

MOVIE REVIEW ANALYZER

SUBMITTED BY

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ABSTRACT

- The Movie Review Analyzer is an innovative robotic process automation (RPA) solution developed using UiPath, designed to streamline the collection and analysis of Movie reviews from audience, including social media. This automation process leverages natural language processing (NLP) techniques to categorize feedback by sentiment—positive, negative, or neutral. By automating the data extraction and analysis stages, the system reduces manual effort, enhances accuracy, and delivers real-time insights into audience sentiments. The automation process enhances efficiency, enabling stakeholders—such as filmmakers, marketers, and critics—to gain valuable insights into audience preferences and film performance. The integration of this RPA solution represents a significant advancement in viewers experience management, enabling businesses to make informed decisions swiftly and effectively.

NEED FOR THE PROPOSED SYSTEM

- Manual movie review analysis is time-consuming and prone to errors, especially with large volumes of reviews. The existing process often leads to data inconsistencies and delays. To tackle these challenges, an RPA-based system automates tasks like data extraction, sentiment analysis, and report generation, ensuring accuracy and reducing human intervention. This automated solution enhances operational efficiency and provides timely, reliable insights, enabling better decision-making and strategic planning.

ADVANTAGES OF THE PROPOSED SYSTEM

- **Accuracy and Consistency:** Automated data entry eliminates human errors, ensuring precise and reliable information across processes.
- **Time Efficiency:** Reduces the time required to perform repetitive tasks, allowing quicker completion of workflows.
- **Cost-Effective:** Minimizes dependency on human labor, leading to reduced operational costs.
- **Improved Productivity:** Frees up staff to focus on higher-value tasks, boosting overall productivity.
- **Scalability:** Capable of handling large volumes of data with ease, adapting to growing business needs.

MAIN OBJECTIVE

- The main objective of the Movie Review Analyzer project is to automate the process of analyzing movie reviews, thereby ensuring accuracy, reducing manual intervention, and improving operational efficiency. By leveraging UiPath's Robotic Process Automation (RPA), the system aims to provide timely and reliable insights into audience sentiments, enabling better decision-making and strategic planning within the entertainment industry.

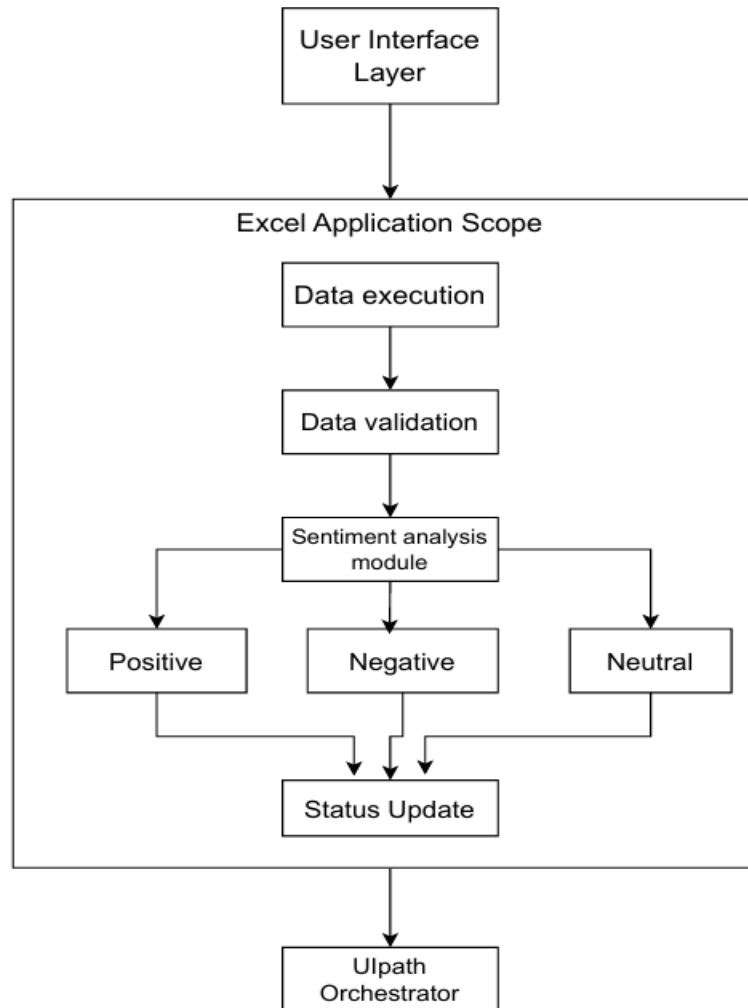
SYSTEM DESIGN

- The system design section outlines the structural and functional components of the Movie Review Analyzer. It provides a detailed description of the system's architecture, the flow of operations, and the sequence of activities that ensure timely contract renewal reminders. The system design ensures that the bot operates efficiently, accurately, and reliably, leveraging UiPath Studio's capabilities.

