-- Create the database

CREATE DATABASE finance\_db;

-- Use the database

USE finance\_db;

-- Create the 'users' table

CREATE TABLE users (

id INT AUTO\_INCREMENT PRIMARY KEY,

username VARCHAR(150) NOT NULL,

email VARCHAR(150) NOT NULL UNIQUE,

password\_hash VARCHAR(255) NOT NULL

);

CREATE TABLE accounts (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT NOT NULL,

card\_number CHAR(12) NOT NULL, -- Enforces exactly 12 characters

cardholder\_name VARCHAR(255) NOT NULL,

expiry\_date DATE NOT NULL,

cvv CHAR(3) NOT NULL, -- CVV length fixed to 4 for consistency

amount DECIMAL(10, 2) NOT NULL,

created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,

FOREIGN KEY (user\_id) REFERENCES users(id) ON DELETE CASCADE

);

-- Create the 'transactions' table

CREATE TABLE transactions (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

date DATE,

category VARCHAR(255),

type VARCHAR(50),

amount DECIMAL(10, 2),

description TEXT,

FOREIGN KEY (user\_id) REFERENCES users(id)

);

describe transactions;

-- Create the 'bills' table

CREATE TABLE bills (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT NOT NULL,

date DATE NOT NULL,

category VARCHAR(100) NOT NULL,

amount DECIMAL(10, 2) NOT NULL,

due\_date DATE NOT NULL,

description TEXT,

FOREIGN KEY (user\_id) REFERENCES users(id) ON DELETE CASCADE

);

CREATE TABLE accounts (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT,

card\_number VARCHAR(16),

cardholder\_name VARCHAR(100),

expiry\_date DATE,

cvv VARCHAR(3),

amount FLOAT,

FOREIGN KEY (user\_id) REFERENCES users(id)

);

-- Create the 'goals' table

CREATE TABLE goals (

id INT AUTO\_INCREMENT PRIMARY KEY,

user\_id INT NOT NULL,

goal VARCHAR(255) NOT NULL,

target\_amount DECIMAL(10, 2) NOT NULL,

current\_amount DECIMAL(10, 2) NOT NULL,

due\_date DATE NOT NULL,

FOREIGN KEY (user\_id) REFERENCES users(id) ON DELETE CASCADE

);

CREATE TABLE IF NOT EXISTS balance (

id INT AUTO\_INCREMENT PRIMARY KEY, -- Auto-incremented ID for each balance entry

user\_id INT NOT NULL, -- Reference to the user

amount DECIMAL(10, 2) NOT NULL DEFAULT 0, -- The current balance amount (in decimal format)

FOREIGN KEY (user\_id) REFERENCES users(id) ON DELETE CASCADE -- Assuming users table exists with id as primary key

);

INSERT INTO accounts (user\_id, card\_number, cardholder\_name, expiry\_date, cvv, amount)

VALUES (1, '1234567812345678', 'John Doe', '2025-12-31', '123', 100.50);

ALTER TABLE goals ADD COLUMN status VARCHAR(20) DEFAULT 'Pending';

ALTER TABLE users

DROP COLUMN mobile\_number;

select \* from finance\_db.accounts;