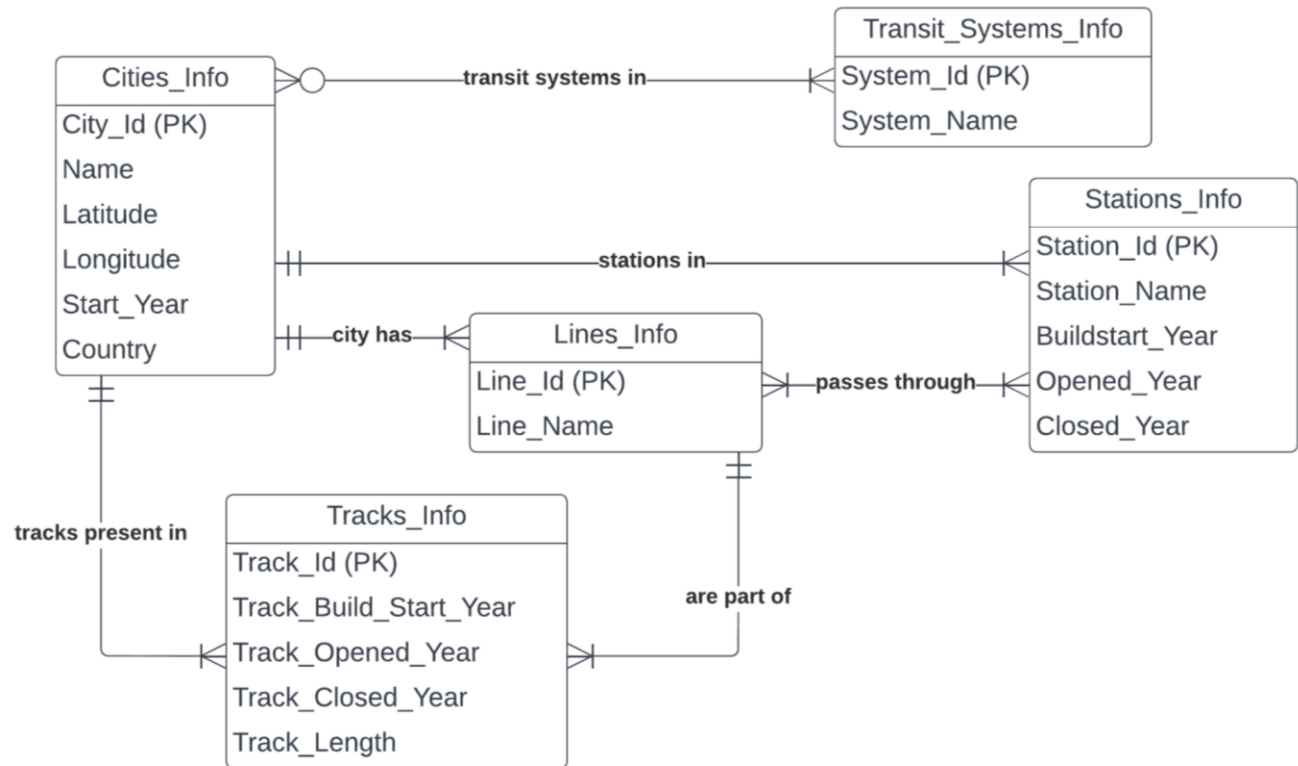# Transit Systems Of World Database

ER Diagram

Relational Schema

We have the following tables in the *Transit Systems of the World* database schema:

- `Cities_Info`
- `Lines_Info`
- `Tracks_Info`
- `Station_Lines_Info`
- `Stations_Info`
- `Track_Lines_Info`
- `Transit_Systems_Info`

Each of these tables can be seen with its attributes below. The primary key of each table is **bold**, and the foreign keys are described in additional lines.

Cities_Info(**City_ID** (unique identifier of city), Name (name of city), Latitude, Longitude (location of city), Start_Year (year the transit system was started), country)

Lines_Info(**Line_ID** (unique line identifier), Line_Name (name of the line), city_ID (ID of city which has the line), System_ID (ID of transit system which has the line))

//City_ID is a F.K. (foreign key) referencing Cities_Info(City_ID)
//System_ID is a F.K. referencing Transit_Systems_Info(System_ID)

Stations_Info(**Station_ID** (unique identifier), Station_Name (name of the station), BuildStart_Year, Opened_Year, Closed_Year, City_ID)

//City_ID is a F.K. referencing Cities_Info(City_ID)

Station_Lines_Info(**StationLine_ID** (unique identifier), Station_ID (ID of a station), Line_ID, City_ID, Date_Created (data of creation)

//City_ID is a F.K. referencing Cities_Info(City_ID)
//Line_ID is a F.K. referencing Lines_Info(Line_ID)
//Station_ID is a F.K. referencing Stations_Info(Station_ID)

Transit_Systems_Info(**System_ID**(unique identifier), System_Name (name of transit system), City_ID)

//City_ID is a F.K. referencing Cities_Info(City_ID)

Track_Lines_Info(**Trackline_ID**, Section_ID, Line_ID, City_ID, Date_Of_Creation (date the track was created))

//City_ID is a F.K. referencing Citie_Info(City_ID)
//Line_ID is a F.K. referencing Lines_Info(Line_ID)

Track_Info(**Track_ID**, Track_Build_Start_Year, Track_Opened_Year, Track_Closed_Year, Track_Length, City_ID)

City_ID is a F.K. referencing Cities_Info(City_ID)

Schema Diagram

Track_lines_Info

PK	Trackline_Id	UUID
	Section_Id	UUID
	Date_Of_Creation	Date
FK	Line_Id	UUID
FK	City_Id	UUID

Lines_Info

PK	Line_Id	UUID
	Line_name	varchar(50)
FK	City_Id	UUID
FK	System_Id	UUID

Cities_Info

PK	City_Id	UUID
	Name	varchar(50)
	Latitude	Decimal(9,6)
	Longitude	Decimal(9,6)
	Start_year	smallint
	Country	varchar(50)

Stations_Info

PK	Station_Id	UUID
	Station_name	varchar(50)
	BuildStart_year	smallint
	Opened_year	smallint
	Closed_year	smallint
FK	City_Id	UUID

Station_Lines_Info

PK	Station_Line_Id	UUID
	Date_Created	Date
FK	Station_Id	UUID
FK	Line_Id	UUID
FK	City_Id	UUID

Transit_Systems_Info

PK	System_Id	UUID
	System_name	varchar(50)
FK	City_Id	UUID

Tracks_Info

PK	Track_Id	UUID
	Track_Build_start_year	smallint
	Track_opened_year	smallint
	Track_Closed_year	smallint
	Track_length	smallint
FK	City_Id	UUID