**CS 691: Software Development Project (Section: 1)**

**Website Conceptualization and Development Planed**

**LIU Bank Website Development Plan**

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**1. Website Overview**

**Concept & Purpose**

LIU Bank(Leading Innovative User-centric Banking) is a digital banking platform designed to enhance financial management through secure, intuitive, and technology-driven solutions. By modernizing traditional banking processes, LIU Bank simplifies transactions, offers investment management tools, and delivers personalized financial services to individual and businesses.

**Mission Statement:**

“LIU Bank is committed to transforming digital banking by providing a secure, user-friendly, and innovative platform that enables individuals and businesses to manage their finances with ease. Our goal is to integrate cutting-edge technology into banking services, ensuring efficiency, accessibility, and financial growth.”

**Addressing Key Challenges:**

Traditional ban king often lacks speed, convenience, and user-friendly interfaces. Liu Bank addresses these issues by:

* Enhancing the digital banking experience with a seamless interface.
* Strengthening security measures to prevent fraud and cyber threats.
* Providing AI-powered financial recommendations for better money management.
* Simplifying onboarding with minimal paperwork.
* Offering 24/7 customer support and financial advisory services.

**2. Identifying Target Users**

**User Groups and Their Needs**

**1. Retail Customers (Individuals & Families)**

**Demographics:** Young professionals, students, families.

**Interests:** Digital banking convenience, budgeting tools, secure transactions.

**Requirements:** Easy account management, mobile banking, AI-driven financial insights.

**Solution:** A user-friendly mobile app offering transaction tracking, automated savings, personalized financial guidance, and fraud protection.

**1. Business Clients(Small & Medium Enterprises - SMEs)**

**Demographics:** Entrepreneurs, startups, small business owners.

**Interests:** Efficient cash flow management, streamlined financial transactions.

**Requirements:** Business accounts, digital payments, payroll management, credit options.

**Solution:** Integrated invoicing, AI-based business insights, multi-user account access, and real-time financial tracking.

**2. Administrative Users (Bank Staff & System Administrators)**

**Roles:** Customer support teams, IT. Personnel, financial analysts, fraud prevention specialists.

**Interests:** Operational efficiency, fraud prevention, regulatory compliance.

**Requirements:** Secure access to customer data, fraud detection tools, account management systems.

**Solution:** A robust admin panel with access controls, AI-based fraud detection, real-time transaction monitoring, and compliance management.

**User Access & Role Differentiation**

**Customers & Business Clients**

Access personal or business banking dashboards.

Conduct transactions, receive financial insights, and customize security setting.

**Administrative Users**

* Manage customer accounts and handle support requests.
* Monitor transactions for fraud and compliance.
* Oversee system security and platforms functionality.

**3. Key Features & Unique Offerings**

**1. Hassle-Free Digital Onboarding:** AI-driven identity verification for quick and secure account creation.

**2. AI-Powered Financial Assistance:** Automated budgeting and smart financial recommendations.

**3. Advanced Security Framework:** Multi-factor authentication, biometric login, and fraud detection.

**4. Instant Transfer & Payments:** Real-time transactions, bill payments, and peer-to-peer transfers.

**5. Integrated Investment Tools:** Access to stocks, mutual funds, and cryptocurrency management.

**6. Comprehensive Business Banking:** Automated invoicing, payroll solutions, and business credit options.

**7. 24/7 AI-Based Customer Support:** Chatbots and live assistance for real-time issue resolutions.

**8. Personalized Dashboard:** Custom financial tracking and tailored account management tools.

**Unique Selling Points (USPs)**

* AI-driven money management for smarter financial decisions.
* Blockchain-backend security for robust fraud protection.
* Integrated investment services to enhance financial growth.
* A multilingual and accessible user interface for broader reach.

**4. Development Roadmap**

**Phase 1: Research & Roadmap**

* Conduct market research and competitor analysis.
* Collect user feedback through surveys and focus groups.
* Identify compliance regulations and security benchmarks.

**Phase 2: Design**

* Create UI/UX wireframes and interactive mockups.
* Choose a professional color scheme emphasizing trust (e.g., blue and white).
* Implement accessibility features to enhance usability.

**Phase 3: Development**

**Front-End:** React.js with Tailwind CSS for a responsive UI.

**Back-End:** Node.js with Express.js for scalable functionality.

**Database:** PostgreSQL for transactional data, Firebase for real-time services.

**Third-Party Integrations:** OpenAI for financial insights, Plaid for bank connections, blockchain for security.

**Phase 4: Testing**

* Conduct usability testing with beta users.
* Perform security audits to detect vulnerabilities.
* Optimize performance for speed and scalability.

**Phase 5: Launch & Maintenance**

* Deploy using cloud solutions like AWS or Google Cloud.
* Implement real-time monitoring and maintenance strategies.
* Continuously update features based on user feedback and market trends.