BUSINESS-CONNECT

Introduction:

In today's fast-paced digital world, business is evolving more rapidly than ever before. As global markets expand and technologies integrate into every sector, the need for meaningful business connections, real-time collaboration, and instant access to knowledge is more critical than at any point in history. With much of professional interaction shifting online, entrepreneurs, startups, and business professionals increasingly rely on digital platforms to share ideas, seek guidance, and grow their ventures.

Recognizing this shift, our project introduces a dedicated **business-focused social media platform**—a virtual space designed to connect business enthusiasts, investors, legal advisors, and industry experts under one digital roof. Here, users can showcase their ventures, participate in live seminars, join hackathons, seek legal guidance, form like-minded communities, and share insights on a dynamic business feed. By blending AI-powered tools with a collaborative environment, the platform not only encourages innovation but also empowers users to build networks that matter—fostering a smarter, more connected business world.

Scope:

The scope of this project centers on building a dedicated social media platform for business enthusiasts, legal advisors, investors, and business educators. Registered users will go through a guided onboarding process where they set up profiles with roles, interests, achievements, and company details—enabling a personalized feed and relevant recommendations.

Users can organize or participate in business contests, interact through dynamic post feeds, create or join business-focused groups and pages, and attend both free and paid seminars. The platform will also support legal assistance, direct messaging, audio/video calls, and AI chatbot support for business queries.

Future extensions may include video content sharing, advertisements by companies, and other forms of user-generated business media, creating a vibrant and interactive digital ecosystem for the modern business community.

Users and Their Roles:

Our platform will support several user roles, each with specific access and responsibilities tailored to their business needs:

1. **Anonymous Users:**
   Visitors who have not registered can browse limited sections of the platform, such as previews of hackathons, public posts, or seminar listings. To access full features, they must register.

2. **Registered Users:**
   General users who sign up and complete their profile can:

   - Share business ideas and posts
   - Participate in hackathons and seminars
   - Follow others and join interest-based groups and pages
   - Chat with mentors, legal advisors, or use the AI chatbot
   - Receive personalized content based on their interests

3. **Investors:**
   Users registered as investors can:

   - View promising startups and ideas
   - Discover potential co-founders or business partners
   - Join contests as judges or mentors
   - Follow trends and engage with business communities

4. **Legal Advisors:**
   Legal professionals can:

   - Offer consultation services
   - Review and assist with legal documents
   - Answer user queries through AI-assisted or manual support
   - Be matched with users seeking legal help

5. **Business Educators:**
   These users can:

   - Host webinars, seminars, or upload recorded sessions
   - Share curated educational content
   - Interact with learners and offer mentorship

6. **Company Pages:**
   Registered users or teams can create and manage company profiles similar to business

pages, enabling:

- ○ Sharing of product info, updates, and business content
- ○ Hosting sponsored contests or promotional events
- ○ Connecting with followers and potential partners

7. **Admin Users:**
   Admins oversee the entire platform, with abilities to:

- ○ Approve or reject contests
- ○ Monitor user activity and moderate content
- ○ Manage hackathon logistics, user roles, and system analytics
- ○ Ensure safe and productive interactions across the platform

This structured role system ensures that every participant—from casual user to legal expert—has a meaningful and productive place within the platform.

Use Cases of the System

UC01: User Registration and Profile Setup

- **Actors**: Anonymous User, System

- **Description**: An anonymous user initiates the registration process by providing essential credentials such as email and password. After verifying the email, the user is guided through an interactive setup process to input their **interests**, **achievements**, **industry professional roles** (e.g., investor, legal advisor, business educator), and **affiliated company page**, resulting in a customized user experience.

- **Outcome**: A personalized, active user profile with contextual feed preferences is created.

UC02: Create and Share Business Post

- **Actors**: Registered User, System

- **Description**: A user composes a post — such as a business idea, proposal, or update — by providing a title, content, and optional media. Posts are categorized for relevance

and added to the dynamic feed of the followee.

- **Outcome**: The post becomes visible on the user's timeline,followees' feeds and on others based on content relevance.

UC03: Organize a Sponsored Hackathon

- **Actors**: Admin/Business User, System

- **Description**: Users can submit proposals for organizing a business-themed hackathon or challenge. After review and approval by the admin, the event is published, including judges, prizes, deadlines, and problem statements.

- **Outcome**: Hackathon is live with user registrations, submission tracking, and leaderboard updates.

UC04: Join and Participate in Contests

- **Actors**: Registered User, System

- **Description**: Users can browse ongoing contests, join solo or as a team, and submit their solutions. Submitted entries are evaluated and scored by judges or AI systems.

- **Outcome**: Contest status updated; results and awards are declared upon evaluation.

UC05: Legal Assistance Request

- **Actors**: Registered User, Legal Advisor, System

- **Description**: A user can either generate a draft of business/legal documents (e.g., NDA, MoU) using the integrated AI chatbot or request human assistance. The user can then schedule a consultation with a verified legal advisor.

- **Outcome**: Document draft available; legal support appointment scheduled.

UC06: One-on-One Mentorship Match

- **Actors**: Registered User (Mentee), Mentor, System

- **Description**: The user provides business goals, preferences, or skill areas they wish to improve. The system recommends potential mentors based on mutual compatibility. The user sends a request which the mentor can accept or decline.

- **Outcome**: Matched pair can initiate chat, voice, or video sessions.

UC07: Create or Join Groups and Pages

- **Actors**: Registered User, System

- **Description**: Users can create public or private groups (e.g., industry-specific, regional, or project-based) or follow company pages. Group interaction includes posting, discussion threads, and event announcements.

