Coffee Explorers

Overview

The database will serve as the backend system for Coffee Explorers, a micro-roaster specializing in premium coffees sourced from around the world and sold exclusively through its website. Operating as an online-only business with approximately $250,000 in annual sales, Coffee Explorers serves a customer base of 1,500 unique buyers who collectively place 2,500 orders per year, with an average order value of $100. The company maintains a rotating selection of approximately 20 roasted coffees in its catalog at any given time.

The database will capture and manage product catalog data, customer profiles, payment information, and order transactions to support Coffee Explorers' growing operations.

Inventory management and procurement of coffee from vendors will not be included in this project. The system will operate under the assumption that all products are in stock and available for customer orders.

Database Outline

Coffees: Collection of the coffees we sell

- coffee_id: int, auto_increment, unique, not NULL, PK
- name: varchar(50), not NULL
- price: decimal(5,2), not NULL
- origin: varchar(50)
- roast_level: varchar(30)
- flavor_notes: varchar(500)
- Relationships: (M:N Orders), M:1 OrdersCoffees

Orders: Records of orders

- order_id: int, auto_increment, unique, not NULL, PK
- customer_id: int, not NULL, FK
- order_time_date: datetime, not NULL
- Relationships: (M:N Coffees), M:1 OrdersCoffees, M:1 Customers

OrdersCoffees: Intersection Table

- order_id: int, not NULL, PK, FK
- coffee_id: int, not NULL, PK, FK
- qty: int, not NULL, DEFAULT 1
- price_at_order: decimal(6,2) not NULL
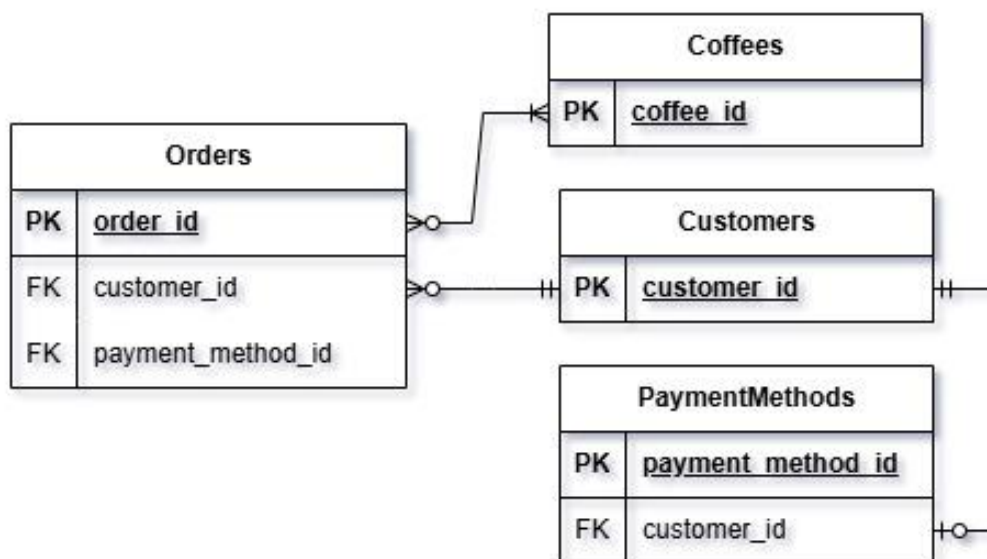- Relationships: 1:M Coffees, 1:M Orders

Customers: Customer contact information

- customer_id: int, auto_increment, unique, not NULL, PK
- first_name: varchar(50), not NULL
- last_name: varchar(50), not NULL
- street: varchar(50), not NULL
- city: varchar(50), not NULL
- state: varchar(2), not NULL
- zip: varchar(5), not NULL
- email: varchar(50), not NULL
- phone: varchar(10), not NULL
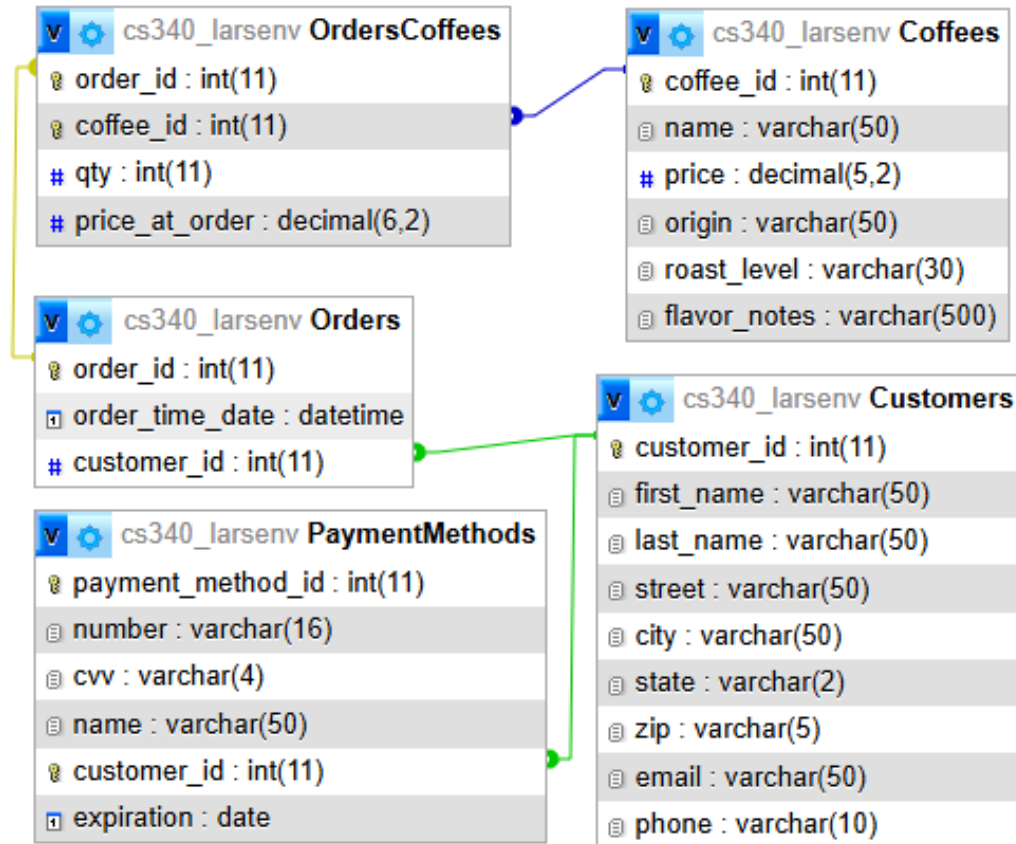- Relationships: 1:M Orders, 1:1 Payment Methods

