior.
        - Example:
            - User: *“What’s the average home price?”*
            - Bot: *“The average is $500K. Would you like to compare it to last year or learn about the luxury segment?”*
- **Why It Works:**
    - Keeps the conversation dynamic and steers users toward deeper insights.

c. Visual Map of Capabilities

- **How It Works:**
    - Integrate a mini-menu that highlights what the bot can do:
        - *“I can help you with: Market trends* | *Neighborhood insights* | *Property details.”*
    - This menu is accessible throughout the conversation.
- **Why It Works:**
    - Acts as a constant reminder of the bot’s capabilities.

d. Gamified Introduction

- **How It Works:**
    - Start the interaction with a short quiz or game:
        - *“What’s your biggest real estate question today? Choose one:”*
            - *“Buying advice.”*
            - *“Neighborhood info.”*
            - *“Market trends.”*
        - Based on the answer, the bot tailors the flow.
- **Why It Works:**
    - Low-pressure, engaging way to onboard users while subtly educating them.

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2. Problem: Market Research PDFs are Dense and Overwhelming

Goal: Simplify and enhance dense content with interactive storytelling and visual aids.

Innovative Solutions:

a. Data Summarization with Visual Narratives

- **How It Works:**
    - The bot breaks down dense PDFs into sections (e.g., *“Key trends,” “Sales data,” “Predictions”*).
    - Generates quick bullet-point summaries along with:
        - Charts (e.g., *“Here’s a graph of property sales over time.”*).

        - Infographics (e.g., *“This pie chart shows the market share of luxury homes.”*).
    - Users can ask to “dig deeper” into any section.
- **Why It Works:**
    - Converts dense stats into digestible, visual narratives.

b. Conversational Storytelling Mode

- **How It Works:**
    - Instead of dumping data, the bot uses conversational storytelling:
        - Example:
            - User: *“Tell me about Q4 2024.”*
            - Bot: *“In Q4, the residential market saw a 12% rise in prices, driven by demand for 2-bedroom homes. Would you like to see sales data or learn why this happened?”*
        - Bot integrates visual elements (charts, maps) mid-conversation to support the narrative. —>
- **Why It Works:**
    - Mimics how an expert would explain dense data, making it relatable.

c. Interactive PDF Explorer

- **How It Works:**
    - Users can “explore” the PDF interactively by choosing sections or querying tables:
        - Example:
            - *“Show me average prices by neighborhood.”*
            - Bot pulls data directly from the PDF and visualizes it as a bar graph.
- **Why It Works:**
    - Combines the power of AI with structured user exploration, making dense content accessible.

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3. Problem: Telling Better Stories with Generative AI

Goal: Use GenAI to craft compelling, immersive, and memorable narratives.

Innovative Solutions:

a. Personal Narrative Generation

- **How It Works:**
    - The bot crafts personalized stories for users based on their input:
        - Example:

        - User: *“What’s it like living in this neighborhood?”*
        - Bot: *“Imagine waking up to tree-lined streets, grabbing coffee from [Local Cafe], and enjoying the best schools in the city just a 10-minute drive away.”*
    - Allows agents to predefine stories, ensuring authenticity.
- **Why It Works:**
    - Transforms abstract data into relatable, humanized experiences.

b. Comparative Scenarios

- **How It Works:**
    - The bot generates comparisons between options:
        - Example:
            - User: *“Should I buy here or in [Another Neighborhood]?”*
            - Bot: *“In [Neighborhood A], you’ll find great schools and higher prices ($600K average). In [Neighborhood B], the vibe is more urban, with an average price of $450K. What matters most to you—schools or budget?”*
- **Why It Works:**
    - Helps users weigh decisions in a conversational and visual way.

c. Interactive Timelines

- **How It Works:**
    - The bot generates timelines based on trends:
        - Example:
            - *“Show me how prices have changed over 5 years.”*
            - The bot presents a timeline with key events (e.g., *“Prices peaked in 2021 due to high demand.”*).
- **Why It Works:**
    - Engages users with a mix of text and visuals, creating a compelling narrative.

d. Visual Storytelling Boards

- **How It Works:**
    - Users can ask the bot to “build a story” visually:
        - Example:
            - User: *“Show me why this neighborhood is great.”*
            - Bot creates a storyboard with:
                - Key stats (e.g., prices, crime rates).
                - Photos/maps (e.g., parks, restaurants).
                - Agent commentary (e.g., *“I love this area because of its vibrant community.”*).
- **Why It Works:**
    - Adds depth and creativity to static Q&A interactions.

