Team 1: Theme Park Management, Database Schema

Entities/Attributes:

1. **RIDES**
    - ride_id
    - ride_name
    - ride_type
    - status
    - max_weight
    - min_height
    - capacity
    - daily_ride_count

2. **Membership**
    - Membership_id
    - Name
        - First_name
        - last_name
    - email
    - phone
    - date_of_birth
    - registration_date
    - membership_type

3. **VISITS**
    - visit_id
    - membership_id
    - visit_date
    - entry_time
    - exit_time
    - ticket_type
    - ticket_price
    - discount_amount
    - payment_method

4. **MAINTENANCE**
    - maintenance_id
    - ride_id
    - maintenance_date
    - maintenance_type
    - start_time
    - end_time
    - description
    - employee_id
    - cost
    - ride_status

5. **WEATHER_EVENTS**
    - weather_id
    - event_date
    - weather_type
    - start_time
    - end_time
    - park_closure

6. **EMPLOYEES**
    - Employee_id
    - Name
        - First_name
        - last_name
    - date_of_birth
    - address
    - Phone
    - email
    - hire_date
    - department
    - employee_type
    - hourly_rate
    - is_active
    - supervisor_id
    - locationID
    - termination_date

7. **EVENTS_PROMOTIONS**
    - event_id
    - event_name
    - event_type
    - start_date
    - end_date
    - discount_percent
    - description

8. **LOCATION** (stores information about distinct zones the park may have)
    - LocationID
    - Name
    - Description
    - RideID (Multi)
    - Manager
    - Manager_Start

9. **DAILY_STATS**
    - Date
    - Visitor_count
    - Ride_stats (multi & composite)
        i. Ride_id
        ii. Ride_count

10. **VENDORS**

- vendor_ID
- vendor_name
- locationID
- managerID
- Inventory (composite & multi)
    - Item_id
    - Item_name
    - Item_count

11. **Item**

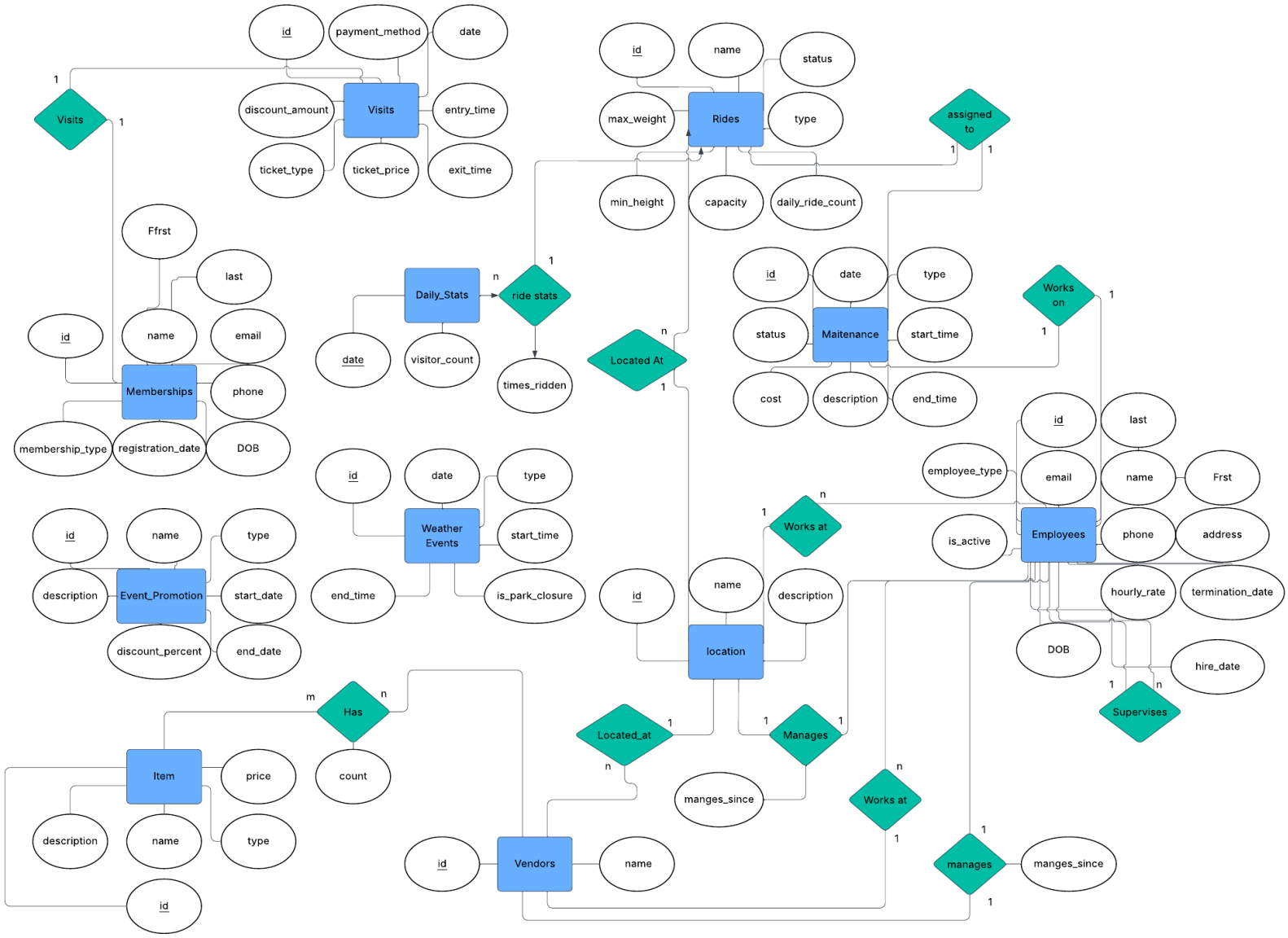
- Item_id
- Item_type
- Item_name

- Price
- Description

Relationships

- **LOCATION → RIDES (1:M)**
- **LOCATION → VENDOR (1:M)**
- **VENDOR → FOOD (N:M)**
- **VENDOR → SOUVENIR (N:M)**
- **MEMBER → VISITS** (1:M)
    - One customer can have many visits
- **EVENTS_PROMOTIONS → VISITS** (1:M)
    - One event can be associated with many visits
- **RIDES → MAINTENANCE** (1:M)
    - One ride can have many maintenance records
- **EMPLOYEES → EMPLOYEES** (N:1) - Self-referencing
    - One supervisor can manage many employees
- **EMPLOYEES ↔ RIDES** (N:M)
    - One employee can work on multiple rides
    - One ride can have multiple employees assigned
    - **Requires bridge table: EMPLOYEE_RIDE_ASSIGNMENTS**
- **VENDOR → EMPLOYEES** (N:M)
    - One employee can work at one vendor
    - A vendor can have multiple employees
- **DAILY_STATS → VISITS (1:M)**
- **DAILY_STATS → RIDES (1:M)**

ER Model: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