

# FactEcho News System Product Requirements Document (PRD)

## Table of Contents

- Overview
- Features and Experience
- SWOT Analysis
- Business Model
- Use Case Diagram
- Activity Diagram
- Technologies Used
- Clients
- Hosting

## Overview

FactEcho is a news application that provides users with up-to-date news across various fields, emphasizing truth, transparency. Initially, FactEcho will be available as a website, with a mobile app and community engagement planned for future versions.

## Features and Experience

### Authentication and Authorization

- User Registration: Users can register using their email and a unique username, followed by email verification.
- Login: Users can log in with their email and password.
- Password Reset: Users can reset their password through a secure method.
- Security: Passwords will be encrypted, and JWT will be implemented for secure authentication.
- OAuth: User can register and login by OAuth like Google, X, Facebook.

### User Profile and Settings

- Profile Management: Users can update their profile information, including username, password and profile picture.
- Account Deletion: Options for users to delete their accounts if desired.
- Multi Roles: Roles for admins, authors and users.
- Author Public Profile: Users can see author articles and its profile.

### News Categories

- Categorized News: A dedicated section for various news categories (e.g., politics, sports, technology).

## News Articles

- Various Articles: Light size articles contains images and embedded media frames.
- Article Search: Users can search for news articles and access individual article pages.
- Article Page: Page for each article.
- Article Quires: Suggested random article, trend articles, latest articles.
- Interactions with Article: In the future, Users maybe can like, save and comment on articles, we can allow users to follow specific authors, Also we can allow users to add their articles too.

## Admin Dashboard

- Users Permissions Controls: Set users as authors and set authors Permissions.
- Categories Controls: Admin can create, update and delete various categories.
- Articles Controls: Admin can create, update and delete various Articles.
- Ads Controls: In the future, Admin can create ads for a specific places in the app like some ads in slider in home and categories pages another ads slider in articles and search pages.
- Email News Letter: In the future, we can allow admin to send news letter to users who subscribe in this service.
- Statistics View: In the future, we can add statistics for admin about the system.

## Author Dashboard

- Author Articles: Author can create, update and delete its articles depending on his permissions.

## Premium Features

- Subscription Options: In the future, Future plans to offer premium subscriptions for an ad-free experience and exclusive content.

## Installation

- In the future, Instructions on how to set up and run the application.

## Usage

- In the future, Guidelines on how to use the app effectively.

## Contributing

- In the future, Information on how to contribute to the project.

## License

- In the future, Details about the project license.

## SWOT Analysis



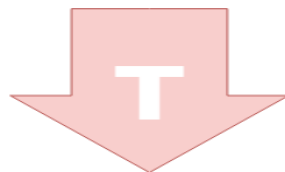
- People want easy-to-access, diverse news in many fields.
- There's plenty of free news from daily events, saving us money on content creation.
- We have skilled authors to provide high-quality, interesting news.
- Digital marketing can help us reach and engage more people.



- As a startup, we have limited resources, which might slow our growth.
- We don't have a strong brand name yet, which might reduce user trust.
- We face tough competition from established news platforms.
- Financial limits may restrict hiring top writers or tech talent.



- We have a good team of writers and marketers to help us grow and produce great content.
- More people are reading news on digital devices.
- Social media is a low-cost way to market and share our news.
- We could partner with other media outlets or influencers to boost our credibility.
- We can expand into multimedia, like videos or podcasts, to attract more users.



- Strict regulations and laws in Egypt may limit what we can do.
- Potential taxes could impact our finances.
- High competition and limited resources increase the risk of failure.
- People may prefer social media news over web platforms.
- Economic instability could impact ad revenues and sponsorships, which we'll need for growth.

# Business Model

## The Business Model Canvas



# The Business Model Canvas

## Key Partners



### Key Partners

#### Who are our Key Partners?

- **Journalists and Reporters:** Provide timely, accurate news and insights from various fields.
- **Content Authors and Freelance Writers:** Contribute in-depth articles, opinion pieces, and specialized content.
- **Public Community Contributors:** Engage in content creation through comments, community reporting, and interactive features.
- **Advertisers and Sponsors:** Support revenue generation through ad placements, sponsored content, and partnership promotions.

#### Who are our Key Suppliers?

- **Advertising Networks and Platforms:** Supply ad inventory and manage ad distribution.
- **News Agencies and Syndicates:** Provide syndicated news feeds for broader content coverage.

#### Which Key Resources are we acquiring from partners?

- **Content Resources:** News articles, opinion pieces, and live reports.
- **Community Engagement:** User-generated content and interactive participation.
- **Funding and Revenue Support:** Advertiser partnerships and sponsorships to fund operations and growth.
- **Brand Credibility:** Established journalists and quality advertisers enhance FactEcho's reputation and trustworthiness.

## Key Activities



### Value Propositions:

- Create, curate, and fact-check news content to ensure quality.
- Personalize content to enhance user engagement.
- Manage ads and sponsored content for revenue generation.

### Distribution Channels:

- Deliver news via app, website, and social media.
- Use newsletters and notifications to engage users.

### Customer Relationships:

- Provide user support and gather feedback.
- Build community through interactive features.
- Offer premium, personalized experiences.

### Revenue Streams:

- Earn through ads, subscriptions, and sponsored content.

