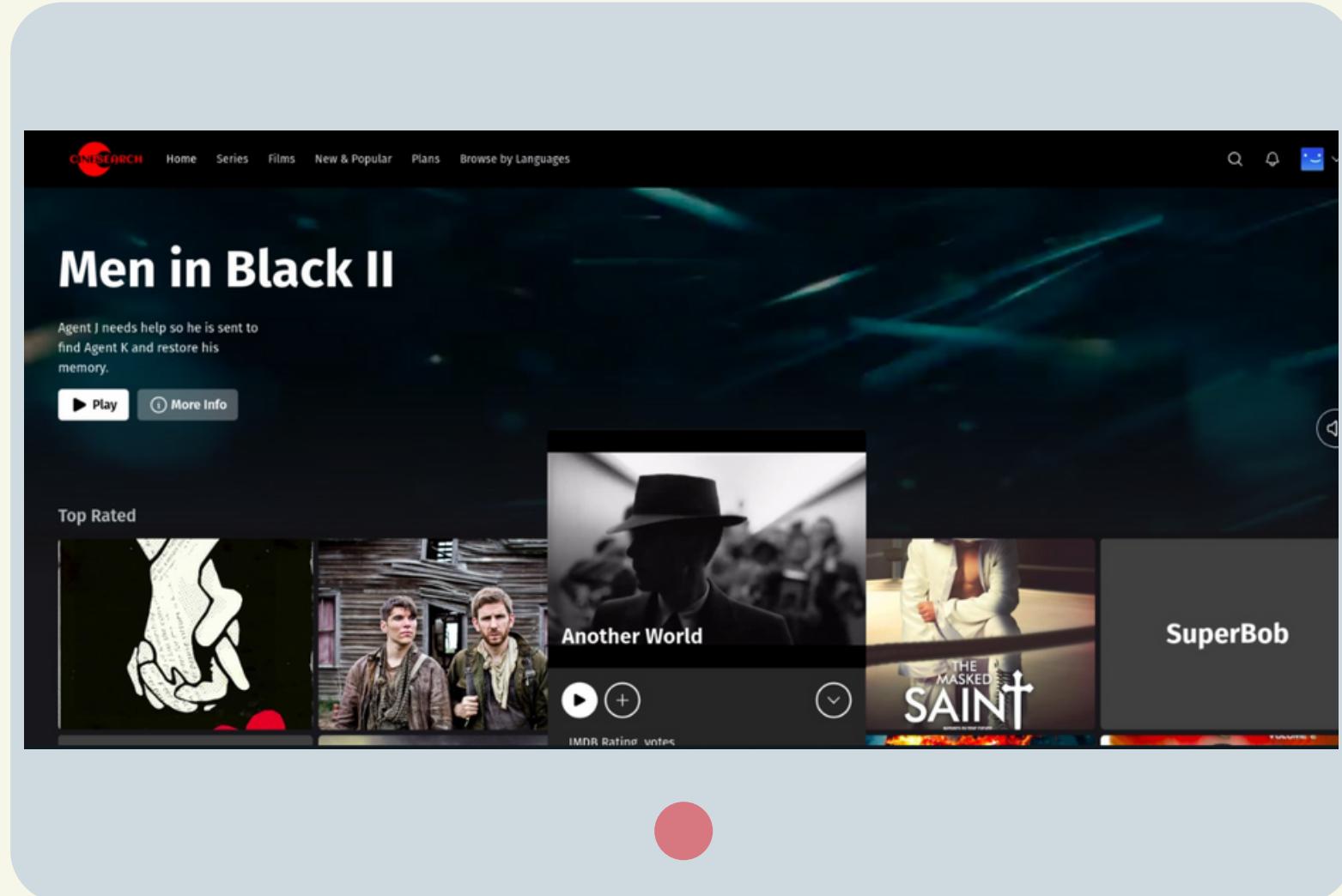


TEAM 473



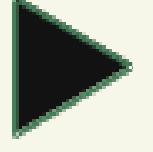
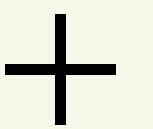
[Home](#)

[My List](#)

[Subscription](#)

[Search](#)