ARCHITECTURE

- User Interface Layer: Central platform for developing and managing the automation workflow.
- Excel: Stores movie review data and tracks the status of the analysis.
- Sentiment Analysis Module: Processes the movie reviews to determine their sentiment (positive, negative, neutral).
- Report Generation: Compiles the analyzed data into comprehensive reports.
- Triggers and Scheduler: Configured in UiPath Orchestrator to run the automation at specified intervals.
- Error Handling: Ensures the system logs errors and continues processing the next review.

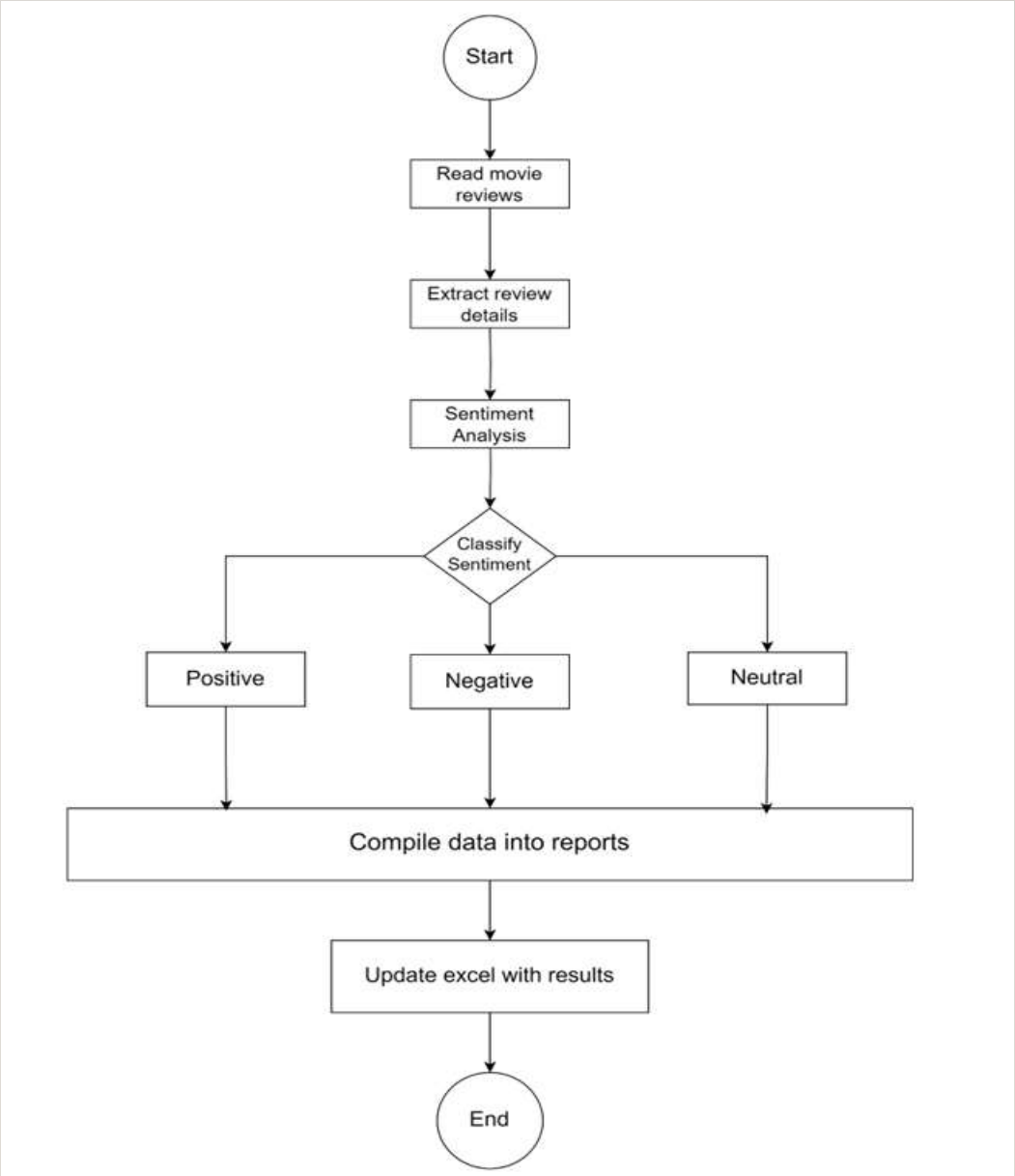
ARCHITECTURE DIAGRAM



SYSTEM FLOW DIAGRAM

- Data Input: The process begins with reading movie review data from an Excel file.
- Data Processing: The bot processes each review to extract relevant information of text.
- Sentiment Analysis: The bot applies sentiment analysis to categorize reviews based on sentiment and other criteria.
- Classify Sentiment: The bot compiles the analyzed data into positive, negative or neutral.
- Status Update: The bot updates the Excel file with the status of analysis results and status of each processed review.

