Web Application to Help People Find and Support Sustainable Businesses

Jahin Ferdous, Mohammed Showharwade Neshad,
Zayan Zaman, Sazin Noor, Ramisa Nawar

Introduction

This project addresses the challenges in finding sustainable businesses. Our solution involves a comprehensive web application connecting consumers, investors, and businesses.

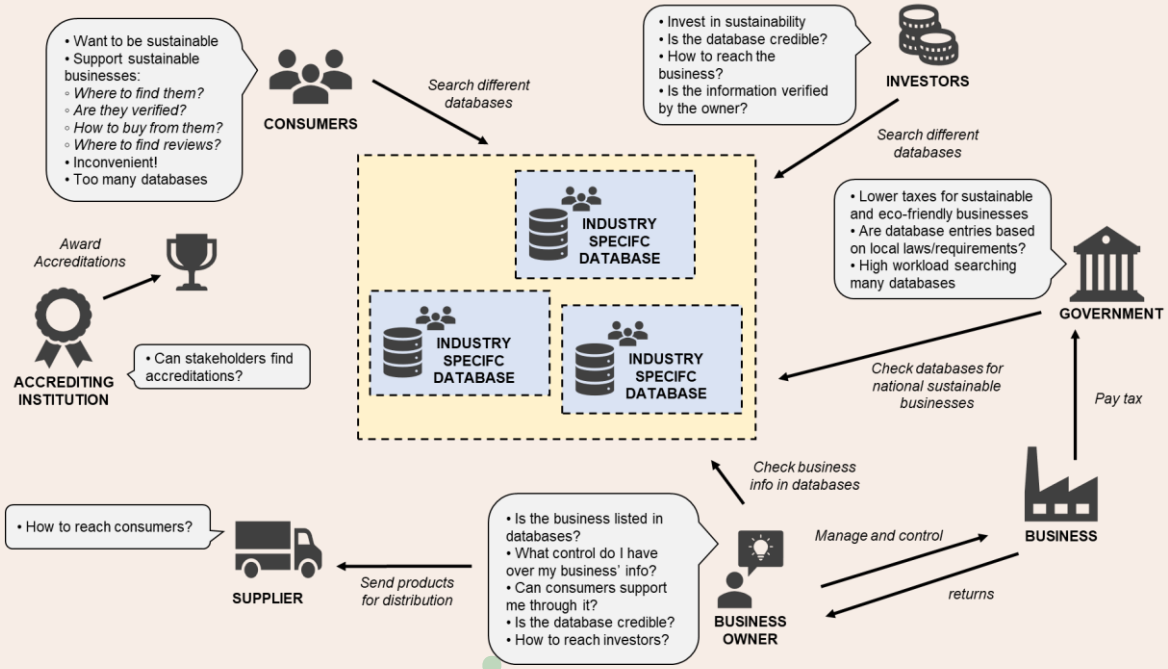
Table of contents

01

Rich Picture

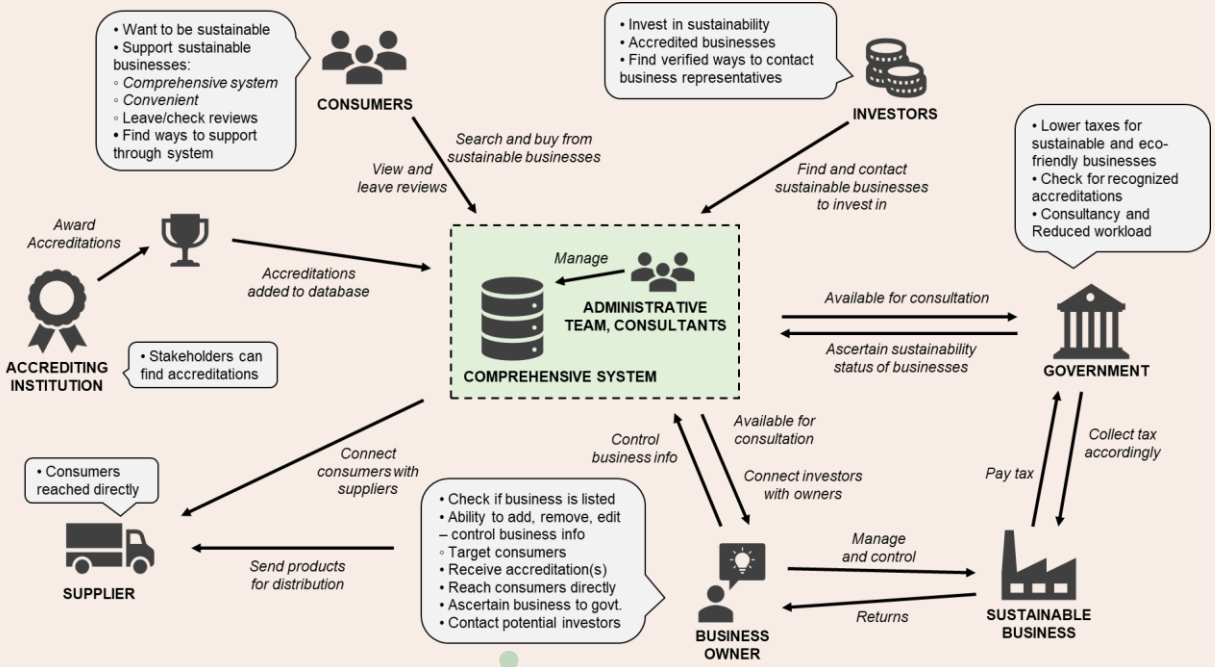
Rich Picture: Existing System

The existing system is complex and inconvenient. Stakeholders search multiple industry-specific databases with credibility concerns. Gaps in the system hinder direct support, communication, and clear data integrity.



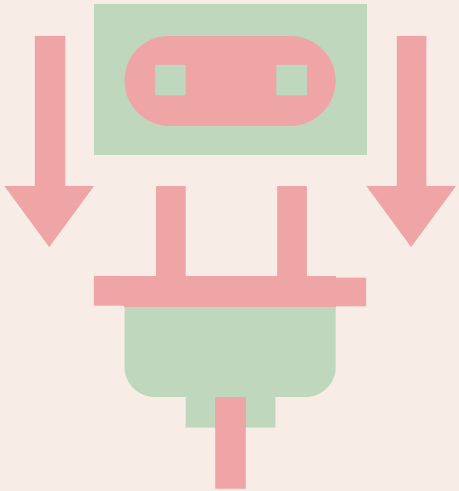
Rich Picture: Proposed System

The proposed system enhances service convenience. It establishes links between stakeholders and ensures data credibility. Stakeholders have more control, credibility, and engagement with sustainable businesses.



