Ozzapalooza

Database Design Document

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CMPT 308

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**Executive Summary:**

**Overview:**

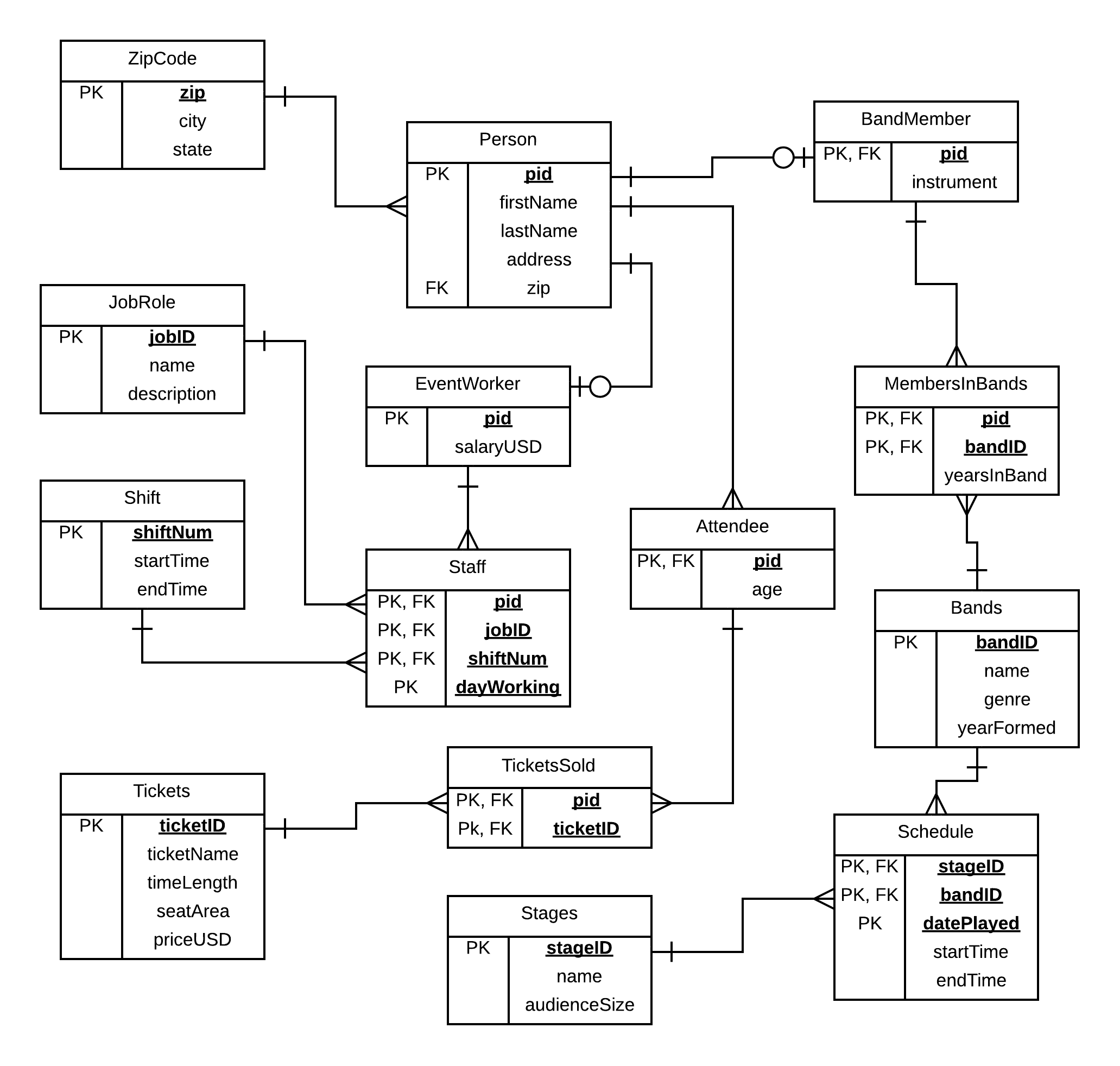
Ozzapalooza is one of the premiere music festivals in the United States. Located in and around the area of Phoenix, Arizona, this three-day long festival of music, energy, and fun brings in tens of thousands of individuals from all over the country. Many genres of music are heard, from classic rock to death metal, and many classic bands, like Rush and Slayer, perform each year to their fans.

**Objectives:**

Our consulting company has been hired by the organizers of the Ozzapalooza to create an appropriate database system for them to keep better track of the information regarding their employees, bands, and the attendees of the festival. Our goal was to create this system so that it would be very easy to modify the information necessary to the festival, such as the scheduling the bands and employees. As well as creating the necessary structure for the database, we have also provided the organizers of the festival with a variety of stored procedures and triggers to ensure the reliability of the system and the data within it, as well as queries to help in creating the necessary reports and statistics of the festival.

