**Bank Management System - One Page Approach Document**

**Project Objective**

To design and implement a secure, normalized, and efficient SQL-based Bank Management System that manages customers, accounts, transactions, loans, and employees with automation and optimized queries.

**Key Entities & Relationships**

Entities include Customer, Account, Transaction, Loan, Branch, Employee, and UserLogin. Relationships are defined with appropriate primary and foreign keys ensuring referential integrity.

**Database Design**

The database will follow normalization principles to remove redundancy. Constraints such as PRIMARY KEY, FOREIGN KEY, NOT NULL, UNIQUE, and CHECK will be enforced. Indexing will be applied for performance optimization.

**Automation & Security**

Stored procedures will automate deposits, withdrawals, and transfers. Triggers will maintain data integrity, and role-based access control will ensure secure data access. Transactions will follow ACID compliance.

**Additional Features**

Automated monthly statements, simulated SMS/email alerts for large transactions, and scalable design for future banking modules.