Bank Management System

Submitted By

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LAB PROJECT REPORT

This Report Presented in Partial Fulfillment of the course

CSE312: Database Management System

DAFFODIL INTERNATIONAL UNIVERSITY

Dhaka, Bangladesh

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DECLARATION

I hereby declare that this lab project has been done by me under the supervision of **Md. Sagar Hossen**, **Lecturer**, Department of Computer Science and Engineering, Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere as lab projects.

Submitted To:

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Md. Sagar Hossen

Lecturer,
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Submitted by

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COURSE & PROGRAM OUTCOME

The following course have course outcomes as following:.

Table 1: Course Outcome Statements

CO's	Statements
CO1	demonstrate a comprehensive understanding of fundamental database management concepts, including the relational data model, normalization techniques, and SQL basics
CO2	design, implement and optimize relational databases, incorporating advanced SQL queries, indexing techniques and query optimization strategies.
CO3	understand and analyze security measures, distributed database architectures and emerging trends in database management, demonstrating an understanding of the broader context and challenges in the field.

Table 2: Mapping of CO, PO, Blooms, KP and CEP

CO	PO	Blooms	KP	CEP
CO1	PO1	C1, C2	KP3	EP1, EP3
CO2	PO2	C2	KP3	EP1, EP3
CO3	PO3	C4, A1	KP3	EP1, EP2
CO4	PO3	C3, C6, A3, P3	KP4	EP1, EP3

The mapping justification of this table is provided in section **4.3.1**, **4.3.2** and **4.3.3**.

Table of Contents

Chapter 1

Introduction

Every chapter should start with 1-2 sentences on the outline of the chapter.

1.1 Introduction

In this project, my goal is to build a functional and efficient bank management system. The system will enable users from the administration and customers to gain unilateral access via the internet. Thus providing a seamless user experience and operations.

1.2 Motivation

My goal is to achieve a smooth and functional interface available over the internet and provide secure access from anywhere and anytime.

1.3 Objectives

1. Build a website.

2. Design a robust database

3. Ensure data integrity.

4. Establish data persistence and reduce redundancy.

1.4 Feasibility Study

In the banking sector of our country, competition is at an all time high right now. Almost all public and private banks have established their web presence. This is the perfect time to deploy this bank management system.

1.5 Project Outcome

We expect to build a system that users will be excited to experience. A new era in online banking should emerge after this project is completed.

Chapter 2

Proposed Methodology/Architecture

Every chapter should start with 1-2 sentences on the outline of the chapter.

2.1 Requirement Analysis & Design Specification

2.1.1 Overview

In this database, we have included several entities and appropriate attributes. We have established relationships between the entities to maintain data integrity. We have further normalized the relations to third normal form to ensure optimal performance.

2.1.2 Proposed Methodology/ System Design

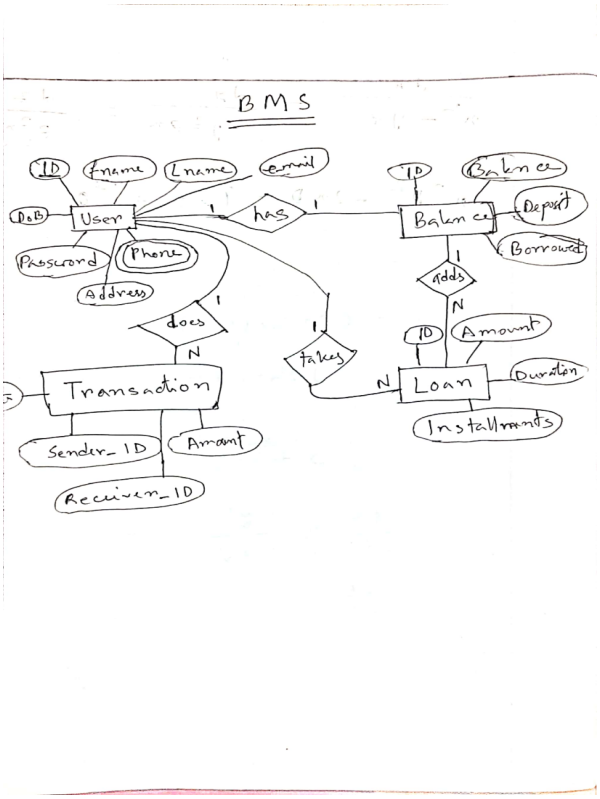
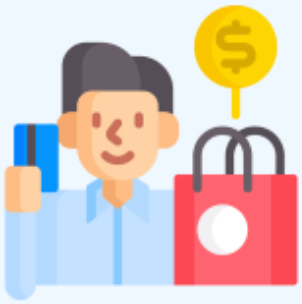


Figure 2.1: ER diagram

2.1.3 UI Design

Welcome.