## Key Resources



### Key Resources

- **Value Propositions:** Content from journalists, free news sources, and community engagement.
- **Distribution Channels:** Mobile app, website, social media.
- **Customer Relationships:** Digital marketing, customer support.
- **Revenue Streams:** Advertising, subscriptions.

### Resource Types:

- **Physical:** Servers.
- **Intellectual:** Brand (FactEcho), user data.
- **Human:** Journalists, Authors, marketers, tech support.
- **Financial:** Ad revenue, startup funds.

## Value Propositions



### Value Propositions

- **News Quality and Reliability:** High-quality, timely, and accurate news across diverse fields.
- **Personalized Experience:** Tailored news feeds and alerts to match user interests.
- **Community Engagement:** Interactive features for user discussions and feedback.
- **Flexible Access:** Available on mobile and web for on-the-go news consumption.
- **Premium Options:** Ad-free subscription for an enhanced, exclusive experience.

## Customer Relationships



### Customer Relationships

- **Self-Service:** Users can browse and consume content independently on the app and website, supporting a seamless, user-driven experience.
- **Automated Services:** Personalized news recommendations and notifications tailored to individual preferences.
- **Community Interaction:** User comments, likes, and discussions foster a sense of community.
- **Co-Creation:** Users contribute feedback, ideas, and can report on local events, enhancing content relevance.

## Channels



### Customer Channels

- **Digital Presence:** App, website, and social media platforms, where users primarily engage and access news content.
- **Email & Notifications:** Newsletters, alerts, and updates delivered directly to users for continuous engagement.

### Channel Phases

1. **Awareness:** Social media marketing, SEO, and targeted ads to increase brand visibility.
2. **Evaluation:** Free access to curated articles and sample content showcases our quality.
3. **Purchase:** In-app subscription options for users to upgrade to premium, ad-free experiences.
4. **Delivery:** Real-time content updates on app and website for seamless access.
5. **After-Sales Support:** FAQ, in-app support, and email assistance to resolve user issues.

### Channel Efficiency

- **Cost-Effective Channels:** Social media and newsletters for low-cost, broad reach.
- **Integrated User Experience:** Personalized notifications and content ensure regular user engagement.

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## Customer Segments



### Target Customers

- **Mass Market:** General public seeking reliable news across various topics, including politics, entertainment, health, and technology.
- **Niche Market:** Specific demographics interested in specialized content, such as local news or specific industries.

### Most Important Customers

- **Daily News Consumers:** Individuals who rely on quick access to timely news updates.
- **Community Engagers:** Users interested in local events and community discussions.
- **Subscribers:** Readers who prefer premium, ad-free content and enhanced features.

## Channels



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# Cost Structure

## Key Costs:

- **Server Costs:** Expenses related to hosting, maintenance, and data storage for the app and website.
- **Labor Costs:** Salaries for the central journalist and freelance authors, ensuring quality content creation.
- **Marketing Expenses:** Budget for social media promotions, ads, and outreach efforts.

## Cost-Related Insights:

- **Key Resources:** Server hosting is one of the most significant costs.
- **Key Activities:** Content creation and community interactions drive substantial expenses.
- **Cost-Driven Approach:** The business model focuses on cost-efficiency by hiring freelance authors and utilizing automated systems.

## Cost Characteristics:

- **Fixed Costs:** Salaries for the central journalist, hosting fees.
- **Variable Costs:** Freelance author payments, marketing costs can fluctuate based on strategy.
- **Economies of Scale:** As the user base grows, server costs per user may increase.

# Revenue Streams

## Revenue Streams

- **Advertising Revenue:** Income from ads displayed in the app and on the website.
- **Premium Subscriptions:** Users pay for an ad-free experience and exclusive content.
- **Donations and Sponsorships:** Funding from users and organizations supporting the platform.

