**CS348**

**Project – Stage 2**

**Database Design Schema**

*-- Sections Table: Represents different areas in the restaurant*

*-- Examples: Main Floor, Patio, Private Room, Bar Area*

CREATE TABLE sections (

id INTEGER PRIMARY KEY, -- Unique identifier for each section

name VARCHAR(50) NOT NULL, -- Section name (e.g., "Main Floor", "Patio")

description VARCHAR(200) -- Optional description of the section

);

*-- Tables Table: Represents physical dining tables in the restaurant*

*-- Organized by sections and has specific seating capacity*

CREATE TABLE tables (

id INTEGER PRIMARY KEY, -- Unique identifier for each table

number INTEGER NOT NULL, -- Physical table number used by staff

capacity INTEGER NOT NULL, -- Maximum number of guests the table can seat

section\_id INTEGER, -- Which section this table belongs to

FOREIGN KEY (section\_id) REFERENCES sections(id) -- Links table to its section

);

*-- Customers Table: Stores information about restaurant customers*

*-- Used to track who made the reservation and contact information*

CREATE TABLE customers (

id INTEGER PRIMARY KEY, -- Unique identifier for each customer

name VARCHAR(100) NOT NULL, -- Customer's full name

email VARCHAR(100) NOT NULL UNIQUE, -- Unique email for communications and identification

phone VARCHAR(20) NOT NULL -- Contact phone number

);

*-- Reservations Table: Tracks all dining reservations*

*-- Links customers to specific tables at specific times*

CREATE TABLE reservations (

id INTEGER PRIMARY KEY, -- Unique identifier for each reservation

date DATE NOT NULL, -- Date of the reservation

time TIME NOT NULL, -- Time of the reservation

duration INTEGER DEFAULT 120, -- Expected duration in minutes (defaults to 2 hours)

table\_id INTEGER, -- Which table is reserved

customer\_id INTEGER, -- Who made the reservation

guest\_count INTEGER NOT NULL, -- Number of guests expected

status VARCHAR(20) DEFAULT 'confirmed', -- Reservation status (confirmed/cancelled/etc)

created\_at DATETIME DEFAULT CURRENT\_TIMESTAMP, -- When the reservation was made

FOREIGN KEY (table\_id) REFERENCES tables(id), -- Links reservation to a specific table

FOREIGN KEY (customer\_id) REFERENCES customers(id) -- Links reservation to customer );