 Be Popcorn Ready 

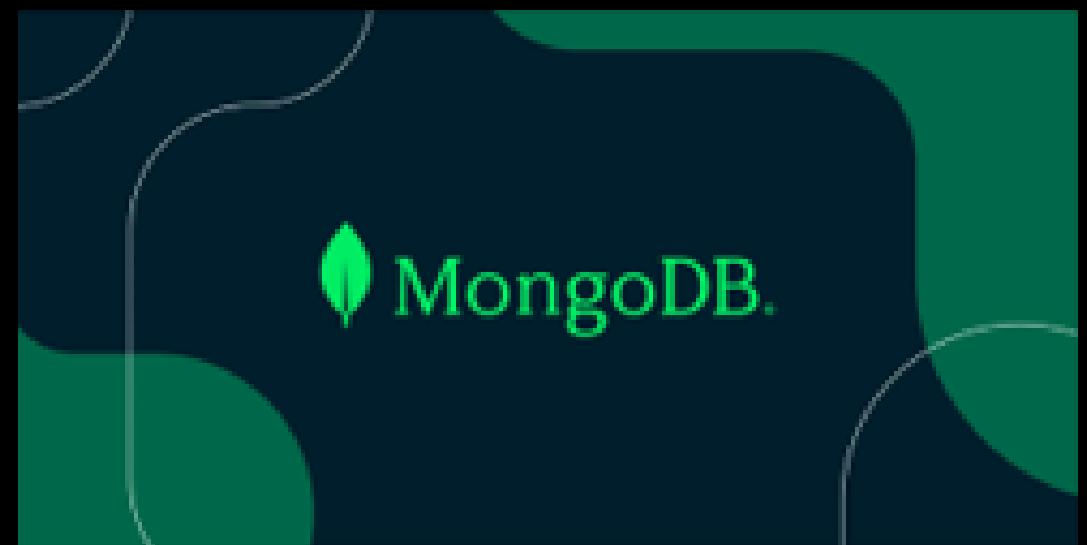
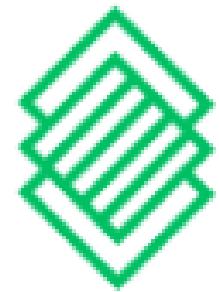


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INTRODUCTION



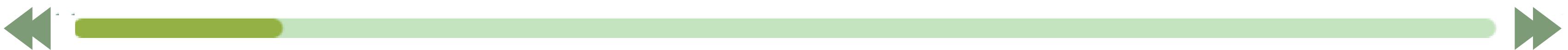
**TECHNOLOGY
USED**



**SEARCH FEATURES
& COMPLETE
SYSTEM
ARCHITECTURE**

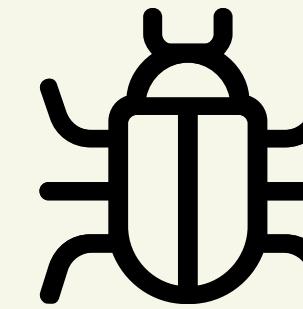


**DATABASE
MANAGEENT
SYSTEM &
FUTURE ASPECTS**





PROBLEM



USERS STRUGGLE WITH SEARCH DUE TO LACK OF FEATURES AS :

- Deep Search
- Autocomplete and Fuzzy Search
- Semantic search
- Advanced video playback options
- Personalized Search and Recommendations



SOLUTION

To address this, we aim to enhance search functionality with MongoDB Atlas Search, offering autocomplete, fuzzy matching & semantic search. We'll also integrate advanced video-playback options like resolution settings and playback speed control to enrich the user experience.



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INTRODUCTION & WHY?

In the digital age, movie databases are hotspots for film enthusiasts. To enhance user experience, integrating advanced search features like autocomplete and semantic search, alongside enriched video playback options, is essential.