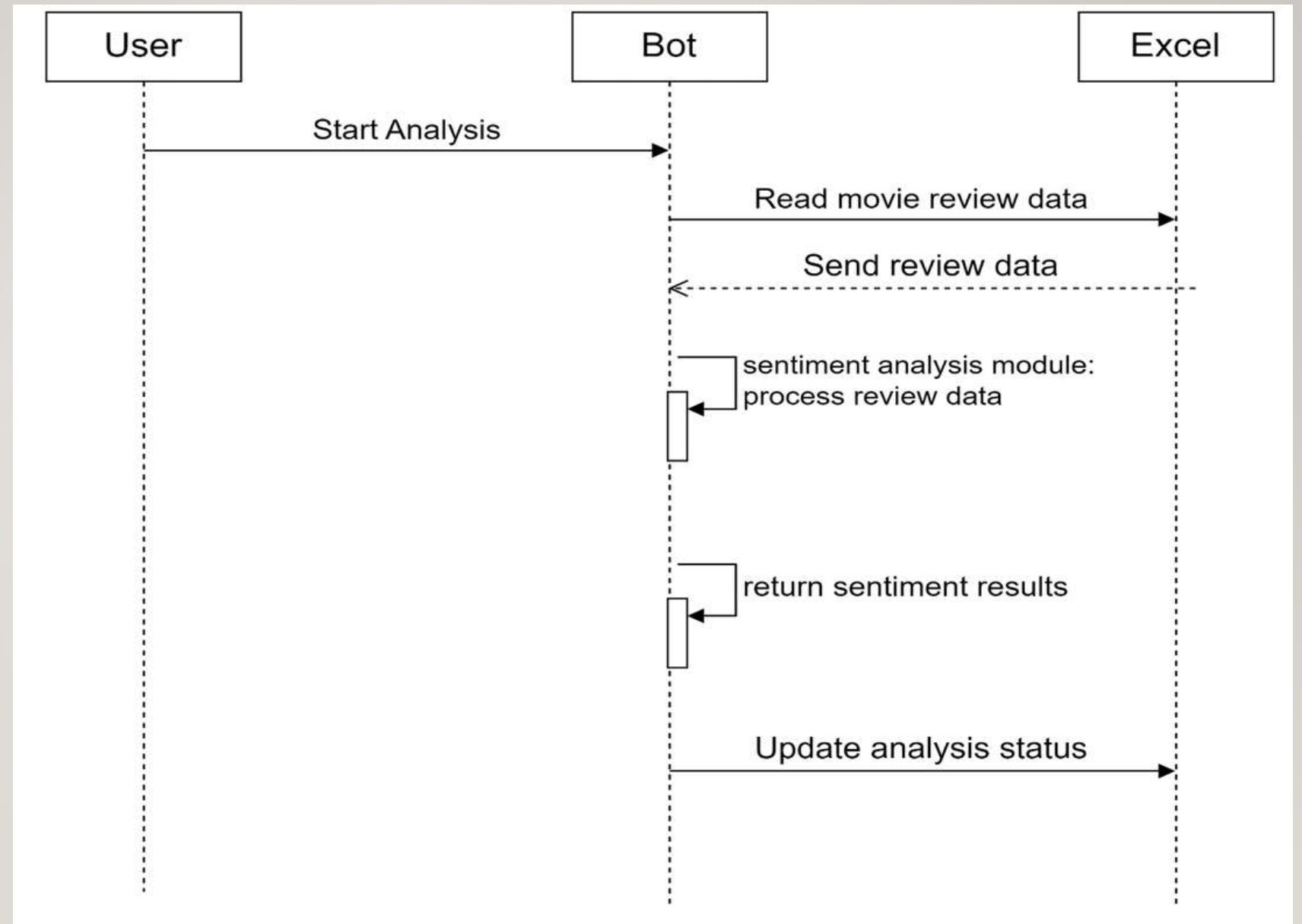
FLOW CHART REPRESENTATION



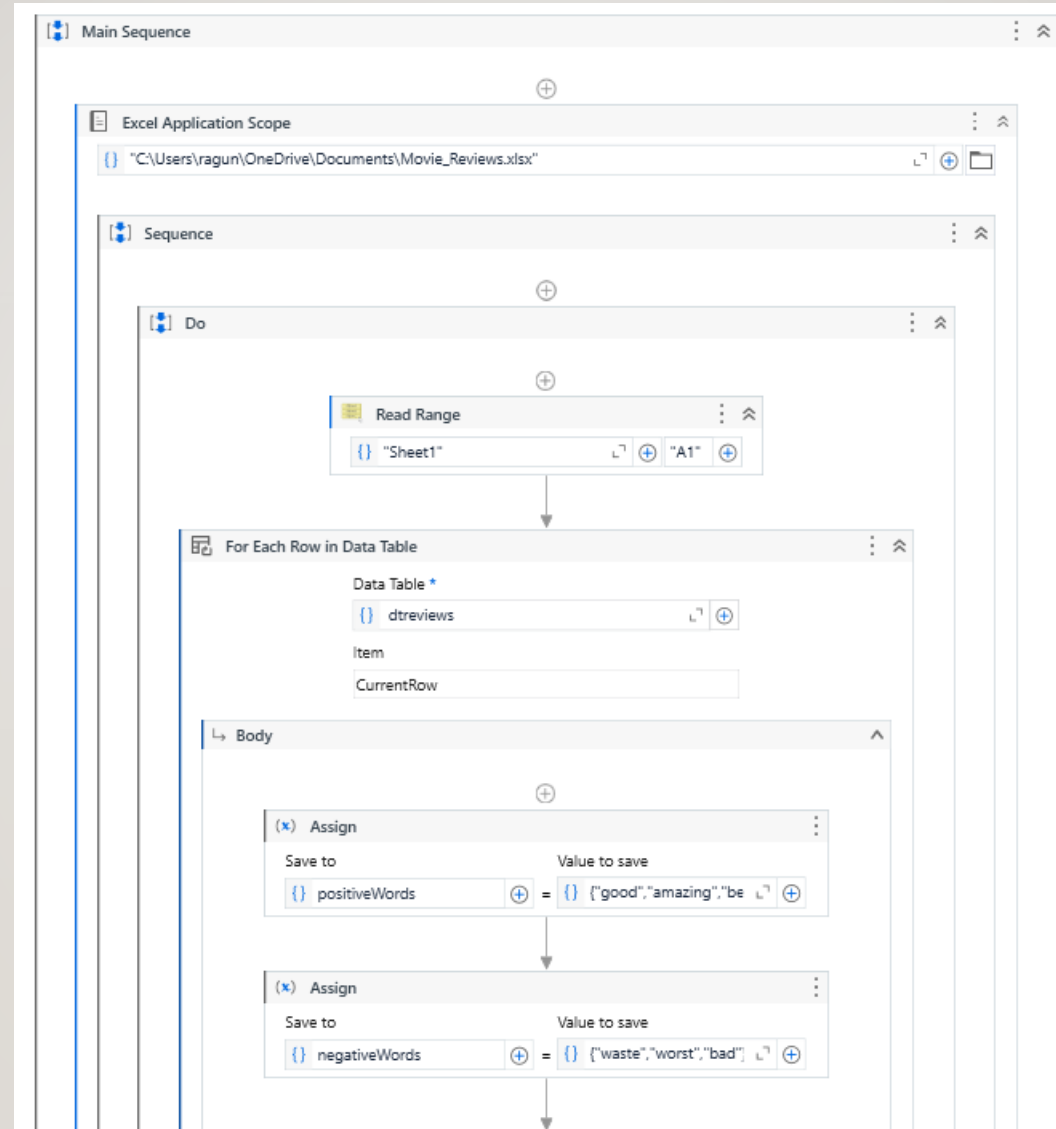
SEQUENCE DIAGRAM

- Bot Initialization: The bot starts the process based on the scheduled trigger.
- Read Excel Data: The bot reads movie review data from the Excel file.
- Process Review: For each review, the bot extracts some relevant details like texts.
- Evaluate Conditions: The bot performs sentiment analysis to determine if the review is positive, negative, or neutral.
- Update Excel: The bot updates the Excel file to reflect the analysis results for each review.
- Loop to Next Review: The process continues for the next review until all are processed.

