SDG 3: Good Health and Well-Being

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SDG Overview – Good Health and Well-Being

Objective: Ensure healthy lives and promote well-being for all at all ages.

Disease Incidence Rates: Tracking the incidence of major communicable and non-communicable diseases.

Healthcare Access: Measuring the proportion of the population with access to quality health services and essential medicines.

Healthcare Inequality: Disparities in access to quality healthcare between different regions and socio-economic groups.

Emerging Health Threats: Addressing the rise of new health threats and managing health crises like pandemics.

Importance: Good health and well-being are fundamental to the quality of life and economic development. Ensuring that all individuals can live long, healthy lives supports broader goals of equity and sustainable development.

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Problem Definition

High incidence of diabetes in the southern region.

High incidence of diabetes in the southern region is causing significant health challenges and economic burden. Data is needed to identify trends, risk factors, and areas requiring intervention.

Objectives: Identify diabetes prevalence rates.

Analyze demographic and lifestyle factors contributing to high diabetes incidence.

Provide insights for targeted health interventions.

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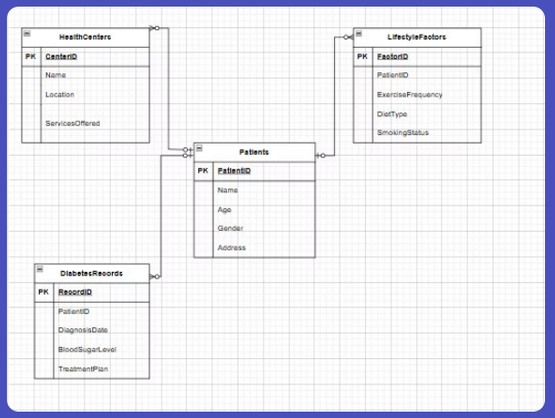
Database Design



Patients stores information about each patient. The PatientID is unique for every patient and serves as the primary key.

Diabetes Records records each patient's diabetes-related information. It includes a unique RecordID and references PatientID to link back to the Patients entity.

Lifestyle Factors tracks lifestyle factors that might affect diabetes management. It also includes a unique FactorID and references PatientID to associate with the respective patient.

Health Centers holds data about health centers. Each center has a unique CenterID, name, location, and the services it offers.

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Schema Design

The schema is designed to facilitate the management and analysis of patient data, diabetes records, lifestyle factors, and health center information.

By using normalized tables with primary and foreign key relationships, the schema ensures data integrity and supports efficient querying and reporting.

Each table is tailored to capture specific aspects of patient and health center information, aiding in comprehensive data analysis and healthcare management.

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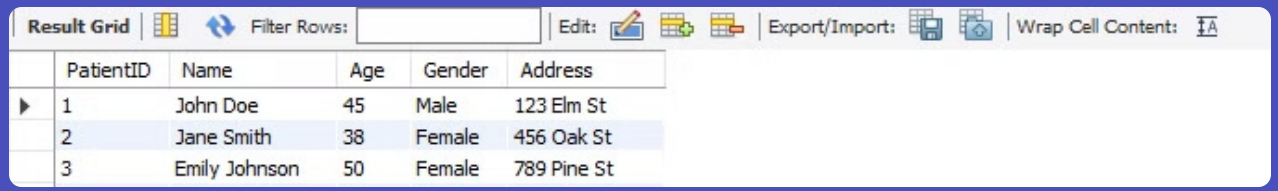
Sample Data

Patients Table

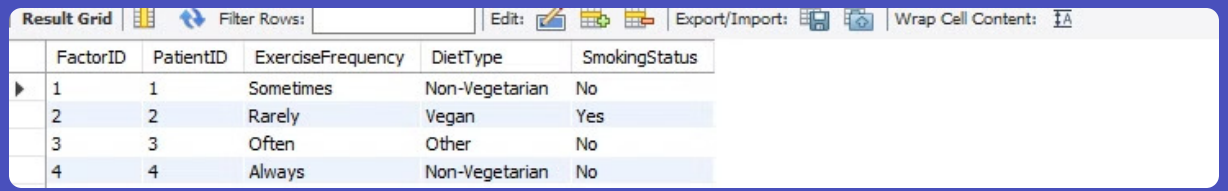


PatientID	Name	Age	Gender	Address
1	John Doe	45	Male	123 Elm St
2	Jane Smith	38	Female	456 Oak St
3	Emily Johnson	50	Female	789 Pine St

Diabetes Records Table

RecordID	PatientID	DiagnosisDate	BloodSugarLevel	TreatmentPlan
1	1	2024-01-15	180.00	Metformin 500mg twice daily
2	2	2024-02-10	210.00	Insulin therapy, 30 units daily
3	3	2024-03-05	220.00	Metformin 1000mg daily
4	4	2024-04-22	190.00	Insulin therapy, 25 units daily

Lifestyle Factors Table



FactorID	PatientID	ExerciseFrequency	DietType	SmokingStatus
1	1	Sometimes	Non-Vegetarian	No
2	2	Rarely	Vegan	Yes
3	3	Often	Other	No
4	4	Always	Non-Vegetarian	No

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Data Retrieval

```sql
USE health_db;
SELECT * FROM DiabetesRecords;
SELECT p.Name, d.DiagnosisDate, d.BloodSugarLevel
FROM Patients p
JOIN DiabetesRecords d ON p.PatientID = d.PatientID;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Name	DiagnosisDate	BloodSugarLevel
John Doe	2024-01-15	180.00
Jane Smith	2024-02-10	210.00
Emily Johnson	2024-03-05	220.00
Michael Brown	2024-04-22	190.00

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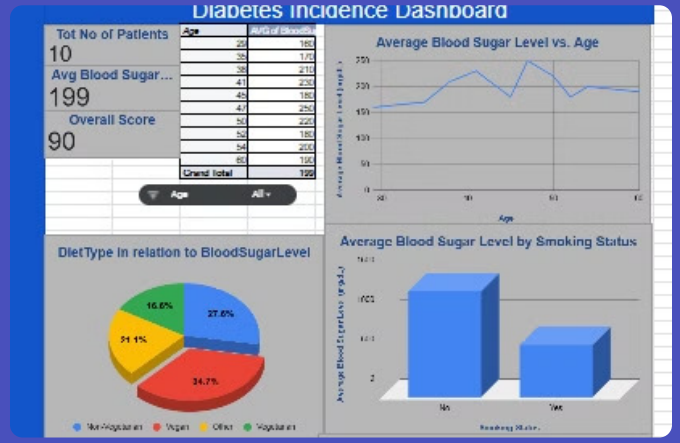
The Excel Dashboard provides a comprehensive and interactive tool for analyzing patient data, offering insights into blood sugar levels by age, patient distribution by smoking status, and temporal trends. Utilizing these features helps in making informed decisions and targeting health interventions more effectively.



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Average blood sugar levels increased with age.

Adjust health programs to address age-specific trends in blood sugar levels, such as increased monitoring or tailored treatment plans for older patients.

Develop and implement action plans based on the insights gained, such as modifying patient care approaches or launching targeted health initiatives.

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