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TECH STACK IMPLEMENTED



01 **NextJS**

02 **React Native**

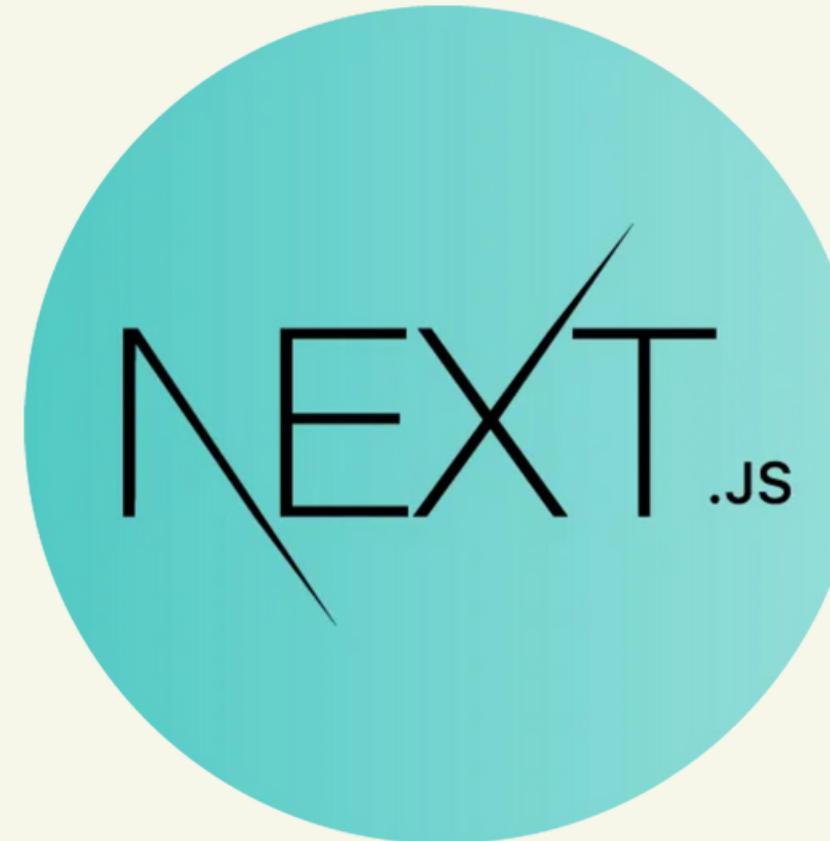
03 **Firebase
Authentication**

04 **MongoDB
and NodeJS**

05 **AWS EC2 & S3 Bucket**

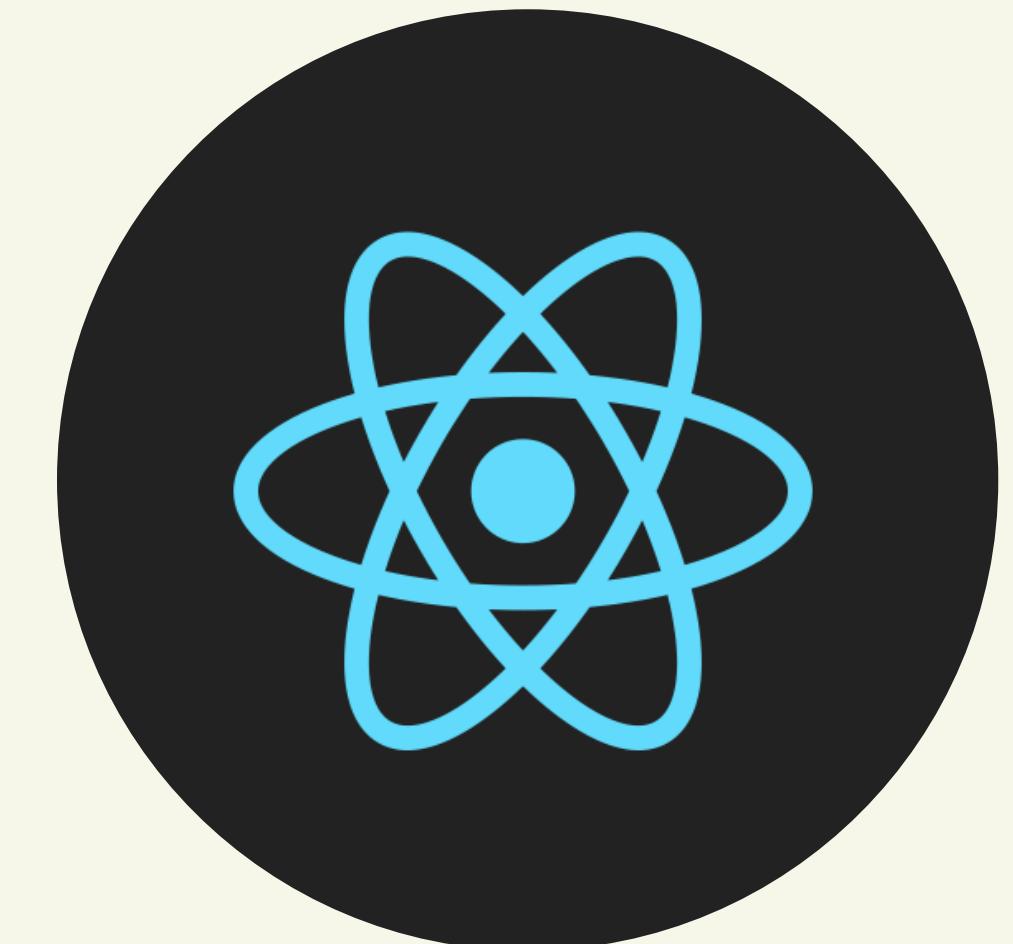
06 **Redis**





Acting as the backbone of our frontend development, it drives the creation of visually appealing and interactive website pages, ensuring a compelling user experience. Server Side Rendering and being full stack is a best that nextjs offers.

