Music Player Application

Milestone: Logical Model (Relational model)

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Logical Model(Relational Model)

Entities = Bold Text
Primary Key = Underlined Text
Foreign key = Red background Text

Company(Company ID , Company_Name, Website, Address)

Person(Email ID , Name, Phone_number, Age, Gender, Address)

Developer(Developer ID , Email_ID, Joined_date)
* Foreign key here is the Email ID referencing Person Entity also Not Null

Team(Team_ID, Developer ID)
*Foreign key Developer ID referencing Developer Entity.

User(ID ,Email ID)
*Foreign key Email ID referencing Developer Entity , EmailID also Not Null

Artist(Artist_ID ,Number_of_followers)

Playlist (ID, User ID , Name)
*Foreign key UserID referencing USER Entity also Not Null

Songs (ID , Title, Duration, Artist_ID)
*Foreign key Artist ID referencing Artist Entity also Not Null

Albums (Album_name, Artist_ID)
*Foreign key Artist ID referencing Artist Entity also Not Null

Music Player System (Product_ID , Name, Features)

User Follow Artist (User_ID , Artist_ID)
*Foreign key User ID referencing User Entity also Not Null *Foreign
key Artist ID referencing Artist Entity also Not Null

Songs In Playlist (Song_ID , Playlist_ID).
*Foreign key Song ID referencing Song Entity also Not Null
*Foreign key Playlist ID referencing Playlist Entity also Not Null

- CompanyID is the primary key for the Company entity. EmailID serves as a primary key and connecting point to the User and Developer entities within the Person entity. The Developer entity includes attributes such as the Joined date and links to Person via EmailID. Its primary key is DeveloperID. Using the primary key Developer ID, the Team entity communicates with developers.

- The primary key of the User ENTITY is USER ID, which uses EmailIID to establish a connection back to Person. The primary key ArtistID, which is essential for the Songs and Albums entities to link with artists, specifies the Artist entity. The Playlist entity relates back to users via UserID and uses the ID as its primary key.

- The Songs entity's primary key is ID and it links to artists via ArtistID. In the Albums entity, the connection between albums and artists is made using the primary key ArtistID. The Music Play System identifies each system with the primary key ProductID.

- Therefore , the User Follows Artist entity forms a bridge between users and artists, while the Songs In Playlist entity correlates songs to playlists, representing many-to-many relationships in both cases.