DigiClips
Media Search Engine

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Detail Design

Project Overview

DiGiClips is a comprehensive Media Search Engine designed to process diverse media data and generate detailed, insightful media report software for Television, Radio, Newspapers, Magazines, Social Media, Blogs, Web TV, Podcasts, and SiriusXM Radio.

Our platform supports two primary user types:

1. **Subscribers** – users with access to premium features and detailed reporting.
2. **General Users (Non-subscribers)** – users with access to foundational features and insights.

Our development team will be focusing on enhancing and optimizing the general user platform to provide accessible, high-quality media insights while ensuring a seamless user experience.

Detailed Design and Visuals
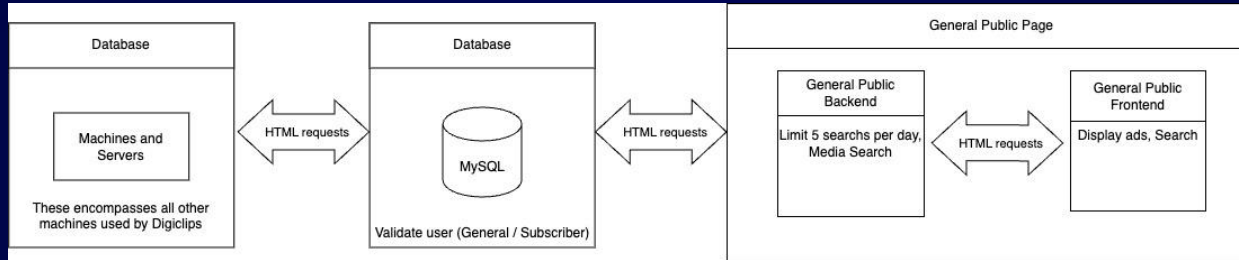
1. Machines and Servers (Database Layer)
2. MySQL Database (Central Layer)
3. General Public Page (User Access Layer)

Functionality

Subscriber: Full Access or Non-Subscriber: Limited Access → Keyword Monitoring Setup → Search and Content Access → Media Alerts and Notifications → Analytics and Reporting (Subscriber Only) or Ad Display and Upgrade Prompt (Non-Subscribers)

1. Login and Role Detection

- **User Action**: Logs into DigiClips.
- **System Response**: Verifies role (Subscriber or Non-Subscriber).
  - **Subscribers**: Full access (unlimited searches, analytics, media alerts).
  - **Non-Subscribers**: Limited access (restricted searches, ads, and basic monitoring).

2. Keyword Monitoring Setup

- **User Action**: Sets up keywords/topics to track.
- **System Response**: Saves preferences, monitors channels, and processes media mentions.
  - **Subscribers**: Option to enable real-time alerts.

3. Search and Content Access

- **User Action**: Searches for recent media mentions.
- **System Response**:
    - **Subscribers**: Unlimited searches with advanced filters (e.g., media type, region).
    - **Non-Subscribers**: Limited to five daily searches, with ads and restricted features.

4. Media Alerts and Notifications

- **User Action**: Enables notifications for media mentions.
- **System Response**: Scans for updates continuously.
    - **Subscribers**: Immediate alerts via email or in-app.
    - **Non-Subscribers**: Possible delayed alerts.

5. Display and Upgrade Prompt (Non-Subscribers Only)

- **System Response**: Displays ads and prompts non-subscribers to upgrade, using pop-ups or banners to highlight additional features.

Machines and Servers (Database Layer)

1. Machines and Servers (Database Layer)
   a. The backend infrastructure includes various machines and servers responsible for processing and storing raw media data from sources such as TV, radio, and podcasts.
   b. Key Functions:
      i. The servers handle incoming data from different media sources, process it, and prepare it for storage.
      ii. After processing, the results are stored in a structured format within the system's central MySQL database.
      iii. Interaction with the database layer occurs through HTML requests, allowing for a smooth data flow for validation and subsequent processing.

| Database |
| Machines and Servers |
| These encompasses all other machines used by Digiclips |
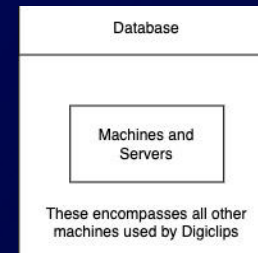
MySQL Database (Central Layer)