The application's frontend is built with React Native, enabling seamless performance across multiple platforms. It enhances accessibility and usability by using Native Components and routing with RESTful API implementation



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Effortlessly manages user registration and login processes, guaranteeing secure access to our platform's features and content.

MongoDB empowers frontend development, creating engaging, dynamic website pages with seamless integration for enhanced user experiences.



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Converted mp4 files to m3u8 format using MediaConvert. Hosted the m3u8 videos on Simple Storage Service. Used CloudFront to create a distribution network.

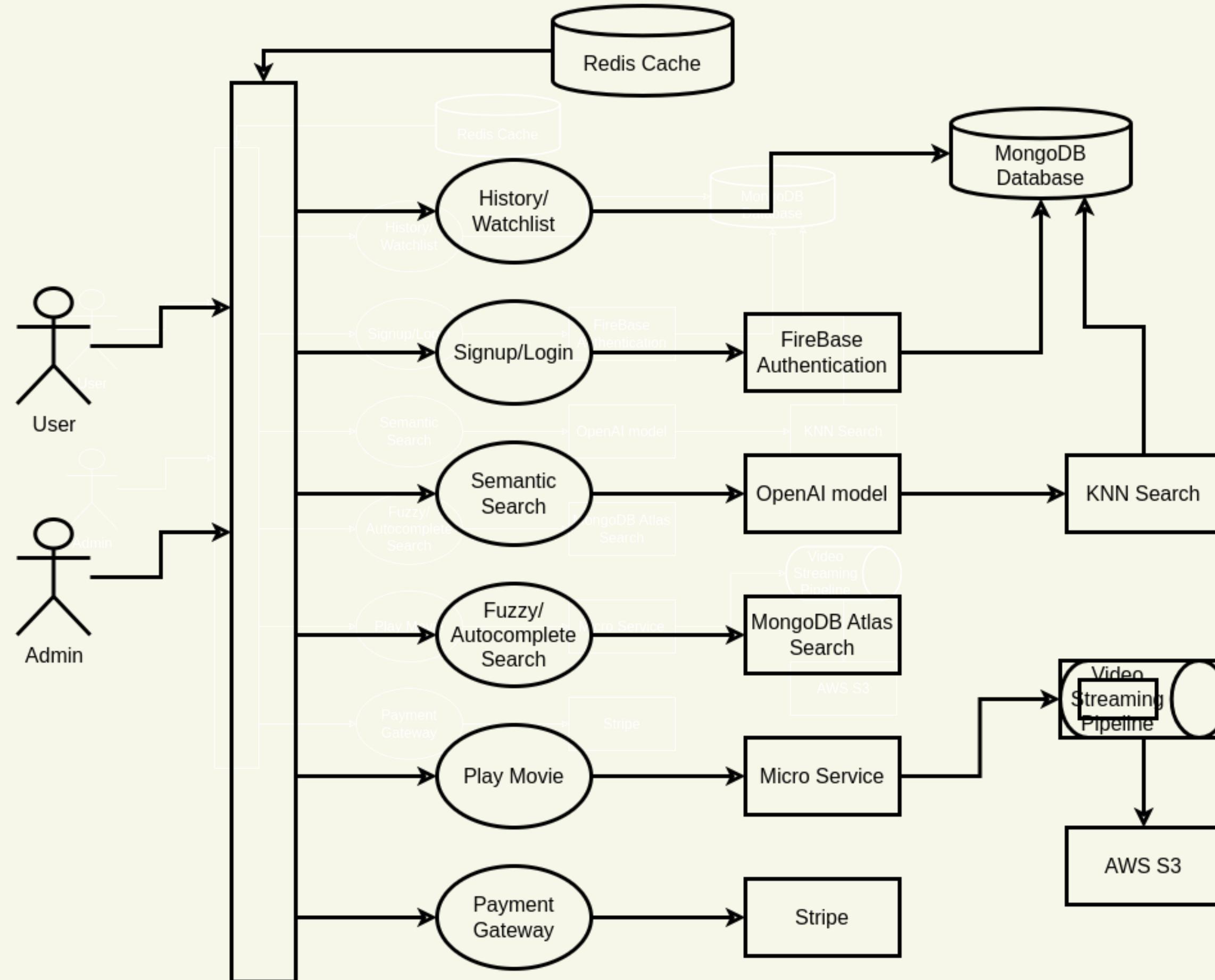
Utilizes caching for recent search results and movie metadata to leverage temporal patterns, optimizing performance and user experience.