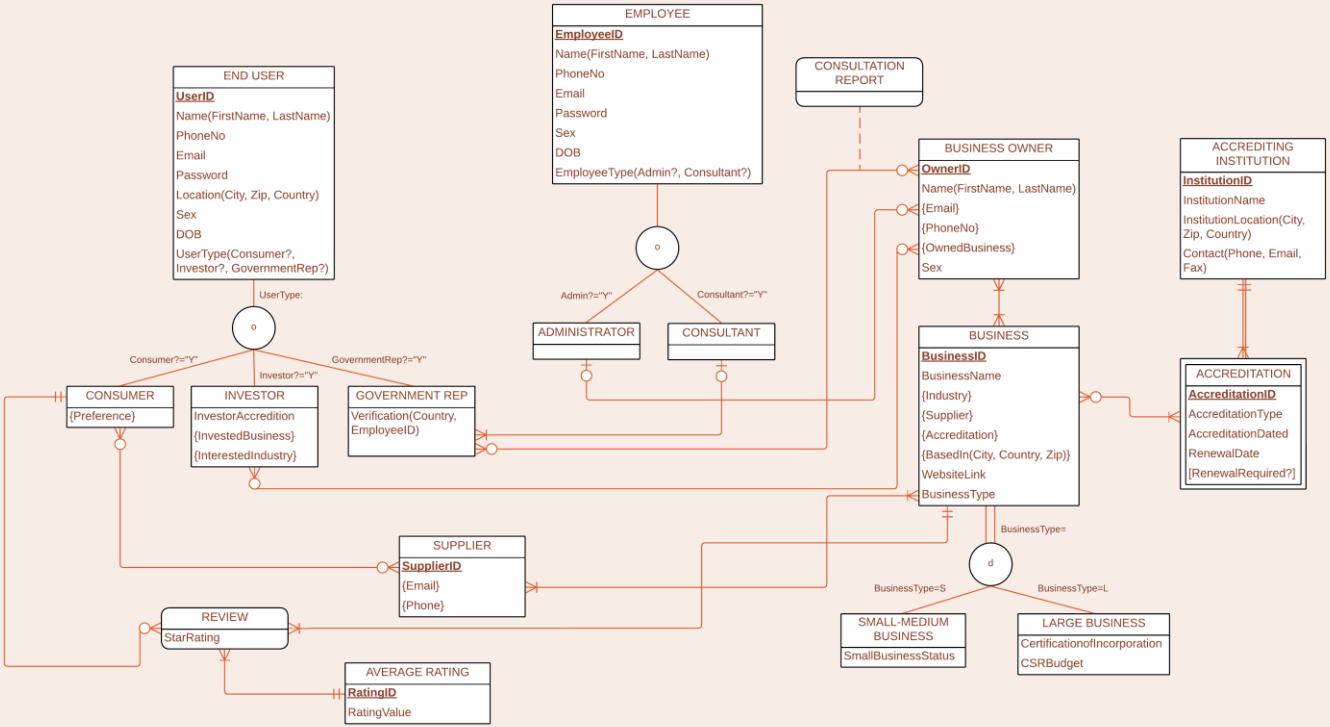
02

Entity Relationship Diagram



Entity Relationship Diagram

The Entity Relationship Diagram (ERD) outlines the data model, entities, attributes, and relationships in the proposed system. It forms the framework for structuring the database.



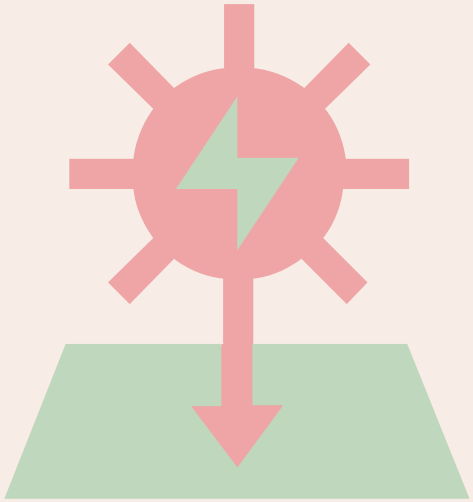
Business Rules: Extracts

Key Rules:

- Business owners can own one or multiple businesses.
- Administrator work with multiple business owners.
- Investors and consumers can search a comprehensive database
- Accreditations are awarded by accrediting institutions.
- Governments can ascertain the sustainability status of businesses.