SEQUENCE DIAGRAM



PROCESS WORKFLOW



If

Condition *

{}

positiveWords.Any(Function(word) Curr

L1

+

Then

+

Update Row Item

Value *

{}

"Positive"

L1

+

Row *

{}

CurrentRow

L1

+

Column * ☒ Number ☐ Name

{}

1

L1

+

+

.

Else

+

If

Condition *

{}

negativeWords.Any(Function(word) Curr

L1

+

Then

+

Update Row Item

Value *

{}

"Negative"

L1

+

Row *

{}

CurrentRow

L1

+

Column * ☒ Number ☐ Name

{}

1

L1

+

+

Else

+

Update Row Item

Value *

{ } "Neutral" L⁷ +

Row *

{ } CurrentRow L⁷ +

Column * ☒ Number ☐ Name

{ } 1 L⁷ +

+

Write Line

Text

{ } CurrentRow(0).ToString+CurrentRow(1).To L⁷ +

+

Write Range

{ } "Sheet1" L⁷ + "A1" L⁷ +

{ } dtreviews L⁷ +

+

OUTPUT SCREENSHOT

4	A	B
1	Movie Reviews	Results
	though I can't say I'm a soccer fan. But watching this just filled my heart with joy, and I had a great time in the movies watching it. Björn Fast Nagell does a tremendous job directing this movie, and even though you notice the main characters are new at acting, they grow with the movie and makes it what it is. Even though it is supposed to be a soccer movie, there is surprisingly little soccer in it. The whole idea is to show the six guys making up the word N O R W A Y on their trip to the World Cup in soccer playing in Germany this year. If you're only gonna see one	
2	Norwegian movie this year, this is the one..	Neutral
	was prepared for the possibility that this would be awful, but the script (or lack thereof) makes for a film that's also pointless. On the plus side, the general level of craft on the part of the actors and technical crew is quite competent, but when you've got a sow's ear to work with you can't make a silk purse. Ben G fans should stick with just about any other movie he's been in. Dorothy S fans should stick to Galaxina. Peter B fans should stick to Last Picture Show and Target. Fans of cheap laughs at the expense of those who seem to be asking for it should stick to Peter B's amazingly awful book, Killing of the Unicorn.	Positive
3	film moves very slowly, but constantly keeps you watching. Modern Love worked well in the Gold Coast Film Fantastic program this year offering audiences a glimpse at an Australian Cinema that is usually neglected. Most importantly it is refreshing to see Australian cinema not taking on the cliché Aussie characters and story lines we have seen done to death over the years. This film would compliment any festival and will open debate after its screenings. The performances and characters are well developed, and the cinematography is fantastic. An interesting exploration into family relationships, and environments.	Positive
4	wait for the video release. My expectations where high but they where in no way disappointed. As always with Ang Lee there is fantastic acting, an intelligent and thrilling plot that has you guessing right till the end and superb filming. Along with Unforgiven this is easily one of the two best westerns of the 90's. People who expect something along the line of Mel Gibson in The Patriot(corny) or Braveheart(acceptable) will be sourly disappointed, all others who appreciate the above mentioned qualities will have a fantastic time watching it. 9 out of 10.	Positive
5	say it is one of the most boring films I've ever seen. And the acting is very bad. The boy who plays the main character really annoys me, he's got the same expression on his face through out the movie. I just want to slap him! Basically 80% of the movie is slow motion shots of skateboarders, weird music, and utter sh*t.. Apparently I've got to write at least 10 lines of text to submit this comment, so I'll use up a few more lines by saying the lead character has got one of those faces you just want to slap! Meh i give up..THIS MOVIE SUCKS !!!!	Negative
6		

CONCLUSION

- The Movie Review Analyzer project revolutionizes movie review analysis by leveraging UiPath's Robotic Process Automation (RPA) to address the challenges of manual data processing and sentiment analysis. This innovative solution ensures consistency, efficiency, and accuracy in review evaluation, providing real-time updates and enhancing transparency. The user-friendly interface for Excel reports and the automation of repetitive tasks allow stakeholders to focus on more nuanced aspects of review interpretation and decision-making.
- Despite potential challenges requiring deep contextual understanding and ongoing algorithm updates to keep pace with evolving trends, the project lays a solid foundation for automated review analysis in the entertainment industry. It marks a significant advancement in leveraging technology to gain valuable insights, improve decision-making, and optimize resources. Future enhancements may include integrating additional analytical tools, expanding sentiment analysis capabilities, and developing advanced reporting features.

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