Employee



Customer

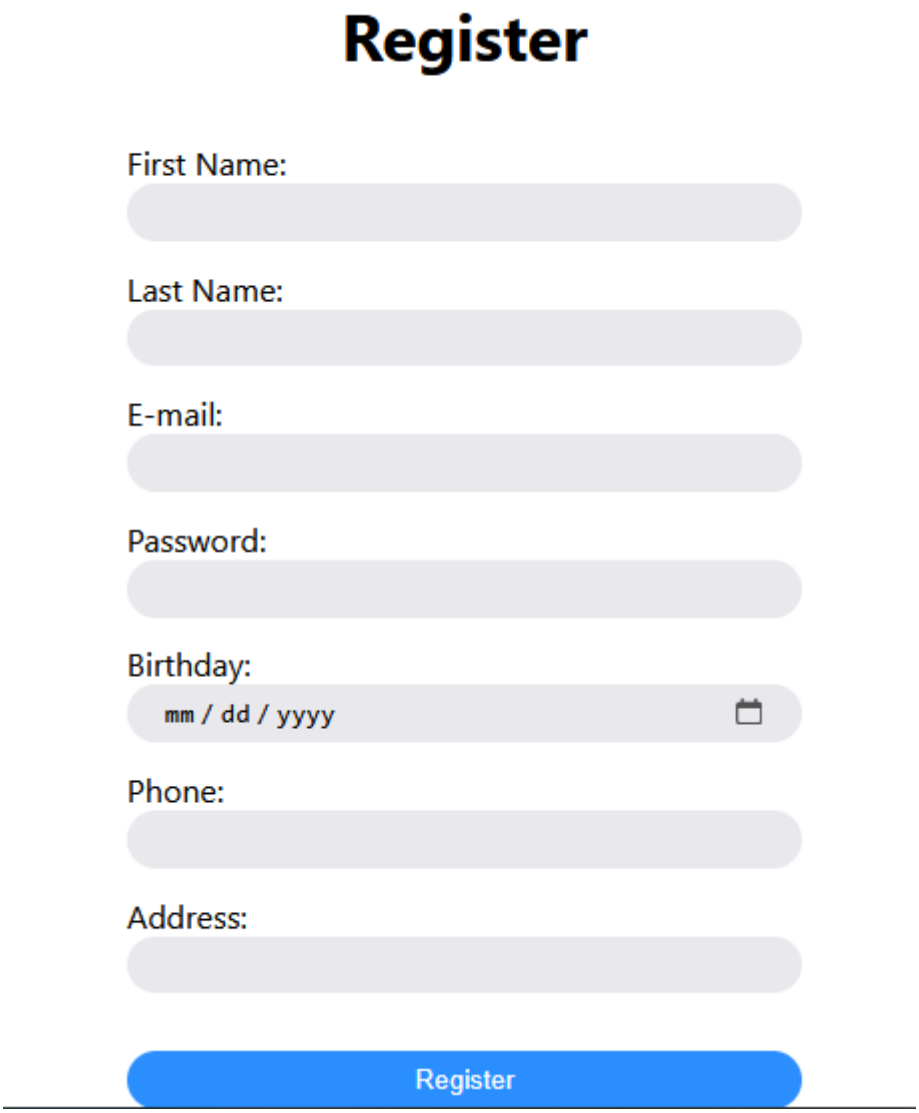
Login

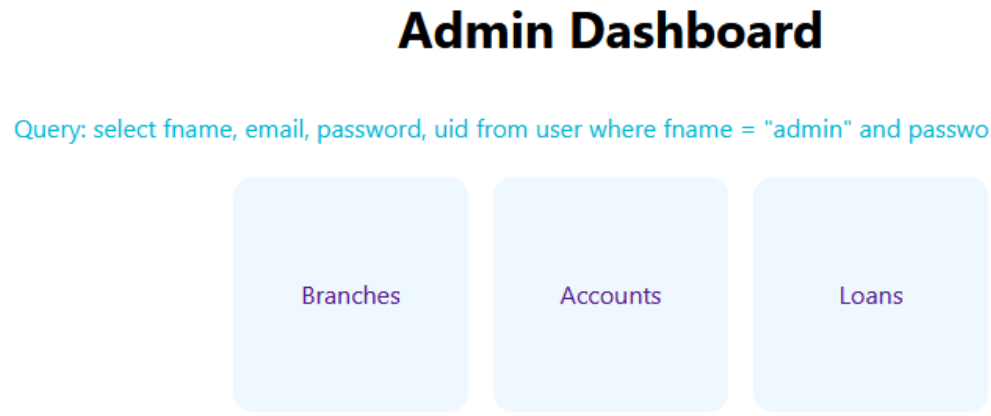
Username

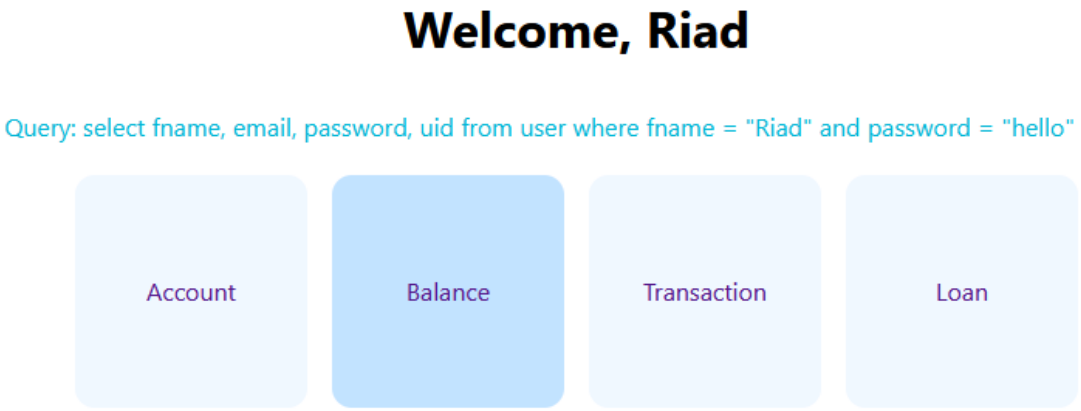
Password

Login

Register


Register
First Name:
Last Name:
E-mail:
Password:
Birthday:
mm / dd / yyyy
Phone:
Address:
Register


Admin Dashboard
Query: select fname, email, password, uid from user where fname = "admin" and password = "admin" limit 1
Branches
Accounts
Loans


Welcome, Riad
Query: select fname, email, password, uid from user where fname = "Riad" and password = "hello" limit 1
Account
Balance
Transaction
Loan

2.2 Overall Project Plan

We are building an online portal for our bank. The goal is to enable users to access their accounts anywhere anytime, safely.

So we have built a secure login system with options for new users to create accounts as well.

Bank employees have control over the functions of the core banking features with administrative privileges. Customers have the necessary features to complete their daily banking tasks including but not limited to checking balance, statement, transfer funds to other accounts, and view their loans.

Overall a robust experience for employees and customers so they can be happy banking with this system.

Chapter 3

Implementation and Results

Every chapter should start with 1-2 sentences on the outline of the chapter.

3.1 Implementation

3.2 Performance Analysis

3.3 Results and Discussion

Chapter 4

Engineering Standards and Mapping

Every chapter should start with 1-2 sentences on the outline of the chapter.

4.1 Impact on Society, Environment and Sustainability

4.1.1 Impact on Life

4.1.2 Impact on Society & Environment

4.1.3 Ethical Aspects

4.1.4 Sustainability Plan

4.2 Project Management and Team Work

Provide a cost analysis in terms of budget required and revenue model. In case of budget, you must show an alternate budget and rationales.