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SYSTEM ARCHITECTURE



SEARCH FEATURES

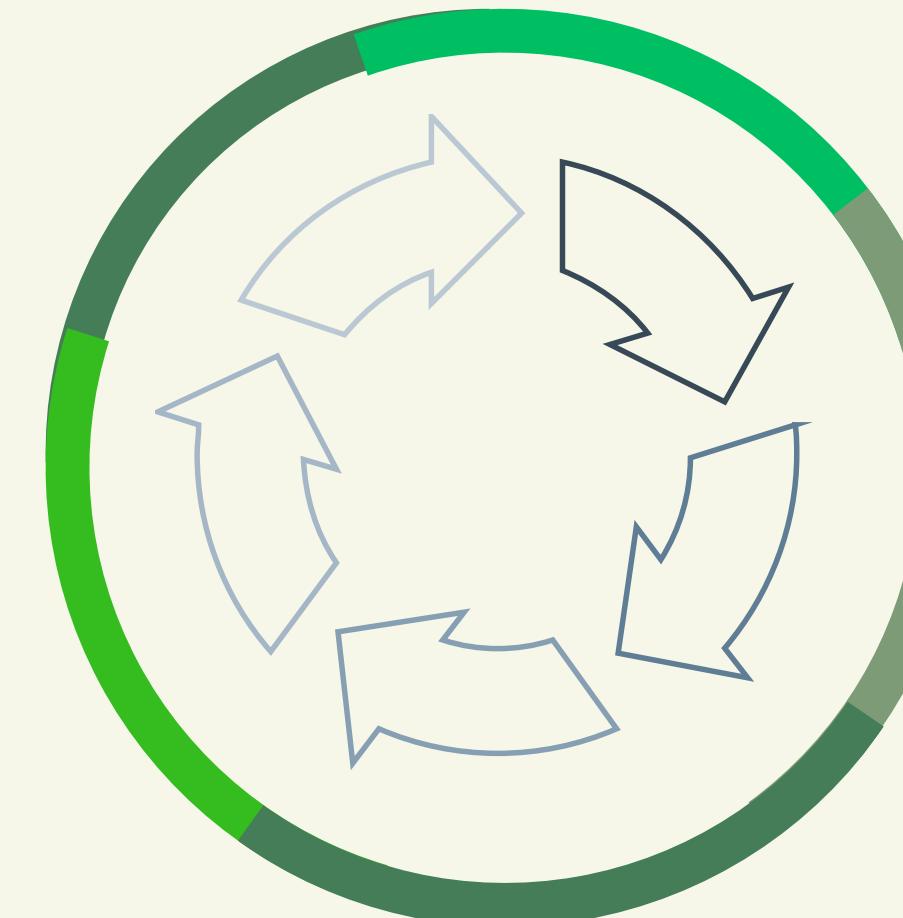
➤ Autocomplete

➤ Semantic

➤ Fuzzy

➤ Profile Specific

➤ Search Across Cast and Directors



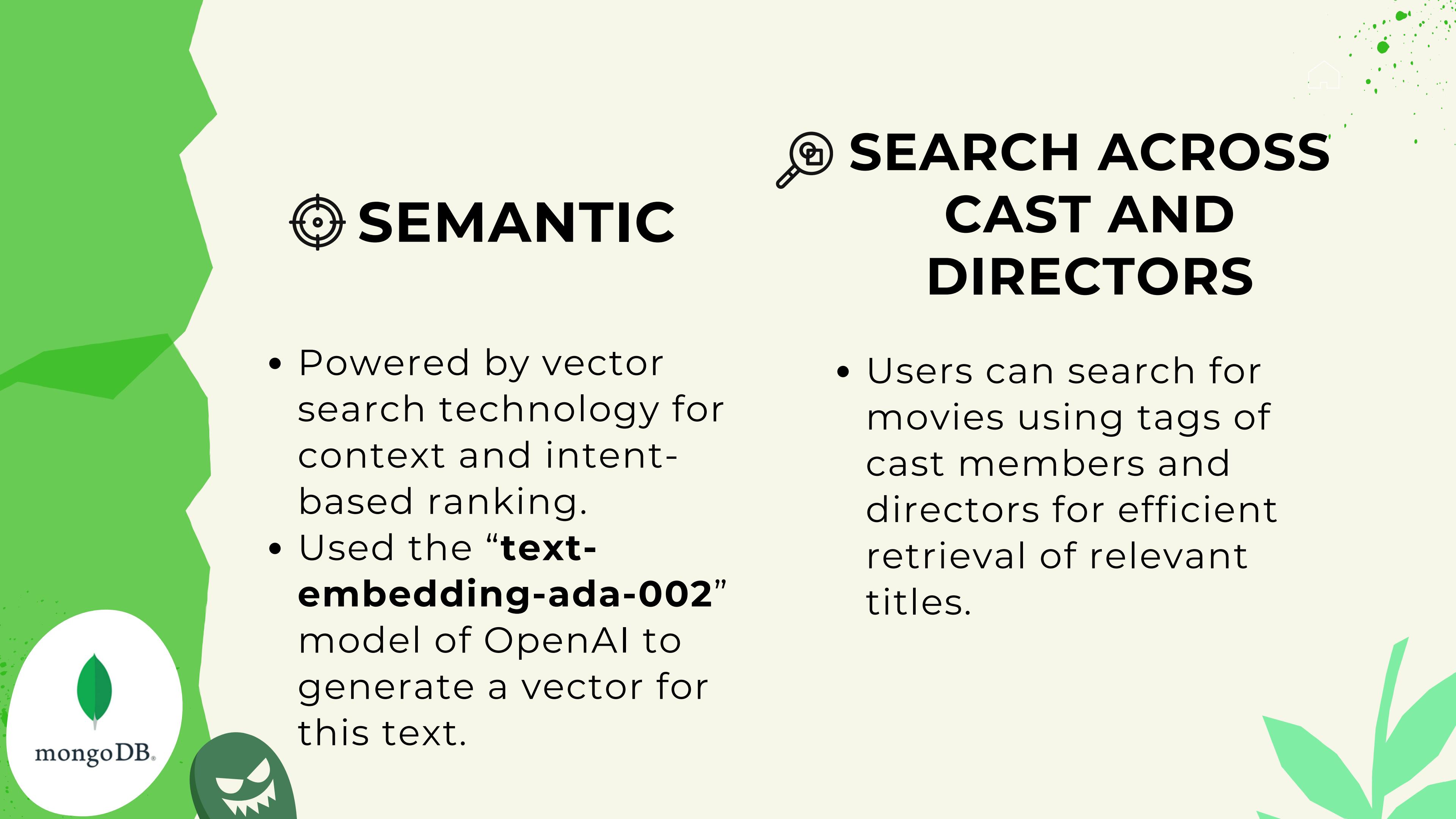


🔍 AUTOCOMPLETE

- Real-time suggestions adapt as users type, facilitating seamless writing experiences.
- It boosts exact matches ensuring relevance.

oculars FUZZY

- Accommodating variations in spelling and syntax for real-time adaptive suggestions as users type.
- Parameters like Damerau-Levenshtein distance. Fine-tuned for precision.



SEMANTIC

- Powered by vector search technology for context and intent-based ranking.
- Used the "**text-embedding-ada-002**" model of OpenAI to generate a vector for this text.



SEARCH ACROSS CAST AND DIRECTORS

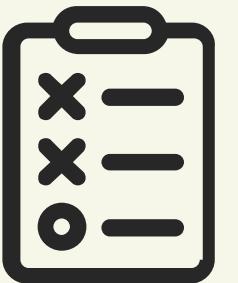
- Users can search for movies using tags of cast members and directors for efficient retrieval of relevant titles.



USER SPECIFIC SEARCH

1. User is assisted in searches by using their watch history as reference.
2. Dedicated section showcases top IMDb-rated movies, offering users curated access to acclaimed films for an enriched experience.
3. Users can sort movies based on specific criteria like directors, genres, cast and release dates.