## Customer Payment Insights:

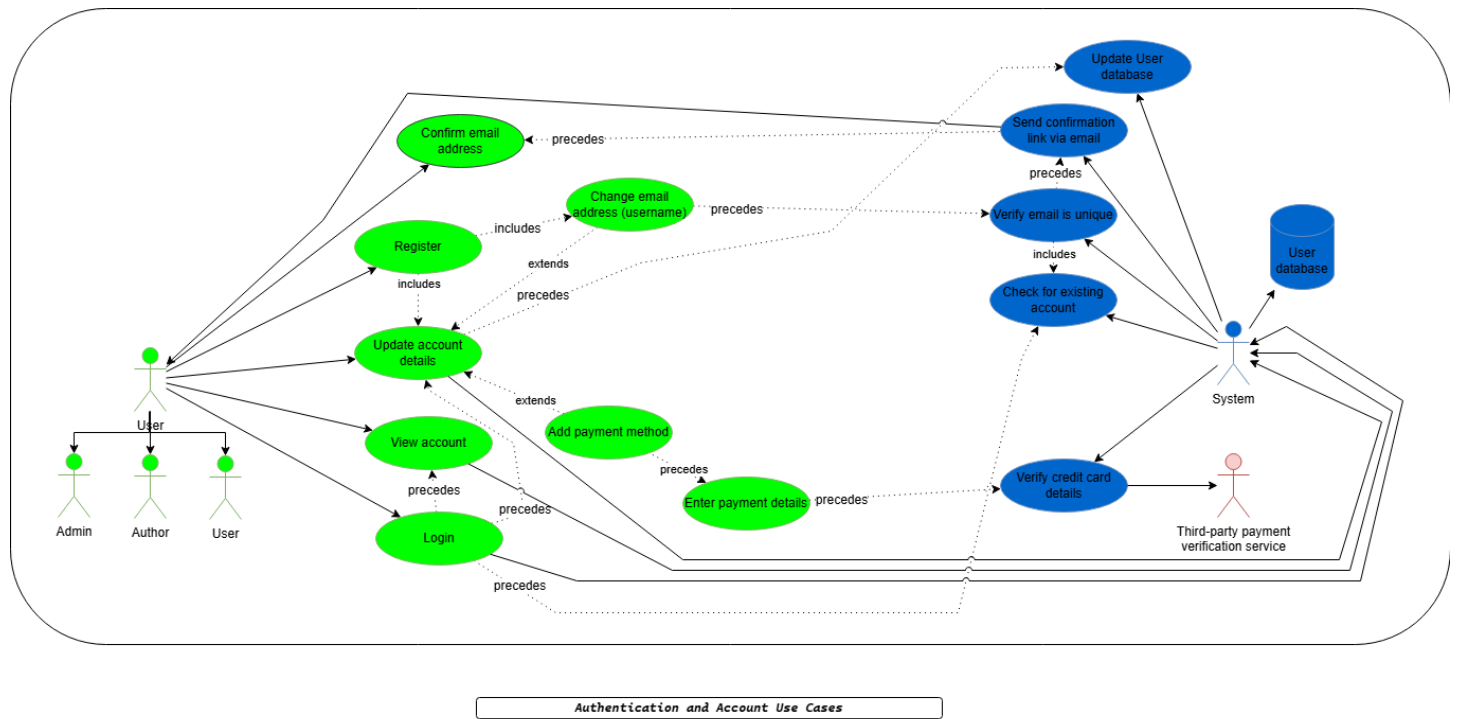
- Customers value high-quality, reliable news and are willing to pay for enhanced experiences.
- Current payment methods include subscriptions via credit/debit cards and ad revenue from advertisers.
- Preferred methods may include mobile wallets and in-app purchases.

## Revenue Contribution:

- **Advertising:** ~60%
- **Premium Subscriptions:** ~30%
- **Donations/Sponsorships:** ~10%

