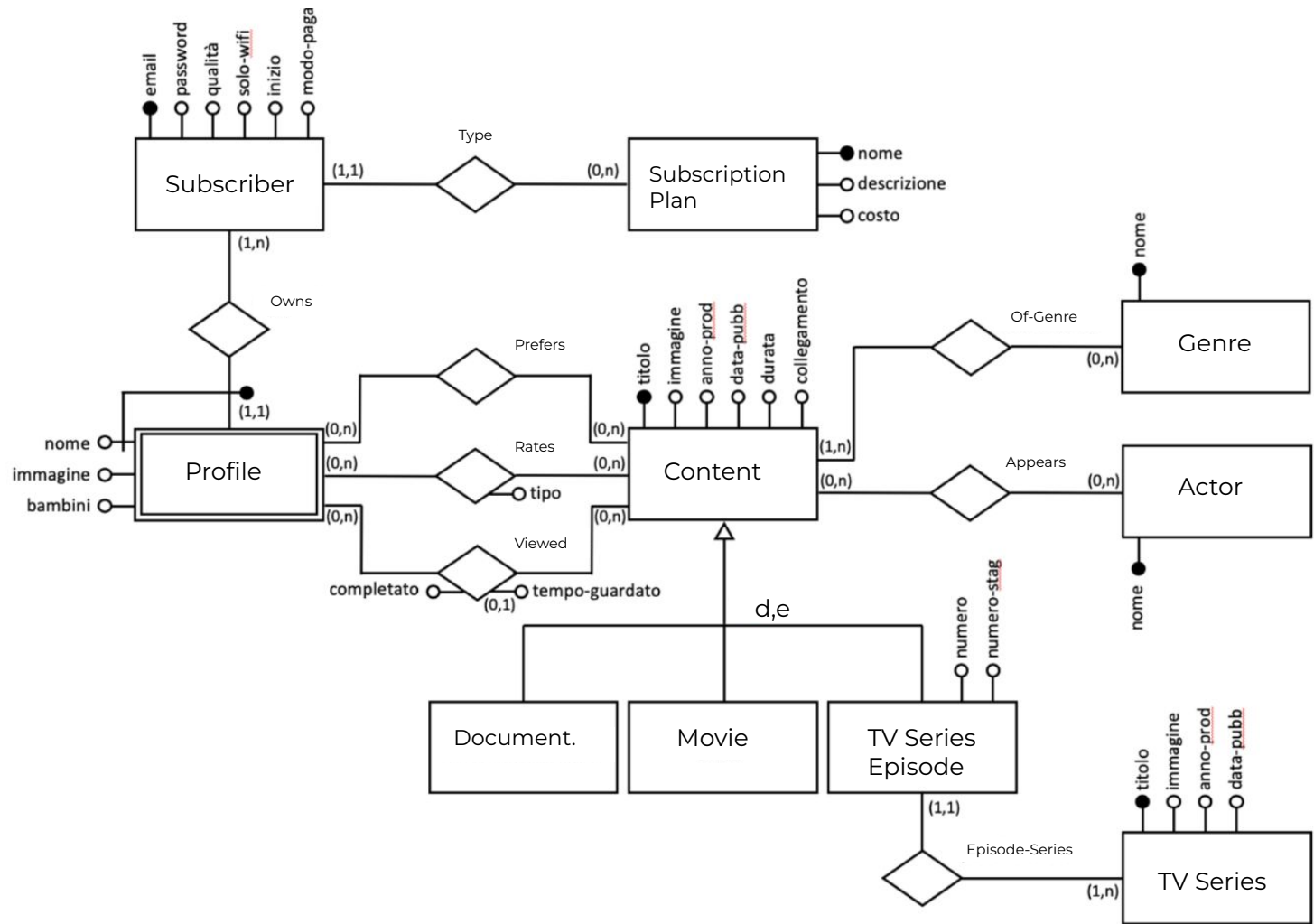


Exercise 1 - Streaming Service

We want to represent data from an on-demand streaming service that allows subscribers to watch a variety of TV series, movies, and documentaries. Subscribers register through an email and password; they can indicate the desired video quality and whether to use the service only when there is a wifi connection. The service offers several subscription plans (basic, standard, premium), each characterized by a description and a monthly fee. For each subscriber, the start date of the subscription and the chosen payment method (e.g., credit card, gift card, etc.) are known. Subscribers can create user profiles, characterized by a picture, a name, and an indication of whether it is a children's profile or not. TV series are organized into seasons (characterized by a number): each season consists of a set of episodes, which are also numbered. TV series, episodes, movies, and documentaries have a title, image, year of production, cast of actors, genre (multiple genres are possible for the same title), and date of release on the streaming service. Episodes, movies, and documentaries have a duration and a link to the video. The system keeps track of which movies have been viewed for each profile or whether the movie has only been partially viewed; in the latter case it keeps track of how many minutes/seconds have already been viewed. Subscribers can also rate movies, documentaries, and TV series with a simple click (thumbs up or down) and create their own list of preferences.



