Amazon Sonic - Unified Music & Creator Economy Platform (Key Entities Identified)

1. **Users**
   (**PK:** user_id(int),
    Attributes: email(varchar), full_name(varchar), country_code(char2), role(varchar), status(varchar), created_at(datetime))

2. **Artists**
   (**PK:** artist_id(int);
   FK: user_id -> Users.user_id, label_id -> Labels.label_id;
   Attributes: stage_name(varchar), country_code(char2), is_verified(bool), join_date(date))

3. **Labels**
   (**PK**: label_id(int);
   Attributes: name(varchar), country_code(char2), contact_email(varchar), status(varchar), created_at(datetime))

4. **Albums**
   (**PK**: album_id(int);
   FK: primary_artist_id -> Artists.artist_id, label_id -> Labels.label_id;
   Attributes: title(varchar), upc(varchar), album_type(varchar), release_date(date), cover_url(varchar))

5. **Songs**
   (**PK**: song_id(int);
   FK: primary_artist_id -> Artists.artist_id, album_id -> Albums.album_id;
   Attributes: title(varchar), isrc(varchar), duration_sec(int), release_date(date), explicit(bool), audio_url(varchar), lyric_lang(varchar))

6. **Genres**
   (**PK**: genre_id(int);
   FK: parent_genre_id -> Genres.genre_id;
   Attributes: name(varchar))

7. **SongGenres**
   (**PK**: (song_id(int), genre_id(int));
   FK: song_id -> Songs.song_id, genre_id -> Genres.genre_id;
   Attributes: added_at(datetime))

8. **Moods**
   (**PK**: mood_id(int);
   Attributes: name(varchar))

9. **SongMoods**
   (**PK**: (song_id(int), mood_id(int));
   FK: song_id -> Songs.song_id, mood_id -> Moods.mood_id;
   Attributes: added_at(datetime))

10. **Playlists**
    (**PK**: playlist_id(int);
    FK: owner_user_id -> Users.user_id;
    Attributes: title(varchar), is_public(bool), description(varchar), cover_url(varchar),
    created_at(datetime), updated_at(datetime))

11. **PlaylistItems**
    (**PK**: (playlist_id(int), position(int));
    FK: playlist_id -> Playlists.playlist_id, song_id -> Songs.song_id, added_by ->
    Users.user_id;
    Attributes: added_at(datetime))

12. **Streams**
    (**PK**: stream_id(bigint);
    FK: user_id -> Users.user_id, song_id -> Songs.song_id;
    Attributes: device(varchar), start_time(datetime), end_time(datetime),
    completed(bool), source(varchar), bitrate_kbps(int), ip(inet), geo_country(char2))

13. **SongFeedback**
    (**PK**: feedback_id(int);
    FK: user_id -> Users.user_id, song_id -> Songs.song_id;
    Attributes: liked(bool), rating(int), marked_skip(bool), feedback_time(datetime))

14. **Plans**
    (**PK**: plan_id(int);
    Attributes: name(varchar), tier_rank(int), price_amount(numeric),
    price_currency(char3), billing_period(varchar), max_quality(varchar), ad_free(bool),
    is_active(bool), created_at(datetime))

15. **Subscriptions**
    (**PK**: sub_id(int);
    FK: user_id -> Users.user_id, plan_id -> Plans.plan_id;
    Attributes: start_date(date), end_date(date), auto_renew(bool), status(varchar),
    last_renewal_at(datetime))

16. PaymentMethods
(**PK**: pm_id(int);
FK: user_id -> Users.user_id;
Attributes: method_type(varchar), masked_details(varchar), is_default(bool),
verified(bool), added_at(datetime))

17. Invoices
(**PK**: invoice_id(int);
FK: user_id -> Users.user_id, sub_id -> Subscriptions.sub_id;
Attributes: amount(numeric), currency(char3), period_start(date), period_end(date),
issued_at(datetime), status(varchar))

18. Payments
(**PK**: payment_id(int);
FK: invoice_id -> Invoices.invoice_id, pm_id -> PaymentMethods.pm_id;
Attributes: paid_amount(numeric), currency(char3), paid_at(datetime),
provider_txn_ref(varchar), status(varchar))

19. RoyaltyPolicies
(**PK**: policy_id(int);
Attributes: name(varchar), basis(varchar), per_stream_amount(numeric),
share_pct(numeric), region_scope(varchar), effective_from(date), effective_to(date),
status(varchar))

20. RoyaltyEvents
(**PK**: roy_event_id(bigint);
FK: song_id -> Songs.song_id, artist_id -> Artists.artist_id, stream_id ->
Streams.stream_id, policy_id -> RoyaltyPolicies.policy_id;
Attributes: event_time(datetime), earning_amount(numeric), currency(char3),
source_note(varchar))