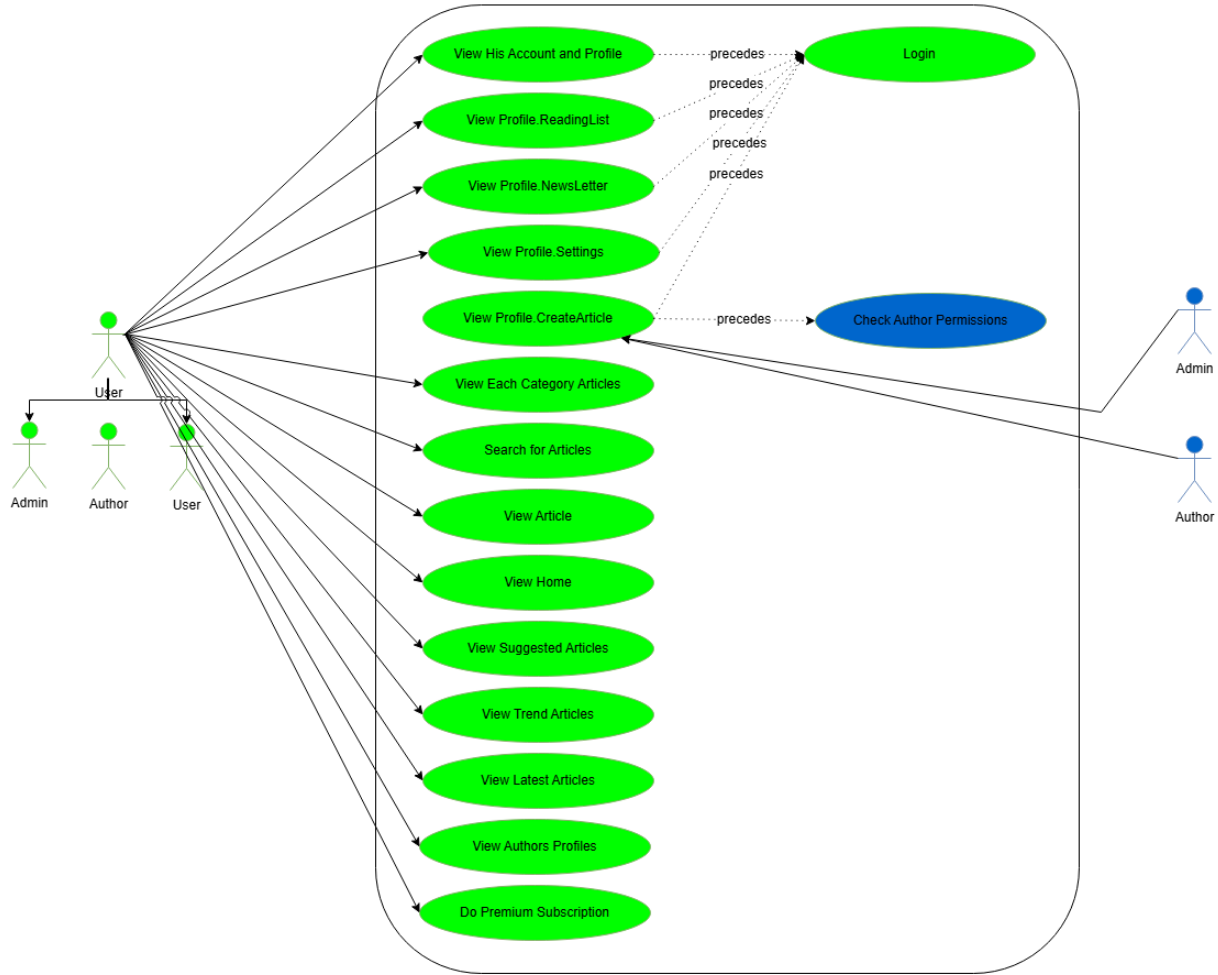


# Use Case Diagram





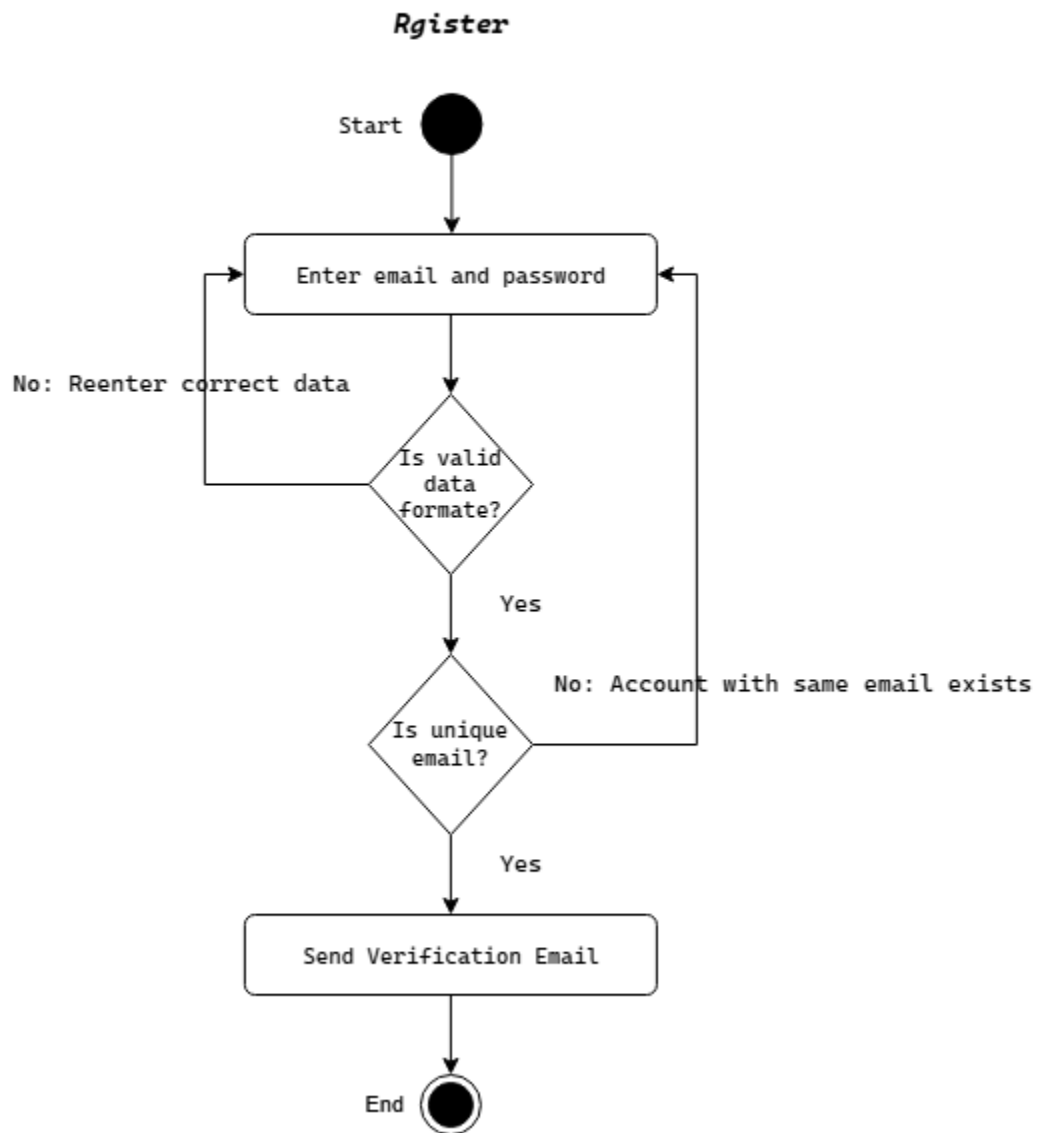
*Admin Use Cases*



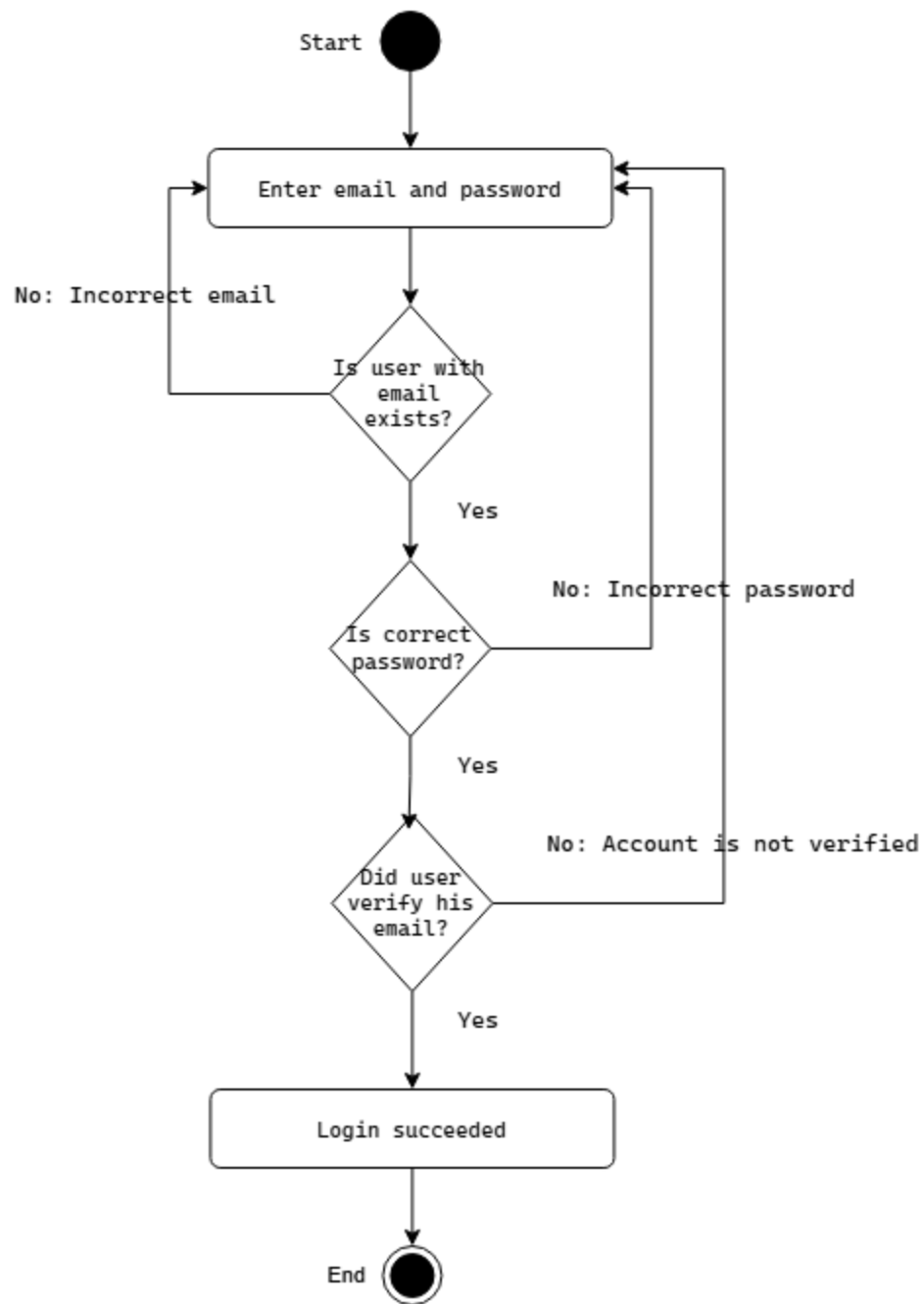
Main User Use Cases

## Activity Diagram

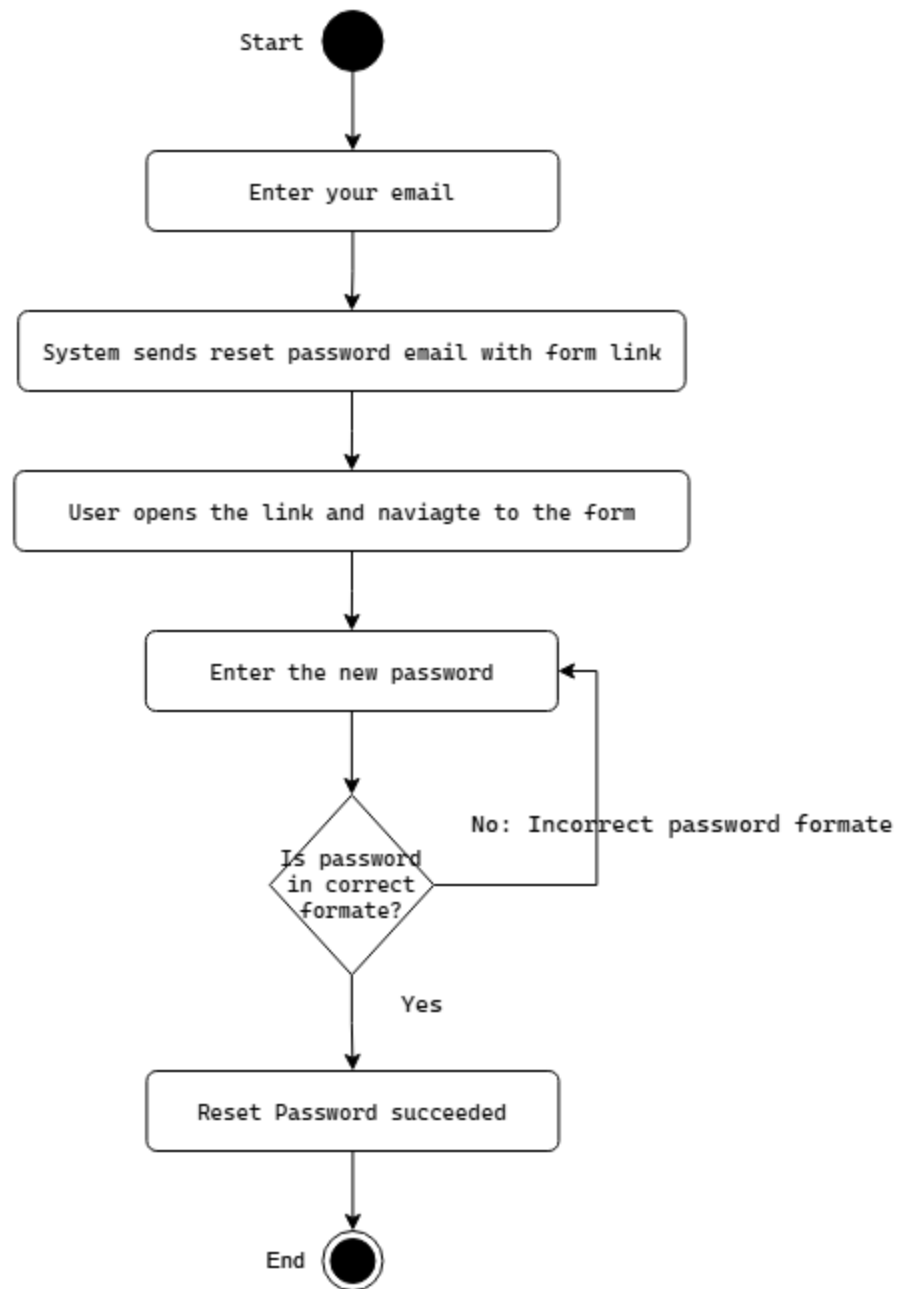
### Activity Diagrams for FactEcho



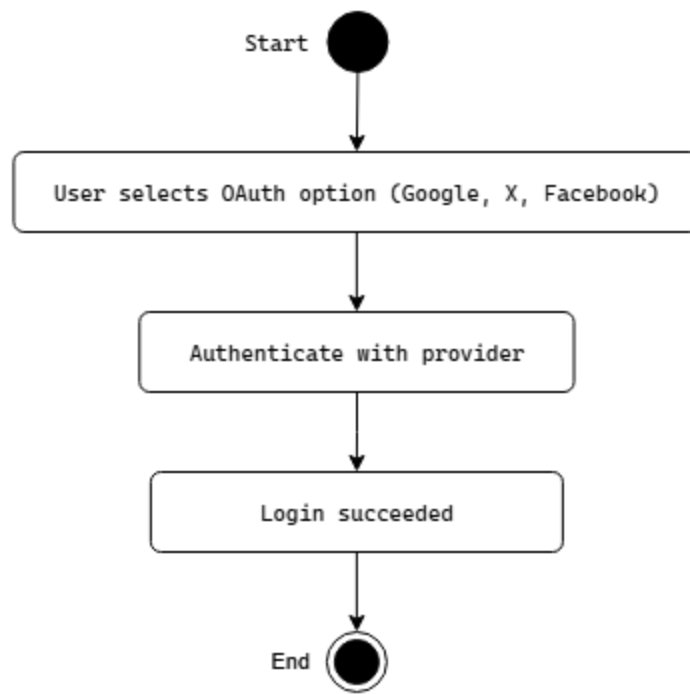