Subscription Plan (name, description, cost)

Subscriber (email, password, quality, wifi-only, start, paymode, *SubscriptionPlan*)

Profile (email, name, picture, children)

Prefers (email, name, title)

Rates (email, name, title, type)

Viewed (email, name, title, completed, time-watched*)

Content (title, image, year-prod, date-pub, duration, link)

Movie (title-movie)

Documentary (title-documentary)

Episode-Series (title-episode, title-series, number, number-season)

TV Series (title, image, year-prod, date-pub)

Actor (name)

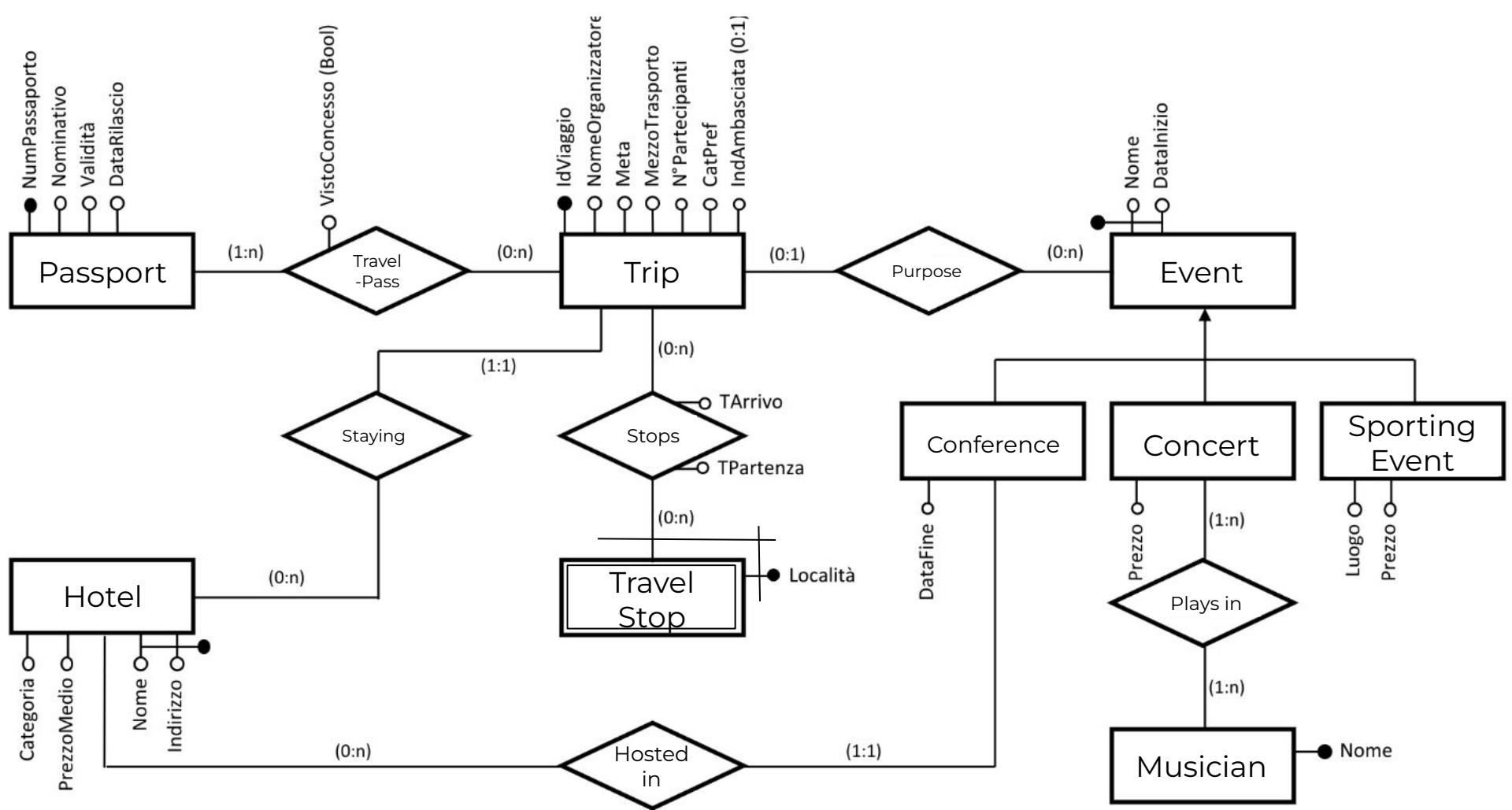
Genre (name)

Of-Genre (title, name-genre)

Appears (title, name-actor)

Exercise 2 - Travel Agency

A travel agency organizes both business and leisure trips for its clients. Each client identifies the destination of the trip, specifies the number of people who will participate with him in the trip, chooses the mode of transportation (train, plane, ship) and the category of hotel. Depending on the destination, the agency also deals with the issuance of entry visas, requesting visas from all travel participants at the relevant embassy, and collecting passports (whose names, serial numbers, date of issuance and validity are known) and then returning them to the client. Depending on the availability offered, the trip may be without stops or intermediate stopovers, or it may include some connecting stops: in this case, the arrival and departure times of each stop are known. The hotel at which the reservation will be made may be of the required category or of a higher category, and is characterized by a name, an address, and the average price of stay per night. Trips can be made for different purposes: in each case, the agency takes charge of making the appropriate reservations. In fact, the customer may attend a concert (of which the musicians, date, and admission price are known) or a sporting event (of which the venue, date, and admission price are known), may attend a conference (of which the name, host hotel, and start and end date are known), or may engage in free tourism.



Trip (Trip Id, OrganizerName, Destination, TransportationMethod, No. of Participants, PrefCat, AddAmbassy*, *Hotel, HotelAddress*)

Passport (NoPassport, Name, DateRelease, Validity)

Travel Passport (TravelId, NumPassport, VisaConcession?)

Travel Stop (TravelId, Location, ArrivalTime, DepartureTime)

Hotel (Name, Address, Category, AvgPrice)

Event (EventName, StartDate, EventType, Price*, Location*, EndDate*, Hotel*, HotelAddress*)

MusiciansInConcert(ConcertName, StartDate, MusicianName)