

Street Food and Local Eats Database Design Document

TEAM 6

1. Database Purpose

The purpose of the 'Street Food and Local Eats' database is to create a comprehensive and accessible digital platform that catalogs street food vendors and local eateries in the Boston area. It aims to facilitate the discovery of diverse culinary experiences, promote small food businesses, and provide valuable insights for food enthusiasts and tourists. The database serves as a bridge connecting customers with a wide range of dining options, enriching the local food culture and economy.

2. Business Problem Description

The database addresses the challenge of locating diverse street food options and local eateries in Boston. It aims to support small food businesses by increasing their visibility and accessibility, helping them to attract a larger customer base. Furthermore, the database seeks to enhance the culinary experience for users by providing detailed information on various dining options, including menus, reviews, and health inspection records.

3. Business Rules

- ☐ Multiple Users can prefer Multiple Cuisines
- ☐ A cuisine type is preferred by users and is offered by multiple vendors
- ☐ Each vendor is associated with one cuisine type but one cuisine type can be offered by multiple vendors
- ☐ A vendor offers one menu containing one or more dishes.
- ☐ A vendor operates in one or more location
- ☐ Health inspections are conducted on vendors and recorded with a score and comments
- ☐ User provides zero or more reviews to a vendor
- ☐ A user can write multiple reviews but each review is associated with only one user
- ☐ Each review is about a single vendor and a vendor can have multiple reviews
- ☐ A user can register for one or more events and each event will have multiple users
- ☐ A user registers for an event and an event registration record is created for each user-event pair
- ☐ A user can make multiple payments for different event registration, but each payment is linked to only one registration
- ☐ A payment has a status such as pending, confirmed or cancelled. An event organizer can have multiple vendors associated but vendor may be associated with one event organizer

