

Phantom Power - Data Models

Topic phantomPower

Tag code project planning

Links

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Data Types / Models List

Core Models

- **User**: Represents an account; owner of profiles, uploads, comments, follows, etc.
- **Profile**: Public-facing user identity with bio, links, featured audio, tags, and theme.

Media & Content

- AudioFile: Represents an uploaded music/audio file with metadata and ownership.
- Image: Stores references to uploaded image files, linked to other entities (e.g. Profile, Project).
- **Tag**: Genre, instrument, mood, or descriptor label that can be applied across entities.
- Playlist: Curated user-owned collections of AudioFiles.

- Comment: User comments on AudioFiles, Profiles, Projects, etc.
- Like: Tracks user "likes" for content such as AudioFiles, Comments, Playlists.

Audio Analysis & Discovery

- AudioFileReport: Container for all analysis related to a given AudioFile (both AI and user-contributed).
- **AlAudioFileAnalysisResult**: A single Al-generated analysis snapshot (e.g. tempo, key, genre).
- **UserAudioFileAnalysis**: A user's own subjective analysis (e.g. mood, genre, tags, notes).
- AudioFileMetricType: Defines a specific analysis metric category (e.g. "Dynamics Quotient", "MAD Divergence").
- AudioFileMetricValue: Stores the result of a metric analysis applied to a specific AudioFileReport.

Social & Interaction

- **UserFollow**: Follower/following relationships between users.
- Message: Private/direct messages between two users.
- **ChatRoom**: Group communication spaces or community channels.
- ChatMessage: Messages posted within a chatroom.
- Notification: Alerts for events like follows, likes, comments, etc.
- Project: Collaborative creative endeavors or gig postings.
- **Booking**: Scheduling agreements or confirmed collaborations tied to Projects.
- Match: Result of Al-based user matching from profile + audio analysis.

Support & System

- Role: Defines a named user role (admin, moderator, standard user, etc.).
- Permission: Defines specific actions or capabilities (e.g. "upload_audio", "ban user").
- UserRole: Links Users to one or more Roles.
- **RolePermission**: Defines which permissions are granted to each Role.
- Session: Tracks authenticated user sessions (JWT, device metadata, etc.).
- AuditLog: Logs significant user/system activity (admin changes, content edits).
- Report: User-submitted reports for abuse, bugs, or content violations.

Junction / Relationship Tables

- PlaylistAudioFile: Links AudioFiles to Playlists (many-to-many).
- AudioFileTag: Links Tags to AudioFiles (many-to-many).
- UserProject: Links Users to Projects with roles or statuses (e.g. owner, contributor).
- AudioFileMetricTypeStatusLog: History log of status changes for metric types (development, suspended, etc.).

JSON Schemas & Examples

Core Models

User

Schema

```
JSON ~
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"User",
    "type":"object",
    "required":["id","email","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "email":{"type":"string","format":"email"},
        "passwordHash":{"type":"string"},
        "role":{"type":"string","enum":["user","admin"],"default":"user"},
        "isVerified":{"type":"boolean","default":false},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}
}
```

```
Plain Text >

{
    "id":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "email":"Jane.Doe@Example.com",
    "passwordHash":"$2a$10$abcdefg1234567890hashed",
    "role":"user",
    "isVerified":true,
```

```
"createdAt":"2025-07-19T12:00:00Z",
"updatedAt":"2025-07-19T12:00:00Z"
}
```

Profile

Schema

```
JSON ~
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "Profile",
  "type": "object",
  "required":["id","userId","displayName","createdAt"],
  "properties":{
    "id":{"type":"string","format":"tsid"},
    "userId": {"type": "string", "format": "tsid"},
    "displayName":{"type":"string"},
    "bio":{"type":"string"},
    "location":{"type":"string"},
    "bannerUrl":{"type":"string","format":"uri"},
    "theme": { "type": "string" },
      "type": "object",
      "properties":{
        "soundcloud": { "type": "string", "format": "uri" },
        "instagram":{"type":"string","format":"uri"},
        "twitter": {"type": "string", "format": "uri"}
    ζ,
     'featuredAudioId":{"type":"string","format":"tsid"},
    "tags":{"type":"array","items":{"type":"string","format":"tsid"}},
    "updatedAt": {"type":["string","null"],"format":"date-time"}
```

```
JSON \
{
    "id":"01HYN8ZMEW2DTPP7YYPXFPZ27R",
```

```
"userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
"displayName":"Jane D",
"bio":"Producer. Vocalist. Gearhead. Let's build something weird.",
"location":"Brooklyn, NY",
"avatarUrl":"https://.../avatars/janedoe.jpg",
"bannerUrl":"https://.../banners/janedoe-banner.jpg",
"theme":"retro-dark",
"socialLinks":{
    "soundcloud":"https://soundcloud.com/janedoe",
    "instagram":"https://instagram.com/janedoe"
},
"featuredAudioId":"01HYN91QZAYVNNRH53SJ1KMBCY",
"tags":["01HYN9TAG1ABCDEF1234567890"],
"createdAt":"2025-07-19T12:10:00Z",
"updatedAt": {"type":["string","null"],"format":"date-time"}
}
```