FEATURES OFFERED



CINESEARCH

Multiple
Profiles

Video
Playback

Cache

Authenticate

Payment
Options

Watchlist



USER SELECTS PAYMENT PLAN AND GIVES CREDENTIALS

A TOKEN IS GENERATED FROM THE RESPECTIVE PLAN AND IS THEN REDEEMED

FOR EVERY USER A UNIQUE ID IS SAVED WITH A PAYMENT TOKEN IN A DATABASE

USERS' PAYMENT PLAN IS SAVED



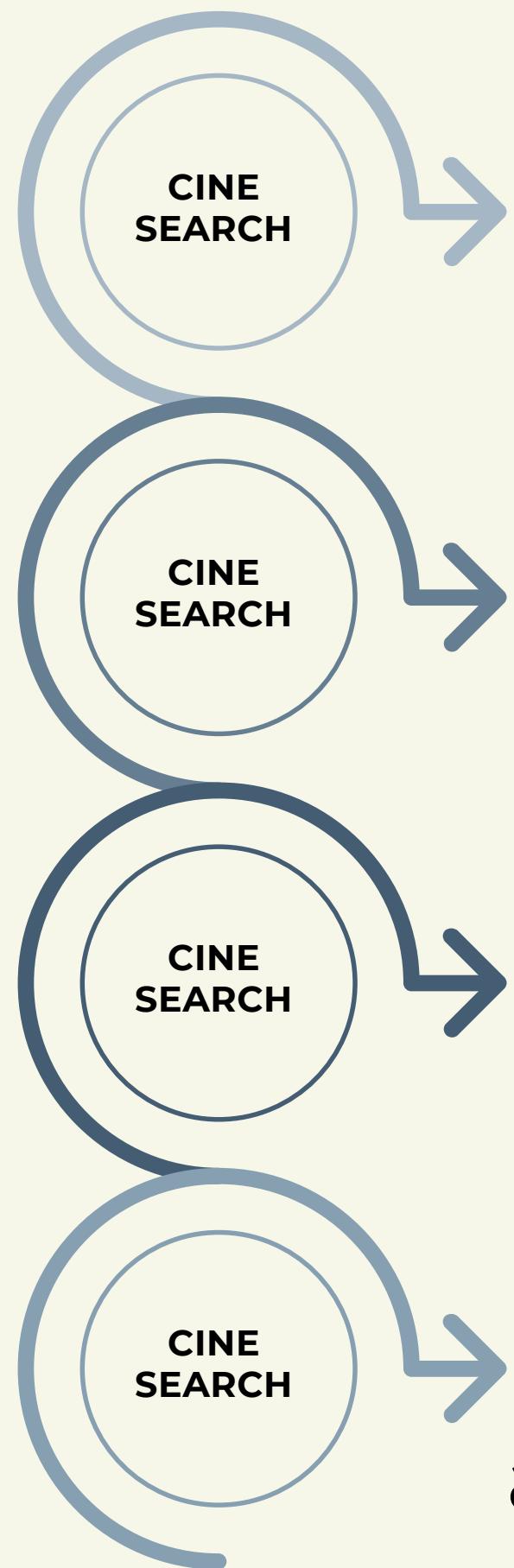
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STRIPE SUBSCRIPTION DONE





VIDEO PLAYBACK



HLS player (Able to stream m3u8 files)

Playback speed control

Various resolution settings

**Unsubscribed users get
a preview of 20-30 seconds**



ADMIN ASPECTS

Analysis of:

