

# Deployment Guide / User Manual

## Deployment Guide:

### Movie Recommendation System with Dashboards

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#### 1. System Requirements

- **OS:** Windows 10 or above
  - **Python Version:** 3.10+
  - **Power BI Desktop:** Latest version (for dashboard viewing)
  - **RAM:** Minimum 4 GB
  - **Internet:** Required for TMDB API poster fetching
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#### 2. Software/Library

- **Installation**

Use the following command to install required libraries:

- `pip install streamlit pandas numpy scikit-learn requests`
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#### 3. File & Folder Structure

File	Description
app.py	Main Streamlit file to run the web app
movie_list.pkl	Preprocessed movie metadata
similarity.pkl	Cosine similarity matrix
movies.csv	Original dataset
recommendations.csv	Stores movie suggestions

File	Description
dashboard.pbix	Power BI dashboard file

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## 4. Running the Web App (Streamlit)

1. Open terminal
  2. Navigate to project folder
  3. Run:
    - `streamlit run app.py`
  4. App will open in browser
  5. Select a movie and see recommendations with posters
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## 5. Using Power BI Dashboard

- I. Open dashboard.pbix in Power BI Desktop
  - II. Apply filters:
    - Genre
    - Year
    - Cluster
  - III. Explore:
    - Popular movies
    - Blockbuster vs Flop
    - Genre trends
    - Average rating, vote count etc.
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## 6. Common Errors and Fixes

Issue	Solution
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Issue	Solution
Poster not loading	TMDB API might be slow; check internet
Dropdown empty	Load movie_list.pkl correctly
Power BI slow	Apply limited filters, reduce data size
No recommendations	Check if movie name exists in list

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## 7. Additional Notes

- Poster images are loaded dynamically — app requires internet.
  - App can be hosted on Streamlit Cloud or deployed locally.
  - Dashboard works offline in Power BI Desktop once loaded.
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## Conclusion :

This guide will help anyone run the system smoothly and explore visual analytics without technical knowledge. It ensures the system is easy to use, test, and present during review or demonstration.