AudioFile

Schema

```
JSON ~
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "AudioFile",
  "type": "object",
  "required": ["id", "userId", "title", "fileUrl", "createdAt"],
    "id": { "type": "string", "format": "tsid" },
    "userId": { "type": "string", "format": "tsid" },
    "title": { "type": "string" },
    "description": { "type": "string" },
    "fileUrl": { "type": "string", "format": "uri" },
    "duration": { "type": "number" },
    "waveformDataUrl": { "type": "string", "format": "uri" },
    "visibility": { "type": "string", "enum": ["public", "private",
"unlisted", "draft"], "default": "public" },
    "createdAt": { "type": "string", "format": "date-time" },
    "updatedAt": {"type":["string","null"],"format":"date-time"}
```

```
JSON ~
{
    "id": "01HYN91QZAYVNNRH53SJ1KMBCY",
    "userId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "title": "Cosmic Jam #3",
    "description": "Weird ambient mod synth groove",
    "fileUrl": "https://phantom-
power.app/cdn/audio/01HYN91QZAYVNNRH53SJ1KMBCY.mp3",
    "duration": 212.4,
    "waveformDataUrl": "https://phantom-
power.app/cdn/audio/01HYN91QZAYVNNRH53SJ1KMBCY.json",
    "visibility": "public",
    "createdAt": "2025-07-19T13:00:00Z",
    "updatedAt": "2025-07-19T13:00:00Z"
}
```

Tag

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Tag",
    "type":"object",
    "required":["id","name","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "name":{"type":"string"},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}
}
```

```
JSON \
{
    "id":"01HYN9TAG1ABCDEF1234567890",
    "name":"ambient",
    "createdAt":"2025-07-19T11:00:00Z",
    "updatedAt":"2025-07-19T11:00:00Z"
```

AudioFileTag (Junction Table)

Schema

```
JSON >
{
    "$schema": "http://json-schema.org/draft-07/schema#",
    "title": "AudioFileTag",
    "type": "object",
    "required": ["audioFileId", "tagId", "createdAt"],
    "properties": {
        "audioFileId": { "type": "string", "format": "tsid" },
        "tagId": { "type": "string", "format": "tsid" },
        "createdAt": { "type": "string", "format": "date-time" }
},
    "additionalProperties": false
}
```

Sample

```
JSON >
{
    "audioFileId": "01HYN91QZAYVNNRH53SJ1KMBCY",
    "tagId": "01HYN9TAG1ABCDEF1234567890",
    "createdAt": "2025-07-19T13:05:00Z"
}
```

UserProject (Junction Table)

```
JSON \

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"UserProject",
    "type":"object",
    "required":["userId","projectId","role","createdAt"],
    "properties":{
```

```
"userId":{"type":"string","format":"tsid"},
    "projectId":{"type":"string","format":"tsid"},
    "role":{"type":"string"},
    "createdAt":{"type":"string","format":"date-time"}
},
    "additionalProperties":false
}
```

```
JSON ~
{
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "projectId":"01HYNPRJ01ABCDE1234567890",
    "role":"producer",
    "createdAt":"2025-07-19T16:15:00Z"
}
```

UserFollow

Schema

```
JSON >
{
    "$schema": "http://json-schema.org/draft-07/schema#",
    "title": "UserFollow",
    "type": "object",
    "required": ["followerId", "followeeId", "createdAt"],
    "properties": {
        "followerId": { "type": "string", "format": "tsid" },
        "createdAt": { "type": "string", "format": "date-time" }
},
    "additionalProperties": false
}
```

```
JSON ~
{
    "followerId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
```

```
"followeeId": "01HYN8XYZ9QRS1234567890",
   "createdAt": "2025-07-19T14:15:00Z"
}
```

Audio File Analysis

AudioFileReport

Represents a complete "analysis snapshot" of an audio file, referencing both Algenerated insights and user-generated analysis.

Schema

```
JSON ~
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"AudioFileReport",
    "type":"object",
    "required":["id","audioFileId","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "audioFileId":{"type":"string","format":"tsid"},
        "aiAnalysisIds":{"type":"array","items":
{"type":"string","format":"tsid"}},
        "userAnalysisIds":{"type":"array","items":
{"type":"string","format":"tsid"}},
        "metricValueIds":{"type":"array","items":
{"type":"string","format":"tsid"}},
        "notes":{"type":"string"},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}}
}
```

