

Based on your document, here are **15-20 questions** that can be explored using **exploratory, geospatial, and sentiment analysis** in your **dashboard app**:

Exploratory Data Analysis (EDA) Questions

1. What are the average housing prices across different counties in Louisiana and Connecticut?
 2. How does crime rate correlate with property prices in each county?
 3. What are the top 5 safest and most dangerous counties based on crime data?
 4. How does household income vary across counties, and does it impact real estate pricing?
 5. What are the most common property types in each state? (Single-family homes, apartments, etc.)
 6. What is the distribution of rental vs. owner-occupied properties in different counties?
 7. Are there seasonal trends in real estate sentiment or property transactions?
 8. Which counties have the highest property appreciation rates over time?
 9. What is the average property tax rate in different counties, and how does it affect affordability?
 10. How do economic indicators like employment rates and GDP growth correlate with real estate activity?
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Geospatial Analysis Questions

11. How do crime rates vary across neighborhoods and counties? (Visualized on an interactive heatmap)
 12. What is the spatial distribution of high-value vs. low-value properties across the states?
 13. Which counties have the highest number of new real estate developments?
 14. How accessible are key amenities (hospitals, schools, shopping centers) from various real estate hotspots?
 15. What are the transportation options and commute times like in high-demand real estate areas?
 16. Are certain counties experiencing population growth or decline, and how does that affect real estate demand?
 17. Where are the most gentrified areas, based on income changes and property price increases?
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Sentiment Analysis Questions

18. What are the most discussed real estate topics on Reddit in relation to Connecticut and Louisiana?

19. How do people feel about buying/renting in different counties? (Positive vs. Negative sentiment trends)
 20. What are the major concerns buyers and renters have in these states? (Safety, affordability, job market, etc.)
 21. How does sentiment on social media correlate with actual property prices?
 22. Are there particular counties that have consistently positive or negative sentiment over time?
 23. What are the key phrases associated with positive and negative sentiments in real estate discussions?
 24. How do sentiment trends change over time? (e.g., do sentiments become more negative during economic downturns?)
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Dashboard Filters & Features

To make your **Streamlit dashboard** interactive and user-friendly, consider adding the following:

✓ **Filters:**

- State Selection (Connecticut, Louisiana)
- County Selection
- Property Type (Single-family, Multi-family, Commercial, etc.)
- Year Range for Property Trends
- Crime Rate Filters (Low, Medium, High)
- Sentiment Score Range (Positive, Neutral, Negative)

✓ **Visualization Suggestions:**

- **Heatmaps** for crime rate, affordability, and sentiment across counties
- **Bar charts** for average property prices, rental vs. ownership trends
- **Word clouds** for most discussed real estate topics
- **Time series plots** for sentiment trends and price changes over time
- **Interactive Maps** showing real estate trends, crime hotspots, and new developments

Would you like help in structuring the **Streamlit app layout** for this project? 🚀

MORE IDEAS:

Exploratory Data Analysis (EDA) Questions

1. What are the key demographic trends (population, income, age) in Louisiana and Connecticut counties?
2. How does housing affordability (e.g., median home price vs. income) vary across counties?
3. Which counties have the highest/lowest crime rates, and how does this correlate with property prices?
4. Are there significant economic disparities (e.g., unemployment, GDP) between urban and rural counties?
5. What are the most common property types (e.g., single-family, apartments) in each state?

Dashboard Filters:

- State (Louisiana/Connecticut)
- County dropdown
- Metric (income, crime rate, home price)
- Time period (if time-series data exists)

Viz Suggestions:

- Interactive maps with heatmaps for crime/affordability.
- Scatter plots (e.g., income vs. home price).

Geospatial Analysis Questions

6. Which counties have the highest density of real estate-related Reddit discussions?
7. How do proximity to amenities (schools, hospitals) and crime rates affect property values?
8. Are there geographic clusters of high-growth vs. declining neighborhoods?
9. How does flood risk (using geographic data) correlate with real estate demand?
10. Which counties are "hidden gems" (low crime, affordable, positive sentiment)?

Dashboard Filters:

- Radius selection (e.g., "Show properties within 5 miles of schools").
- Overlay toggles (crime, flood zones, amenities).
- Sentiment score slider (e.g., "Show areas with sentiment > 70% positive").

Viz Suggestions:

- Layered Leaflet/Plotly maps with markers for amenities/crime.
 - Choropleth maps for sentiment/crime by county.
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Sentiment Analysis Questions

11. What are the dominant positive/negative keywords in Reddit discussions about real estate in each state?
12. How does sentiment vary between urban (e.g., New Orleans) and rural counties?
13. Are there seasonal trends in sentiment (e.g., post-hurricane periods in Louisiana)?
14. Which counties have the most polarized opinions (high positive + high negative)?
15. Do crime rates correlate with negative sentiment in Reddit posts?

Dashboard Filters:

- Keyword search (e.g., filter posts containing "flood" or "schools").
- Sentiment polarity toggle (positive/neutral/negative).
- Date range slider for seasonal trends.

Viz Suggestions:

- Word clouds or bar charts for frequent keywords.
 - Line graphs for sentiment trends over time.
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Cross-Analysis Questions

16. Do counties with better economic metrics (income, jobs) have more positive sentiment?
17. How do "safe" counties (low crime) compare in price vs. sentiment?
18. Are there outliers (e.g., affordable counties with high positive sentiment)?
19. What demographic groups (age, income) are most active in Reddit discussions?

20. Can we predict property demand based on combined sentiment + crime + economic data?

Dashboard Filters:

- Combined metric filters (e.g., "Show counties where crime < X AND sentiment > Y").
- Predictive toggle (e.g., "Highlight high-potential investment areas").

Viz Suggestions:

- Correlation matrix heatmap.
 - Parallel coordinates plot for multi-metric comparison.
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Dashboard Recommendations

1. User-Friendly Filters:

- Dropdowns for states/counties.
- Sliders for quantitative metrics (price, sentiment score).
- Toggles to overlay geospatial layers (crime, amenities).

2. Interactive Visuals:

- Clickable map regions to drill down into county-level insights.
- Hover tooltips showing key stats (e.g., "County X: 60% positive sentiment, \$250k median home price").

3. Export Options:

- Downloadable reports (PDF/CSV) for stakeholders.
- Shareable links to specific filtered views.

4. Storytelling:

- Pre-built "narratives" (e.g., "Top 5 Affordable Safe Counties").

This approach ensures your dashboard is both exploratory and actionable for investors.