4. DATABASE DESIGN

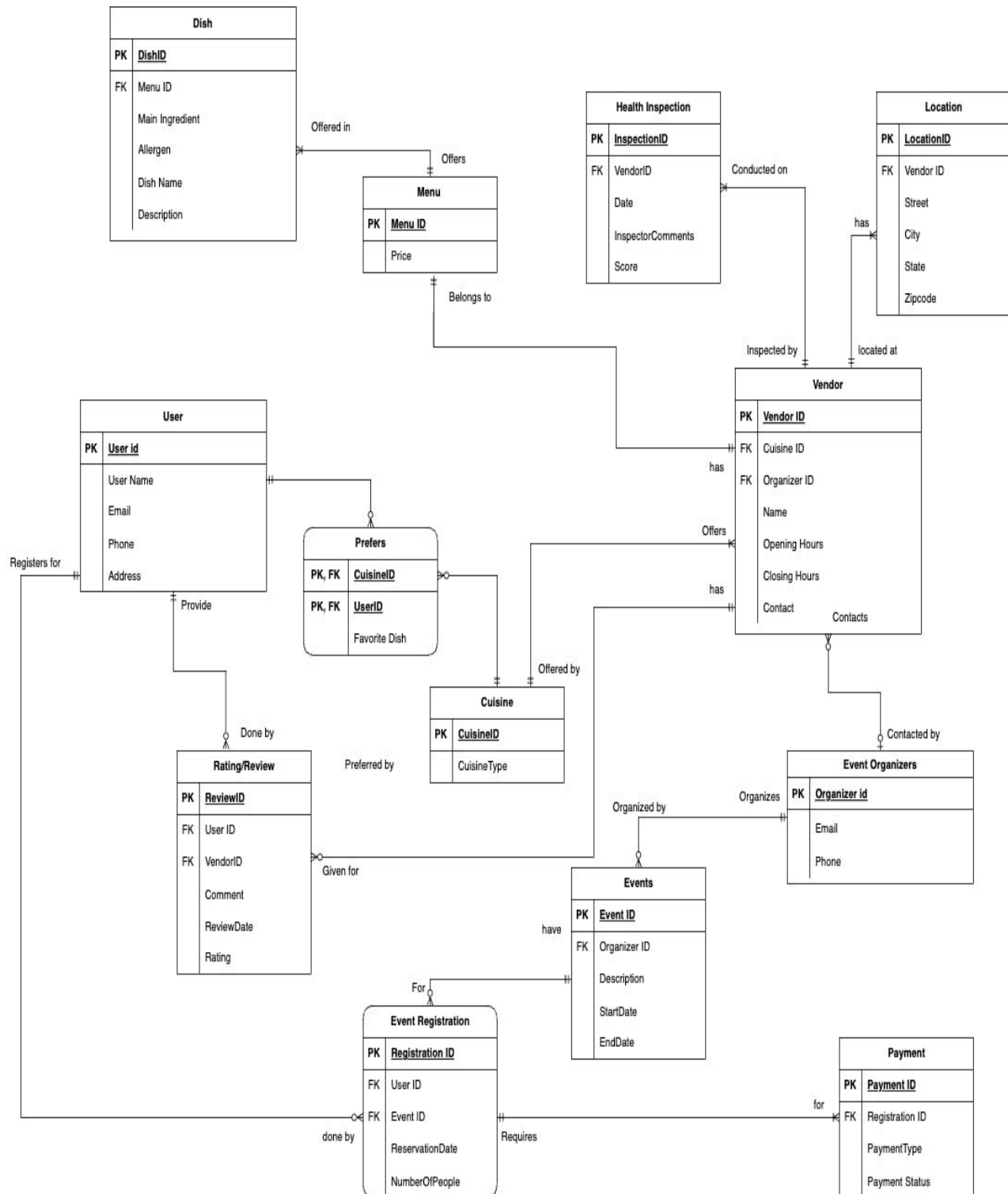
| Entity Name | Definition | Keys | Relationships |
|--------------------------|--|--|---|
| User | Represents a strong entity that holds User Information | <input type="checkbox"/> Primary Key – User ID | <input type="checkbox"/> User - Cuisine: Mandatory Many -Mandatory Many. <input type="checkbox"/> User - Reviews: Mandatory One - Optional Many. <input type="checkbox"/> User - Events: Optional Many - Mandatory Many |
| Vendor | Represents a strong entity that contains Vendor Information such as opening/closing hours, Contact and Vendor ID | <input type="checkbox"/> Primary Key– Vendor ID <input type="checkbox"/> Foreign Key – CuisineID,Organizer ID | <input type="checkbox"/> Vendor - Review: Mandatory One -Optional Many. |
| Dish | Represents a strong entity that contains Attributes such as Dish ID, Main Ingredients, Allergen and Description | <input type="checkbox"/> Primary Key – Dish ID <input type="checkbox"/> Foreign Key – Menu Id | <input type="checkbox"/> Dish - Menu: Mandatory Many - Mandatory One |
| Menu | Represents a strong entity that contains Pricing Information | <input type="checkbox"/> Primary Key – Menu ID | <input type="checkbox"/> Vendor - Menu: Mandatory One - Mandatory One |
| Cuisine | Represents a strong entity containing Cuisine Type | <input type="checkbox"/> Primary Key- Cuisine ID | <input type="checkbox"/> Vendor - Cuisine: Mandatory Many -Mandatory One. |
| Location | Represents a strong entity containing Location Details | <input type="checkbox"/> Primary Key – Location ID <input type="checkbox"/> Foreign Key – Vendor ID | <input type="checkbox"/> Location - Vendors: Mandatory Many – Mandatory One |
| Health Inspection | A Strong Entity that represents the health inspections conducted on vendors. | <input type="checkbox"/> Primary Key – Inspection ID <input type="checkbox"/> Foreign Key – Vendor ID | <input type="checkbox"/> Health Inspection - Vendor: Mandatory Many - Mandatory One |
| Review | A Strong Entity that represents reviews written by users about dishes. | <input type="checkbox"/> Primary Key – Review ID <input type="checkbox"/> Foreign – User ID, Vendor ID | <input type="checkbox"/> User - Reviews: Mandatory One - Optional Many. |

| | | | |
|---------------------------|---|--|--|
| Event | A Strong Entity that represents events organized by vendors. | <input type="checkbox"/> Primary Key – Event ID <input type="checkbox"/> Foreign Key – Organizer ID | <input type="checkbox"/> Event – Event Organizer: Optional Many - Mandatory One |
| Event Registration | Represents an Associative Entity between user and events | <input type="checkbox"/> Primary Key - Registration ID <input type="checkbox"/> Foreign Key – User ID, Event ID | <input type="checkbox"/> User – Events: Event Registration as Associative Entity |
| Prefers | Represents an Associative Entity between User and Cuisine | <input type="checkbox"/> Composite Primary Key – Cuisine ID , User ID | |
| Payment | Represents an entity with Payment details of Event Registration | <input type="checkbox"/> Primary Key – Payment ID <input type="checkbox"/> Foreign Key – Registration ID | <input type="checkbox"/> Payment – Event Registration: Mandatory Many to Mandatory One |

5. Changes Made from P2:

- ☐ Created an Associative entity for “User” and “Cuisine” entities.
- ☐ Corrected all the relationships and FK’s
- ☐ Converted “Event Registration” entity as associative entity
- ☐ Normalized the ERD to Third Normal Form by removing Many-to-Many relationships and adding Associative entities.

ERD



Team Members

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