PaymentMethods: Customer credit card information

- payment_method_id: int, auto_increment, unique, not NULL, PK
- number: varchar(16), not NULL
- cvv: varchar(4), not NULL
- name: varchar(50), not NULL
- customer_id: int, not NULL, FK
- expiration: varchar(4), not NULL
- Relationships: 1:M Orders, 1:1 Customers

Entity-Relationship Diagram

Schema Diagram

cs340_larsenv OrdersCoffees
- order_id : int(11)
- coffee_id : int(11)
- # qty : int(11)
- # price_at_order : decimal(6,2)

cs340_larsenv Coffees
- coffee_id : int(11)
- name : varchar(50)
- # price : decimal(5,2)
- origin : varchar(50)
- roast_level : varchar(30)
- flavor_notes : varchar(500)

cs340_larsenv Orders
- order_id : int(11)
- order_time_date : datetime
- # customer_id : int(11)

cs340_larsenv Customers
- customer_id : int(11)
- first_name : varchar(50)
- last_name : varchar(50)
- street : varchar(50)
- city : varchar(50)
- state : varchar(2)
- zip : varchar(5)
- email : varchar(50)
- phone : varchar(10)

cs340_larsenv PaymentMethods
- payment_method_id : int(11)
- number : varchar(16)
- cvv : varchar(4)
- name : varchar(50)
- customer_id : int(11)
- expiration : date

Example Data

Coffees

coffee_id	name	price	origin	roast_level	flavor_notes
1	Finca San Luis	18.49	El Salvador	Medium-Dark	Pulpy fruit notes bring a rustic edge to d bittersweetness, while low-acid and thi the focus on the intense cup flavors. Pl date, dark cocoa, Brazil nut.
2	Acatenango Gesha	24.99	Guatemala	Light	A lightly floral cup with refined sweetne fruit and spice, hints of raw cane sugar, honey, jasmine pearl tea, apple, pear, t whole cardamom and Allspice.
3	Uraga Yabitu Koba	20.24	Ethiopia	Medium	The cup has many features of both wet coffees, dynamic fruit flavors, clean sw body, grabby citrus aspect in the top en dried Turkish apricot.

Customers

customer_id	first_name	last_name	street	city	state	zip	email
2	Jane	Doe	750 Baker St	Portland	OR	97035	jane.doe@customer com
3	John	Smith	2474 Pine St	Eugene	OR	97401	john.smith@custom er.com
4	Lane	Johnson	146 Main St	Medford	OR	97535	lane.johnson@custo mer.com

Orders

order_id	customer_id	order_time_date
4	2	2024-11-23
5	3	2024-12-20
6	4	2025-01-05

PaymentMethods

Payment_method_id	number	expiration	cvv	name	customer_id
4	1234432156788765	2026-11-30	555	John Doe	2
5	4567432155558765	2028-01-31	151	John Smith	3
6	4321555545678765	2029-07-31	891	Lane Johnson	4

OrdersCoffees

Orders_order_id	Coffees_coffee_id	qty	price_at_order
4	1	2	18.49
4	2	1	24.99
4	3	1	20.24
5	1	2	18.49
5	3	3	20.24
6	1	2	18.49
6	2	3	24.99
6	3	1	20.24

Sources

Coffee names, origin, and flavor description in the Coffees table is taken from:
https://www.sweetmarias.com/el-salvador-dry-process-finca-san-luis-8399.html
https://www.sweetmarias.com/guatemala-acatenango-gesha-8404.html
https://www.sweetmarias.com/ethiopia-dry-process-uraga-yabitu-koba-8479.html