Total Movies

Revenue generated

1

2

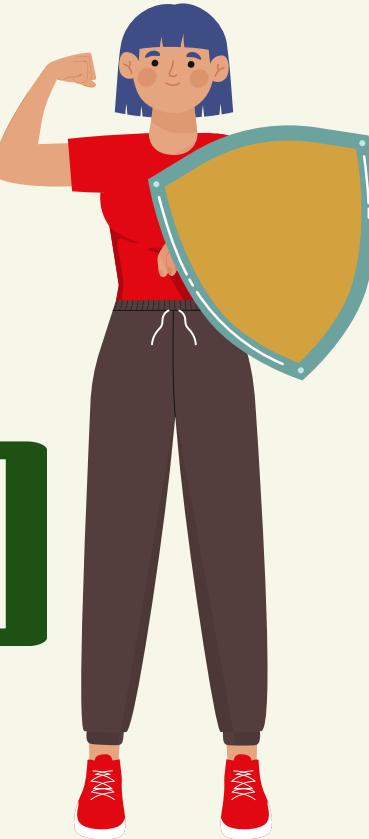
3

4

Total Users

CRUD of users

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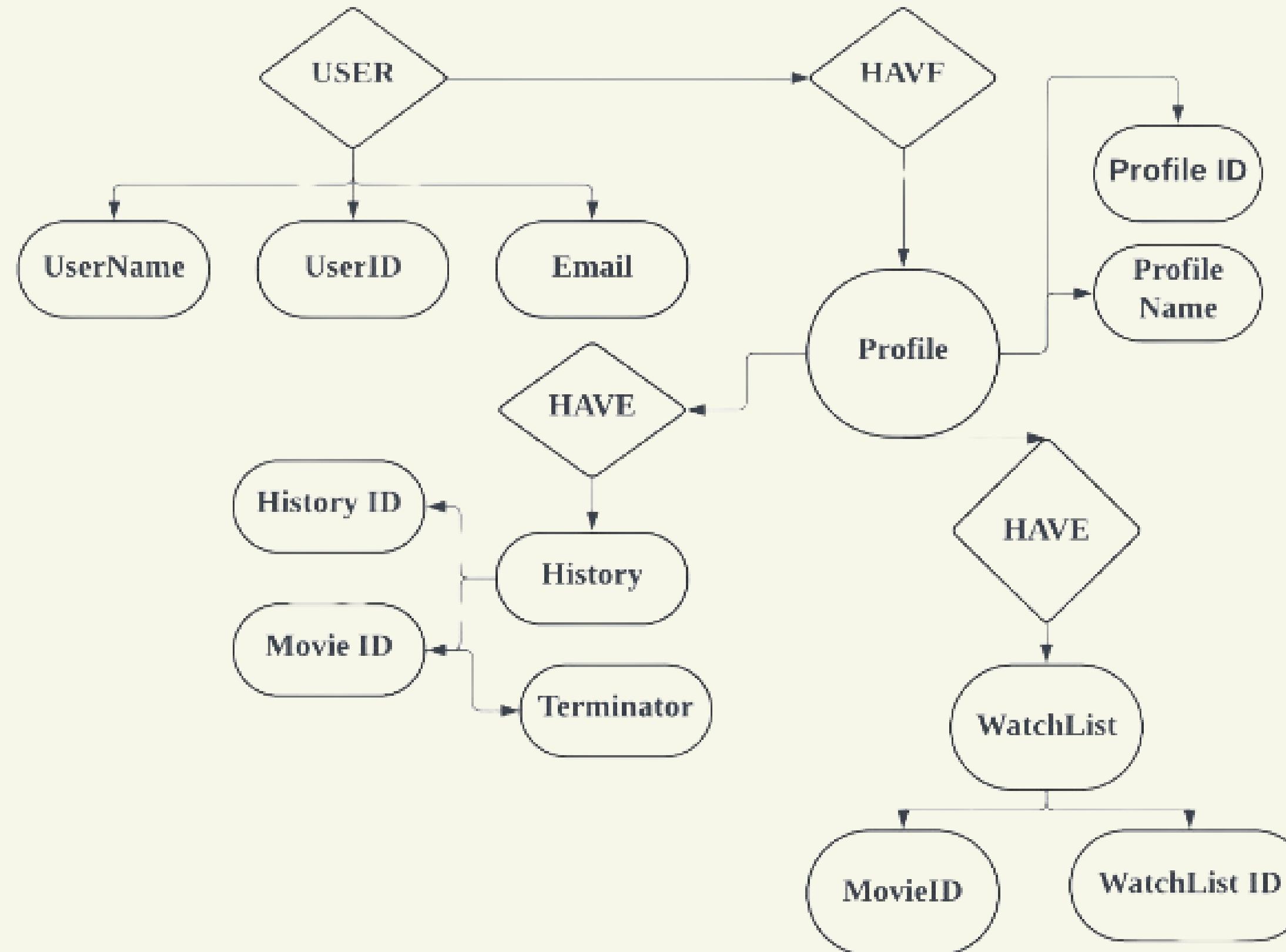
DATABASE MANAGEMENT SYSTEM



- **Flexible Schema:** MongoDB's schema-less design allows for the storage of diverse data types within the same collection, accommodating evolving data structures.
- **Scalability:** MongoDB scales horizontally, distributing data across multiple servers or nodes to effectively handle high throughput.
- **Performance:** MongoDB's document-based model and indexing ensure fast query execution, especially for read-heavy workloads as data is stored in JSON-like documents.
- **High Availability:** Built-in replication and automatic failover mechanisms ensure data redundancy and high availability, minimizing downtime and data loss risks.
- **Rich Query Language:** MongoDB offers a powerful query language with various operators, aggregation pipelines, and geospatial queries for complex data analytics.



ER DIAGRAM



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FUTURE ASPECTS



Autopay: CineSearch plans to introduce autopay for seamless movie transactions, offering users convenience, and personalized control over payment preferences."



PG-ratings: Future enhancements include implementing parental controls with PG rating filters, ensuring child-friendly movie selections on CineSearch.



Browsing enhancement: In future iterations, CineSearch may introduce special pages for directors, genres, and cast to enhance browsing experiences."



User Comparison: CineSearch plans to implement user history comparison for recommending related movies based on what others have watched

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Thank
you!