The outline of our proposed Database system is within this document. Each page contains a separate entity of the database system, which in total makes up the schema of the database system. As well as each entity and its functional dependencies being shown, the views, stored procedures, triggers, and security permissions for the database schema are also shown. This database system was designed in PostgreSQL 9.3.2, and it has been tested thoroughly to ensure accuracy and reliability.

**ER Diagram:**



**Tables**

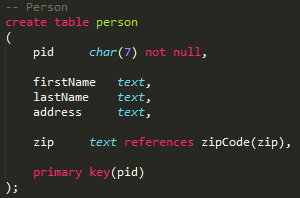
**Person Table**

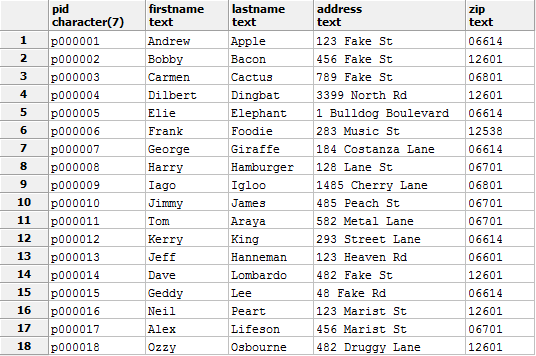
Purpose:

Table that keeps track of each person involved in the festival (attendees, event worker, and band members). Identifying information about the individual is stored in this table.

Functional Dependencies:

pid -> firstName, lastName, address, zip





**Tables**

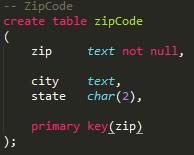
**ZipCode Table**

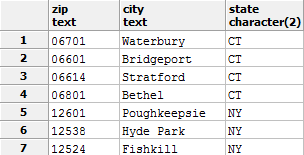
Purpose:

Table that keeps track of the zip codes of each person involved in the festival. Each zip code is associated with its corresponding city and state.

Functional Dependencies:

zip -> city, state





**Tables**

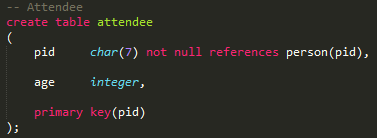
**Attendee Table**

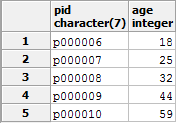
Purpose:

Table that keep track of each person (customer) attending the festival, along with their age. This table is an entity subtype of the table Person.

Functional Dependencies:

pid -> age





**Tables**

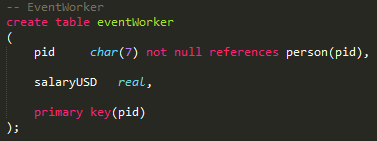
**EventWorker Table**

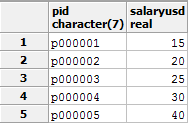
Purpose:

Table that keeps track of each employee that works at the festival, along with that employee’s salary in USD. This table is an entity subtype of the table Person

Functional Dependencies:

pid -> salaryUSD





**Tables**

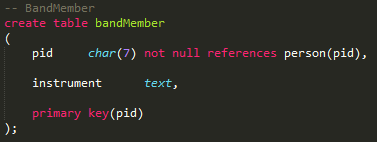
**BandMember Table**

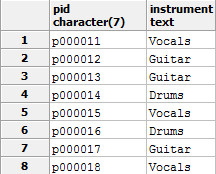
Purpose:

Table that stores the information about each band member, which includes which instrument they play. This table is an entity subtype of the Person table.

Functional Dependencies:

pid -> instrument





**Tables**

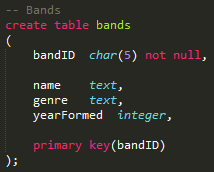
**Bands Table**

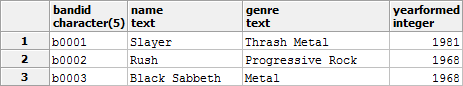
Purpose:

Table that stores the information of each band, including their name, genre, and other information about their history.

Functional Dependencies:

bandID -> name, genre, yearFormed





**Tables**

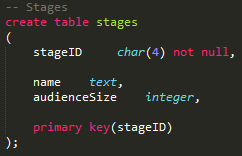
**Stages Table**

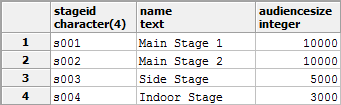
Purpose:

Table that stores the information about each stage that is at the festival, which includes the capacity of each audience.

Functional Dependencies:

stageID -> name, audienceSize





**Tables**

**JobRole Table**

Purpose:

Table that stores the information about each job that an event worker at the festival can perform, including a description of that job

Functional Dependencies:

jobID -> name, description