- **Outcome**: Group or page becomes an interactive space for community engagement.

UC08: Attend Live or Recorded Seminars

- **Actors**: Registered User, System

- **Description**: Users can register for upcoming live seminars, join real-time sessions, or view previously recorded ones. Events may be free or paid, and personalized suggestions are provided based on user profile and activity.

- **Outcome**: The user engages with educational content and network opportunities.

UC09: Follow or Message Other Users

- **Actors**: Registered User, System

- **Description**: A user visits another user's profile and clicks "Follow" to receive updates or "Message" to start a private conversation. Messaging supports text, file sharing, voice, and video.

- **Outcome**: User is added to follower/following list; private conversation begins.

UC10: AI-Generated Content Assistance

- **Actors**: Registered User, System (AI Modules)

- **Description**: While composing a post, pitch, or profile bio, the user can enable AI suggestions for rewrites, tone adjustments, keyword generation, or summarization.

- **Outcome**: Enhanced quality and engagement of the content before publishing.

UC11: Suggest Startups or Investors

- **Actors**: Registered User, System

- **Description**: Based on the user's role and preferences (e.g., startup founder, investor), the system recommends compatible entities for partnership, investment, or mentorship using AI-based profiling.

- **Outcome**: Potential matches for collaboration or funding are displayed.

UC12: Multimedia and Business Showcase

- **Actors**: Company Page Admin, System

- **Description**: A business page admin can upload promotional videos, short explainers, product showcases, or run sponsored ads targeted at specific user roles or industries.

- **Outcome**: Content published and distributed to relevant users in the feed or sidebar.

UC13: Contest Evaluation and Leaderboards

- **Actors**: System, Judges, Admin

- **Description**: Once a contest concludes, judges (or AI auto-grading tools) evaluate submissions based on predefined criteria such as innovation, viability, and ROI(Return on Investment).

- **Outcome**: Ranked leaderboard published, winners announced.

UC14: Content Moderation and Reporting

- **Actors**: Registered User, Admin, System
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- **Description**: Users can report inappropriate or spam content. The system uses AI to flag and temporarily hide flagged content while admin reviews and decides.
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- **Outcome**: Platform safety and quality maintained.

UC15: Interact with Posts (Like, Comment, Share)

- **Actors**: Registered User, System

- **Description**: Users browsing their personalized feed or a group/page can interact with individual posts in multiple ways:

  - **Like** a post to express approval or support.
  - **Comment** to provide feedback, ask questions, or initiate discussions.
  - **Share** the post to their own feed, a group, or via external link to promote its reach.

- The system tracks each interaction and updates post engagement metrics accordingly. Commenting supports threaded replies.

- **Outcome**: Post engagement increases, content visibility expands, and community interaction is enhanced.

AI Feature Integration Plan

To enhance functionality, personalization, and platform intelligence, the system will integrate AI capabilities in a phased, scalable manner. The features are organized into three strategic tiers based on complexity and infrastructure requirements.

Core AI Enhancements(Must implement)

These features are lightweight, high-impact, and readily deployable using existing APIs and tools.

- **AI Post Composer** – Suggests titles, rewrites content, and generates hashtags.
- **Semantic Search** – Enables natural-language search using vector similarity.
- **Chatbot Assistance** – Provides legal/startup help via RAG-based AI chatbot.
- **Post Summarization** – Generates concise summaries of long content.
- **Basic Moderation** – Flags inappropriate text using pre-trained models.

Intelligent Interaction Layer

These features require user behavior analysis, model fine-tuning, or more structured data.

- **Personalized Feed Ranking** – Curates content based on preferences and activity.
- **Mentor & Investor Matching** – Suggests connections using semantic profiling.
- **Contest Auto-Evaluation** – Scores text-based submissions using AI.
- **Engagement Prediction** – Estimates potential performance of posts.
- **Voice-to-Text Conversion** – Transcribes audio for search and accessibility.

Advanced AI Systems(Long-term goals)

Complex, infrastructure-heavy features intended for platform expansion and scale.

- **Recommendation Engine** – Embedding-based suggestions for content and connections.
- **Voice Cloning & Multilingual TTS** – Converts voice across languages.
- **Adaptive Learning Paths** – Personalized learning or contest suggestions.
- **Anomaly Detection** – Flags bots and fraud via behavioral analysis.
- **AI Video Generation** – Creates short video explainers from posts or pitches.

Technology Stack

Backend

- **Spring Boot** – REST API framework
- **JPA & Hibernate** – ORM for database operations
- **PostgreSQL** – Primary relational database
- **Redis** – Caching & session management
- **Apache Kafka** *(optional)* – Event streaming
- **Vector DB (FAISS/Pinecone)** *(optional)* – Semantic search & recommendations
- **ML Serving (ONNX/TensorFlow Serving)** *(optional)* – For AI features
- **Docker** – Containerization
- **Kubernetes** *(optional)* – Deployment orchestration
- **Maven** – Build & dependency management

Frontend

- **React.js** – Dynamic single-page UI

Infrastructure & DevOps

- **Git** – Version control
- **CI/CD** – GitHub Actions / Jenkins *(optional)*
- **Embedded Tomcat** – Web server (via Spring Boot)
- **Cloud Hosting** – AWS / Azure / GCP *(planned)*

Databases

- **PostgreSQL** – Structured data
- **Redis** – Cache & real-time data
- **Vector DB** *(optional)* – AI-based features