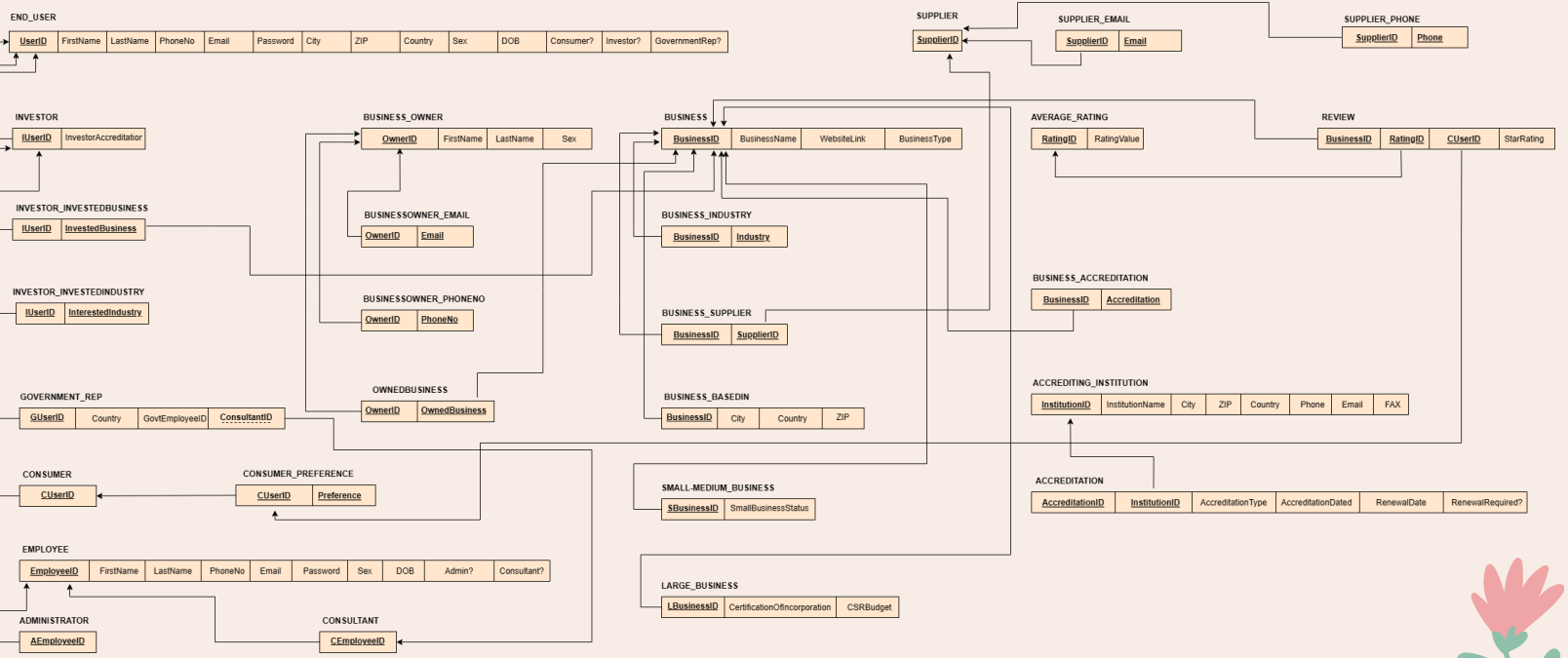
03

Relational Schema



Relational Schema

The Relational Schema logically represents the structure of the proposed relational database. It highlights relations, attributes, and primary/foreign keys.



04

Normalization

Normalization

The schema is normalized to reduce redundancy, organizing data efficiently.

1NF

No repeating groups and at least one primary key

E1	E2	E3	E4	E5	E6	E7	E8	E9	E10
U1	U2	U3	U4	U5	U6	U7	U8	U9	U10
U11	U12	U13	U14	C1	I1	I2	G1	G2	**S1**
S2	S3	X1	**R1**	R2	**O1**	O2	O3	O4	O5
O6	**B1**	B2	B3	B4	B5	B6	B7	B8	M1
L1	L2	**AI1**	AI2	AI3	AI4	AI5	AI6	AI7	AI8
A1	A2	A3	A4	A5					

2NF

Partial dependencies are eliminated.