## Login



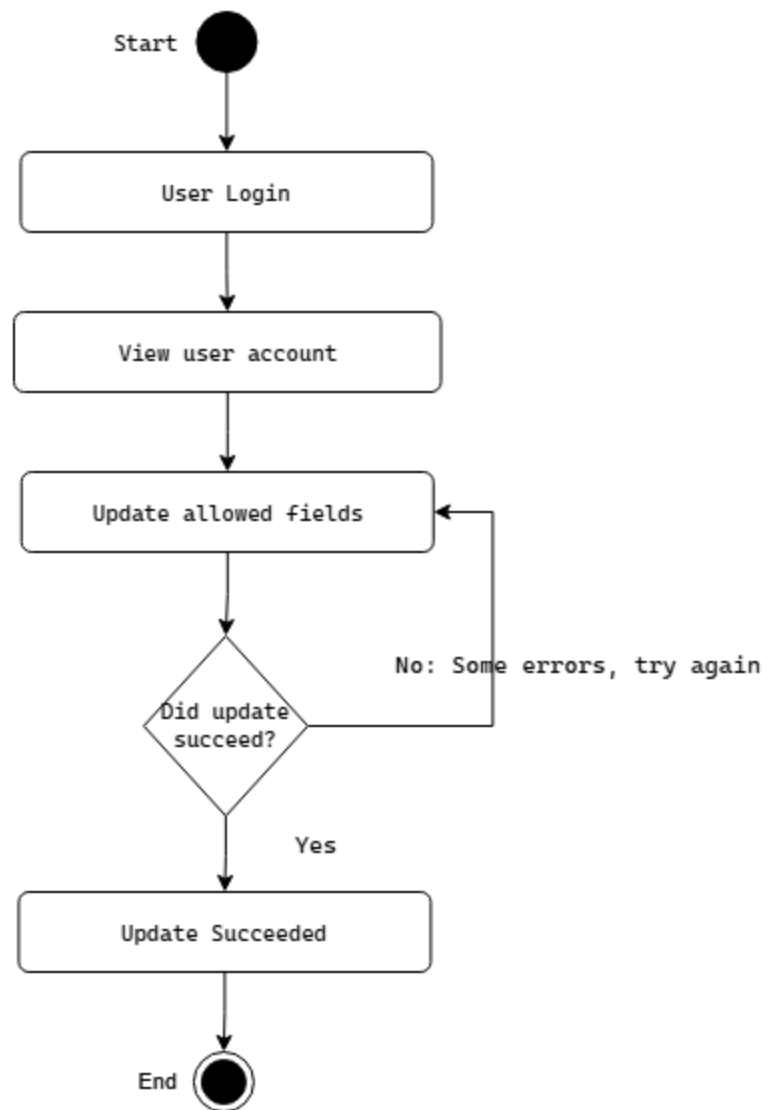
## Reset Password



## *OAuth Login*

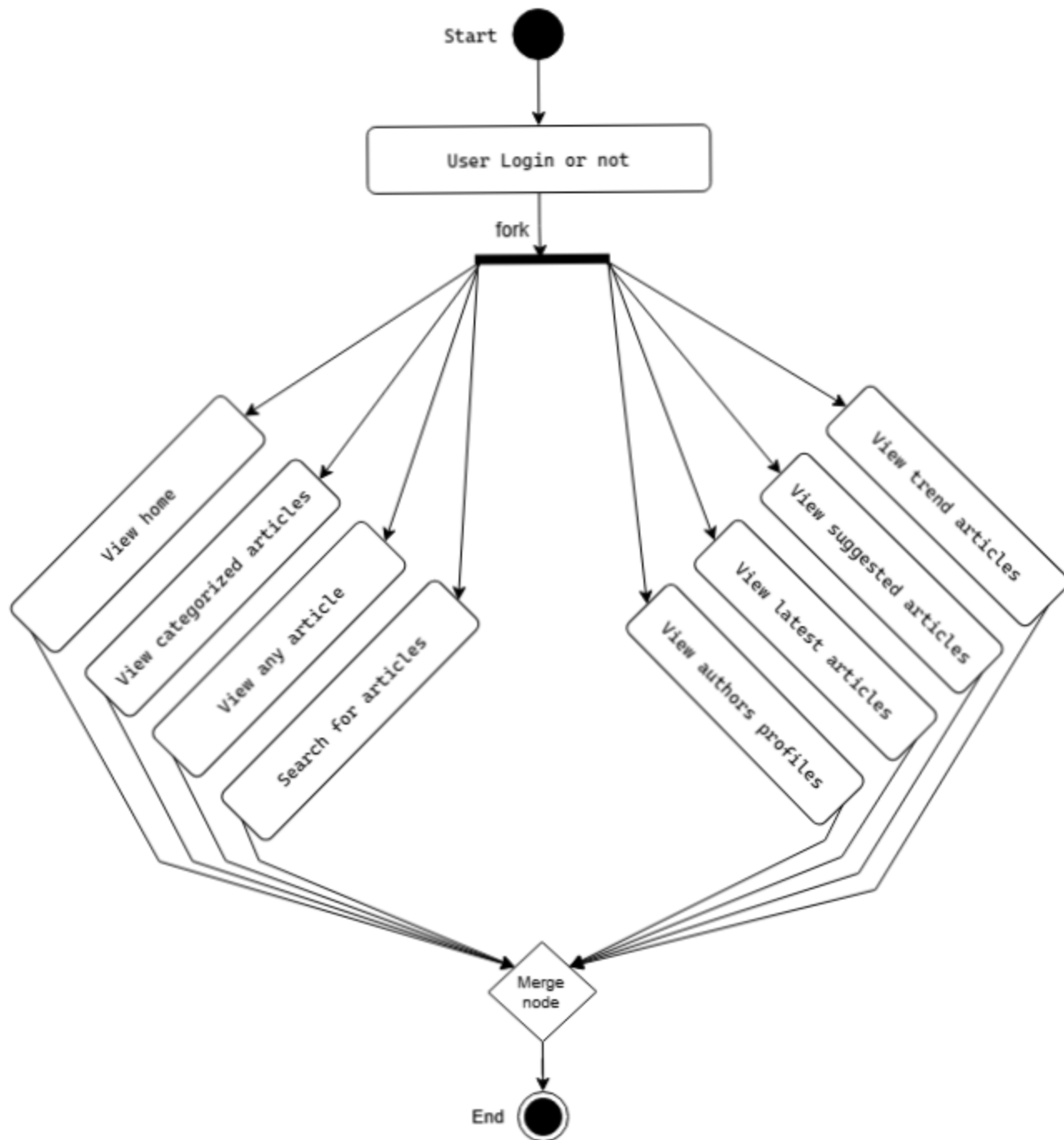


## Update Profile

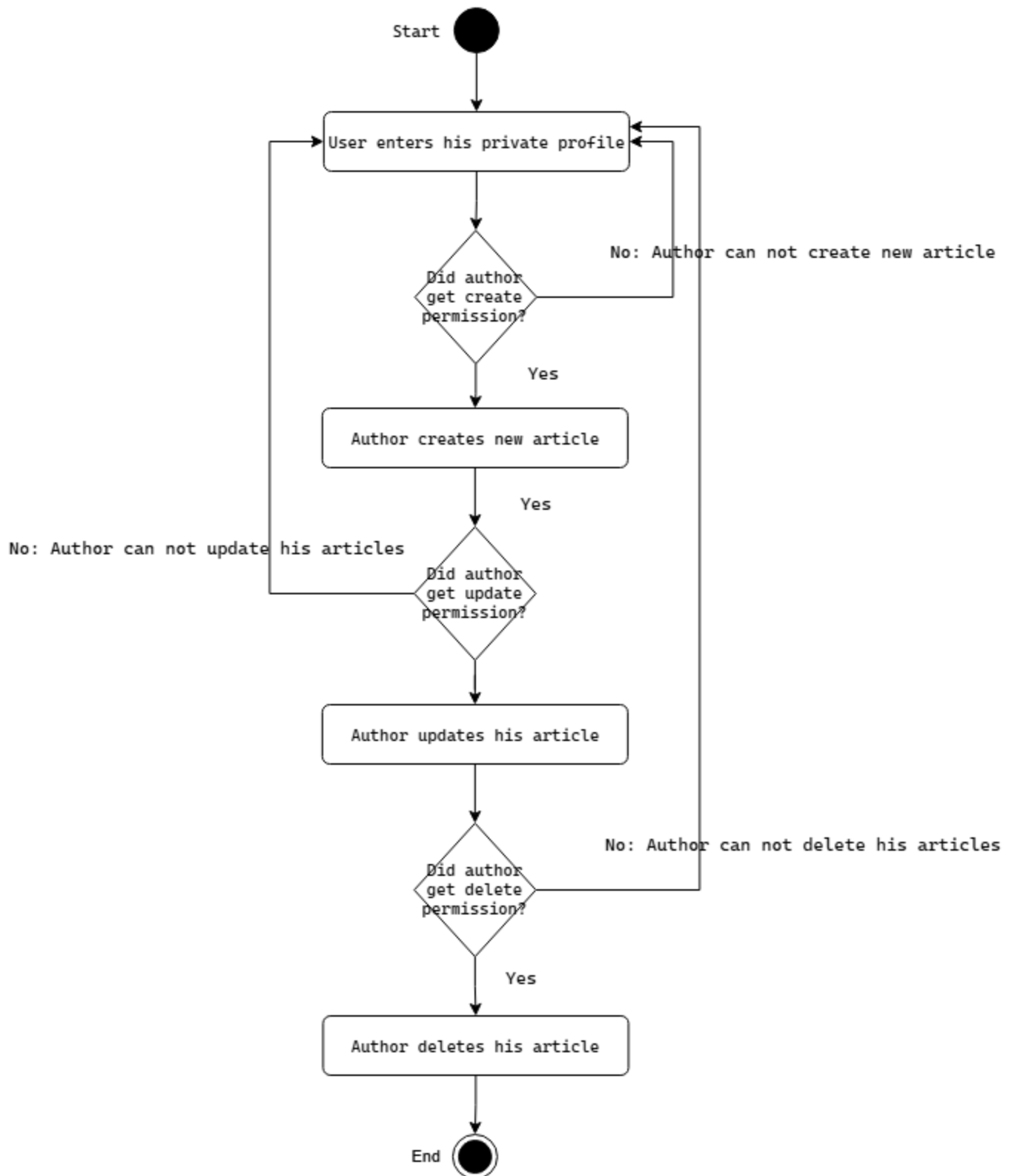




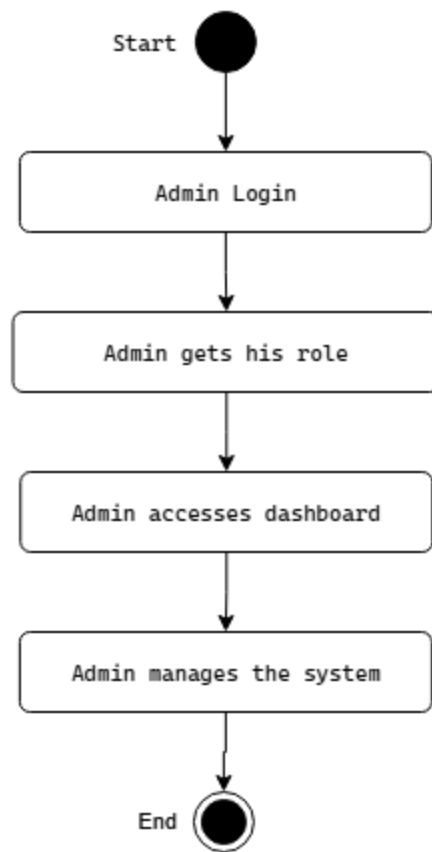
## Access Content



## Author Articles Management



## *Admin Dashboard*



## Technologies Used

- Analysis and design: draw.io, docs
- Frontend: HTML, CSS, TypeScript, React.js, Tailwind CSS
- Backend: Node.js, TypeScript, Express.js
- Testing: Jest
- Database: Postgres
- Media Storage: Cloudinary or Firebase
- Authentication: JWT (JSON Web Tokens)

## Clients

we'll start with a single web client..

The web client will be implemented in React.js.

The App will take design like <https://www.ajnet.me/> and <https://www.bbc.com/arabic>.

See design snapshots here [./UI.Snapshots.md](#).

API server will serve a static bundle of the React app.

Uses Tailwind CSS UI for building the CSS components.

## Hosting

The code will be hosted on Github.

The web server and client will be hosted on vercel platform as a test prototype.

The server should be hosted at paid VIM.

The client should have a domain name and SSL/TLS.

The server will have closed CORS policy except for the domain name and the web host server.