4.3 Complex Engineering Problem

4.3.1 Mapping of Program Outcome

In this section, provide a mapping of the problem and provided solution with targeted Program Outcomes (PO's).

Table 4.1: Justification of Program Outcomes

PO's	**Justification**
PO1	Justification of PO1 attainment
PO2	Justification of PO2 attainment
PO3	Justification of PO3 attainment

4.3.2 Complex Problem Solving

In this section, provide a mapping with problem solving categories. For each mapping add subsections to put rationale (Use Table 4.2). For P1, you need to put another mapping with

Knowledge profile and rational thereof.

Table 4.2: Mapping with complex problem solving.

EP1 Dept of Knowledge	**EP2** Range of Conflicting Requirements	**EP3** Depth of Analysis	**EP4** Familiarity of Issues	**EP5** Extent of Applicable Codes	**EP6** Extent Of Stakeholder Involvement	**EP7** Inter-dependence

4.3.3 Engineering Activities

In this section, provide a mapping with engineering activities. For each mapping add subsections to put rationale (Use Table 4.3).

Table 4.3: Mapping with complex engineering activities.

EA1 Range of resources	**EA2** Level of Interaction	**EA3** Innovation	**EA4** Consequences for society and environment	**EA5** Familiarity

Chapter 5

Conclusion

5.1 Summary

In summary, a new milestone in digital transition in this age for the banking sector of Bangladesh. We are gearing up to face the challenge and erase the digital divide between all classes of citizens.

5.2 Limitation

Some advanced features such as online payments to merchants is not yet included. We will keep working to ensure latest and greatest features are provided to our users.

5.3 Future Work

Implementation of kyc (know your customer) verification, online payments, recurring payments, bio-metric security etc. will be gradually implemented.