E1	E2	E3	E4	E5	E6	E7	E8	E9	E10

U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	U11	U12	U13	U14

R1	R2

O1	O2	O3	O4	O5	O6	B1	B2	B3	B4	B5	B6	B7	B8	A1	A2	A3	A4	A5	S1	S2	S3

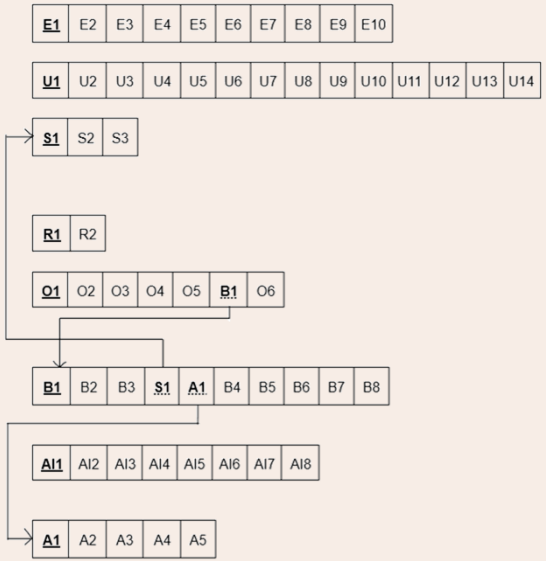
AI1	AI2	AI3	AI4	AI5	AI6	AI7	AI8

Normalization

The schema is normalized to reduce redundancy, organizing data efficiently.