Holistic UX Flow Example

1. **Start with Guided Exploration:**
    - User opens the chatbot.
    - Bot asks: *"How can I assist you today?"*
    - Options: *"Learn about this neighborhood," "Explore market trends," "Ask me anything."*
2. **Interactive Data Storytelling:**
    - User selects *"Market trends."*
    - Bot replies: *"In Q4 2024, prices rose by 12%. Here's a graph of property trends over time."*
    - Follow-up: *"Would you like to compare this to other neighborhoods?"*
3. **Hyperlocal Insights:**
    - User asks: *"What's it like living here?"*
    - Bot replies: *"This area is known for its walkability and top-rated schools. Would you like to see crime stats or upcoming events?"*
4. **Open-Ended Exploration:**
    - User pivots: *"Tell me about schools."*
    - Bot replies: *"Schools here rank in the top 10%. Here's a map of nearby options."*

—DATA CLassifications/ Buckets/

1. **Property Listings (Structured Data)**:
  - Use this data for property-specific questions like price, features, and availability.
-This can come from the website or even create an inventory of properties in a sheet/database → idea currently is to semi classify links using keywords from the page and let admin reclassify links as property listings or not in a web gui

2. **High Level Neighborhood Data(Unstructured Data)**:
  - Conversational data and insights from internal or external blogs, articles, pdf books on buying selling, or YouTube videos, or uploaded data in google docs.
-Neighbrohood APIs also available in some cases (TBD)
-This will sometimes also contain data, stats, numbers.

3. **Dense Market Research /Trends/ Analysis** (Structured and Unstructured Data)
-Typically PDFs provided by specific agents.--> dockling can do pdf to text for this
-APIs also available from data providers
-Databases with numbers/research/trends/insights —> dump the database tables to text using python frameworks

4. **FAQs (Agent-Specific and Generic)**:
   - Use these to answer common real estate questions.
 -This can come directly from the website (if the agent has FAQ on the website), or a separate file can be created

5. **Scheduling Information (Actionable Links)**:
   - Use this data to schedule tours or consultations, meetings.
-This can come from website directly, or provided separately as a text file

6. **Testimonials (Agent-Specific)**:
   - Use these to answer questions about agent's bio and reviews.
 -This can come directly from the website (if the agent has testimonials on the website), or a separate file can be created

When answering, identify the type of question and select the appropriate data source. Always end with an engaging question to keep the conversation going. → this is kind of experimented

What the Assistant Needs to Handle Diverse Data Sources

1. **Contextual Differentiation**:
    - Explicitly instruct the assistant on how to treat different types of data:
        - Website: Useful for general agent info, property listings.
        - Market Reports: Dense data requiring summarization and storytelling.
        - Calendar Links: Actionable, time-sensitive queries.
    - Without this, GPT might treat all data equally, leading to inconsistent responses.
2. **Intelligent Mode Switching**:
    - Introduce "modes" to adapt to user intents dynamically.
    - Example:
        - **Property Mode**: Prioritize property-specific details.
        - **Market Insights Mode**: Summarize trends from reports.
        - **Scheduling Mode**: Redirect to the calendar link.

3. **Advanced Prompt Engineering**:
    - Use detailed instructions to guide GPT on how to handle unstructured vs. structured data.
    - Example:

        - *“If the question mentions a property, prioritize using the following structured data. If it’s about market trends, summarize this report.”*

4. Expand Context Awareness

Tell GPT to maintain continuity in multi-turn conversations. For example:

- If the user asks a follow-up question, GPT should reference previous answers.
- Add a fallback mechanism for ambiguous questions.

5. Tailor the Engagement Strategy

Balance engagement and utility by varying the closing questions based on the mode. Examples:

- **Property Mode**: *“Would you like to schedule a tour or learn more about this property?”*
- **Market Insights Mode**: *“Is there a specific area or trend you’d like me to dive deeper into?”*
- **FAQs Mode**: *“Do you have other questions about the buying process?”*
- **Scheduling Mode**: *“Would you like me to connect you with [Agent’s Name] to confirm the appointment?”*