1. MySQL Database (Central Layer)
    a. This MySQL relational database acts as the core of the DigiClips system, housing all processed media data, user accounts, and supporting user validation.
    b. Key Functions:
        i. Differentiates access levels between general users and subscribers.
        ii. Holds processed media results and user interaction data, ensuring easy retrieval for user queries.
        iii. The database communicates with both the backend and frontend to handle media queries, validate access rights, and manage data integrity.
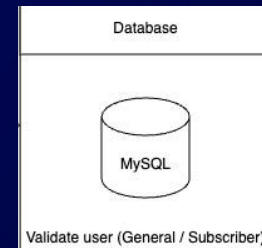
General Public Page (User Access Layer)
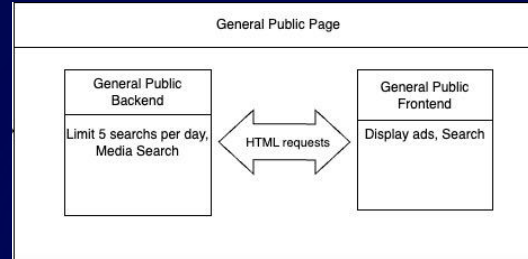
1. Frontend
   a. This web interface provides general users with access to the media search engine but with limited functionalities, such as a maximum of five searches per day.
   b. The interface displays ads as a revenue source, compensating for the restricted access granted to non-subscribers.
   c. General users can view but not download or edit media reports.

General Public Page (User Access Layer)
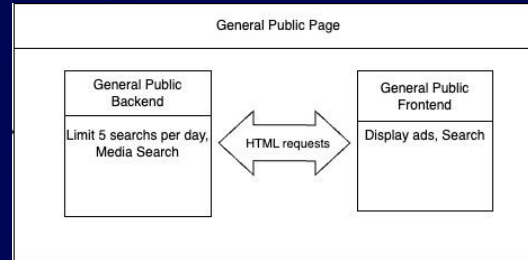
1. Backend
   a. Processes search requests, enforces the daily search limit, and fetches relevant media data from the MySQL database.
   b. After retrieving search results from the database, the backend sends the data back to the frontend for display.
   c. Ensures compliance with limitations placed on general users, providing a user-friendly experience within the imposed constraints.

Technology Considerations

MySQL Database

- Strength: Efficient structured data storage
- Weakness: Limited scalability for high-volume real-time data
- Trade-off: Stable for current needs; may need future scaling

Frontend
(HTML/CSS, Angular)

- Strength: Responsive, dynamic user interface
- Weakness: Potential longer load times
- Trade-off: Chosen for ease of maintenance and expansion

Backend
(Server Infrastructure)

- Strength: Reliable data processing and validation
- Weakness: May face latency with high traffic
- Trade-off: Secure handling; could require more resources as usage grows

Ad Integration

- Strength: Revenue generation from non-subscribers
- Weakness: Potentially impacts user experience
- Trade-off: Balances revenue with ad frequency to maintain engagement

Areas of Concern and Development

How Well the Current Design Meets Requirements:
- Search Limitations: Balances monetization goals, but tuning is needed to avoid user frustration.
- Ad Integration: Essential for non-subscriber revenue but must be non-intrusive to maintain a positive user experience.
- System Scalability: Ensuring backend can handle growing user volume, search activity, and real-time notifications efficiently.
- Data Accuracy: High relevance and accuracy in search results are crucial to maintain user trust.
- Conversion Optimization: The "Upgrade to Subscribe" CTA needs to be prominent yet subtle, with tracked engagement for iterative improvement.

Primary Concerns for Meeting Requirements and User Needs:
- User Experience (UX): Balancing feature restrictions and ads for non-subscribers to avoid negative impact on satisfaction.
- Performance Testing: Load testing to ensure consistent speed and reliability during high traffic.
- Analytics and Conversion: Monitor engagement with key features (e.g., CTA, search), adjusting design for optimal satisfaction and conversions.
- Continuous Feedback Integration: Rapid response to client and user feedback through Agile for iterative improvement.

Conclusion

- Robust Media Solution: DigiClips offers an accessible, user-focused media search platform.

- User-Friendly Design: Delivers high-quality insights, balancing functionality for subscribers and general users.

- Scalable Infrastructure: MySQL and layered architecture support stability and future growth.

- Revenue & Growth: Ad integration and upgrade options drive revenue and subscription potential.

- Next Steps: Focus on user experience, performance, and scalability to meet growing demands efficiently.