3NF

No transitive dependencies



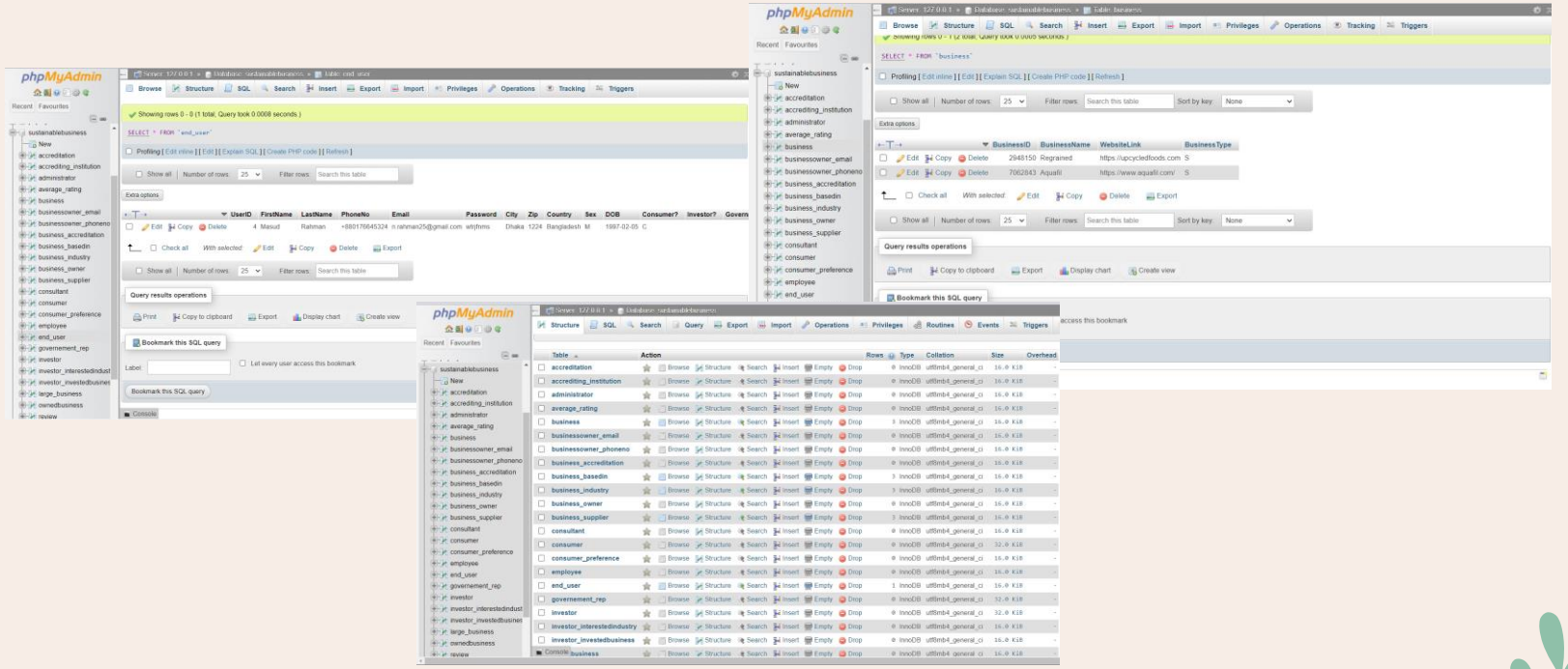
BCNF

The relations in 3NF are also in BCNF

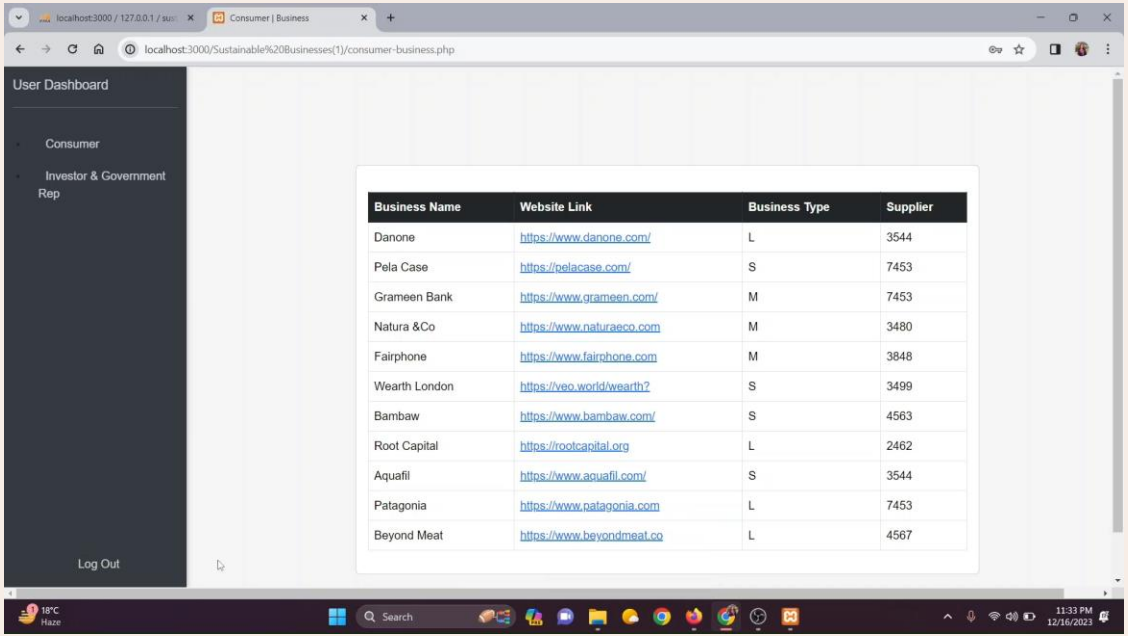
05

Implementation

Implemented Tables: Extracts



Demonstration



https://drive.google.com/file/d/1nEtxpH1U45ZQz57w3RBnpvBIQNl0L3GW/view?usp=sharing

Thanks

Questions?

Jahin Ferdous 2010321
Mohammed Showharwade Neshad 2010398
Zayan Zaman 2110540
Sazin Bin Noor 2110806
Ramisa Nawar 2120297