



Housing Market Dashboard Web Application

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Project Overview

This project presents an interactive web-based dashboard that analyzes housing market trends using **Tableau for data visualization** and **Flask as the web framework**. The goal is to create a responsive, user-friendly platform that allows users to explore housing data through charts, stories, and interactive insights.

Objectives

- Embed Tableau dashboards into a Flask-powered web app using HTML and CSS.
- Present key housing insights such as renovation impact, house age distribution, and feature trends.
- Create a seamless user experience through a visually appealing interface.

Key Features

- **Dashboard Overview:** Displays key metrics and KPIs.
- **Pricing Trends:** Shows how housing prices change over time and across regions.
- **Regional Comparisons:** Compares housing metrics between different areas.
- **Interactive Filters:** Lets users drill down into specific data points.
- **Data Sources:** Often sourced from platforms like Kaggle or government housing datasets.

Technologies Used

Tool	Purpose
Tableau Public	Create and publish dashboards & stories
Flask (Python)	Serve web pages and route between views
HTML & CSS	Structure and style the front end
VS Code	Develop and run the Flask application
JavaScript	Add slideshow functionality for story page

Folder Structure

```
housing-dashboard/ | ├── static/ | ├── style.css | ├── dashboard_chart.jpg | ├──
img1.jpg, img2.jpg, img3.jpg, img4.jpg | └── background.jpg | ├── templates/ | ├──
index.html # Homepage | ├── dashboard.html # Dashboard view | └── story.html #
Slideshow + Tableau story | ├── app.py # Flask logic and routing | └── README.md #
Project documentation
```

Web App Pages

1. Home (index.html)

- Styled landing page with background image and welcome message
- Navigation links to Dashboard and Story

2. Dashboard (dashboard.html)

- Displays key insights and a preview chart image
- Link to interactive Tableau dashboard
- Navigation back to homepage

3. Story (story.html)

- Interactive image slideshow using JavaScript
- Automatically redirects to full Tableau Story after last image
- Direct link provided for user access

Tableau Integration

Dashboard Embed:

- [Dashboard Link](#)

Story Embed:

- [Story Link](#)

Tableau visuals are hosted on Tableau Public and embedded in the app using and image previews.

Running the Application

Step-by-step:

1. Create a virtual environment:

```
python -m venv venv source venv/bin/activate # or venv\Scripts\activate on Windows
```

2. Install Flask:

```
pip install flask
```

3. Run the app:

```
python app.py
```

Access via browser:

```
http://127.0.0.1:5000/
```

Conclusion

This project demonstrates effective use of Tableau for data storytelling and Flask for web deployment. It offers a clean and user-centric interface that's ready for further enhancements like form inputs, filters, or animations.

If you'd like, I can also help you convert this into a professional PDF, or review any other content for SmartInternz submission. Great work, Kavya—this project really shows your attention to detail and flair for blending data with design!