```
JSON ~
{
    "id":"01HYRPT01ABCDE1234567890",
    "audioFileId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "aiAnalysisIds":["01HRSTAIRES1ABC1234567890"],
    "userAnalysisIds":["01HRSTUSRAN1ABC1234567890"],
```

```
"metricValueIds":["01HRSTMVAL1ABC1234567890"],
"notes":"Initial analysis pack",
"createdAt":"2025-07-19T18:00:00Z",
"updatedAt":"2025-07-19T18:00:00Z"
}
```

AIAudioFileAnalysisResult

Schema

```
JSON ~
  "$schema": "http://json-schema.org/draft-07/schema#",
  "title": "AIAudioFileAnalysisResult",
  "type": "object",
  "required":["id","audioFileId","analyzedAt","modelVersion"],
  "properties":{
    "id":{"type":"string","format":"tsid"},
    "audioFileId":{"type":"string","format":"tsid"},
    "tempo": { "type": "number" },
    "key":{"type":"string"},
    "genre":{"type":"string"},
    "confidence":{"type":"number","minimum":0,"maximum":1},
    "metadata":{"type":"object"},
    "modelVersion":{"type":"string"},
    "analyzedAt":{"type":"string","format":"date-time"}
  ζ,
```

```
JSON \
{
    "id":"01HRSTAIRES1ABC1234567890",
    "audioFileId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "tempo":120.5,
    "key":"C#m",
    "genre":"ambient",
    "confidence":0.95,
    "metadata":{"timbre":0.72,"rhythmComplexity":0.45},
    "modelVersion":"librosa-0.9.2-v1",
```

```
"analyzedAt":"2025-07-19T17:50:00Z"
}
```

UserAudioFileAnalysis

Collects data entered by the owner and other user's about music in associated with each AudioFile, referenced in its AudioFileReport

Schema

```
JSON Y
  "$schema":"http://json-schema.org/draft-07/schema#",
  "title": "UserAudioFileAnalysis",
  "type": "object",
  "required":["id","userId","audioFileId","createdAt"],
  "properties":{
    "id":{"type":"string","format":"tsid"},
    "userId": {"type": "string", "format": "tsid"},
    "audioFileId":{"type":"string","format":"tsid"},
    "description":{"type":"string"},
    "mood":{"type":"string"},
    "genre":{"type":"string"},
    "instruments":{"type":"array","items":{"type":"string"}},
    "tags":{"type":"array","items":{"type":"string","format":"tsid"}},
    "createdAt":{"type":"string","format":"date-time"},
    "updatedAt": {"type":["string","null"],"format":"date-time"}
```

```
JSON ~

{
    "id":"01HRSTUSRAN1ABC1234567890",
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "audioFileId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "description":"Warped field recording with ambient drones.",
    "mood":"eerie",
    "genre":"experimental",
    "instruments":["field rec","synth","delay"],
    "tags":["01HYN9TAG1EXPERIMENTAL"],
```

```
"createdAt":"2025-07-19T17:55:00Z",
"updatedAt":"2025-07-19T17:55:00Z"
}
```

AudioFileMetricType

Defines each metric category used in advanced analysis.

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"AudioFileMetricType",
    "type":"object",
    "required":["id","name","status","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "name":{"type":"string"},
        "description":{"type":"string"},
        "importance":{"type":"number","minimum":0,"maximum":1},
        "status":{"type":"string","enum":
["active","suspended","defunct","development"]},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}}
}
```

```
JSON \

"id":"01HRSTMTRT01ABC1234567890",
   "name":"Dynamics Quotient",
   "description":"Measures variation in loudness over time.",
   "importance":0.8,
   "status":"active",
   "createdAt":"2025-07-19T18:10:00Z",
   "updatedAt":"2025-07-19T18:10:00Z"
}
```

AudioFileMetricValue

Stores actual metric values linked to a specific AudioFileReport.

Schema

```
JSON ~

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"AudioFileMetricValue",
    "required":["id", "reportId", "metricTypeId", "createdAt"],
    "properties":{
        "id":{"type":"string", "format":"tsid"},
        "reportId":{"type":"string", "format":"tsid"},
        "watricTypeId":{"type":"string", "format":"tsid"},
        "value":{"type":["number", "string", "object"]},
        "additionalInfo":{"type":"object"},
        "createdAt":{"type":"string", "format":"date-time"}
}
```

Sample

```
JSON \
{
    "id":"01HRSTMVAL1ABC1234567890",
    "reportId":"01HYRPT01ABCDE1234567890",
    "metricTypeId":"01HRSTMTRT01ABC1234567890",
    "value":0.67,
    "additionalInfo":{"distributionMean":0.5,"stdDev":0.15},
    "createdAt":"2025-07-19T18:15:00Z"
}
```

AudioFileMetricTypeStatusLog

```
JSON \

{
    "$schema": "http://json-schema.org/draft-07/schema#",
    "title": "AudioFileMetricTypeStatusLog",
```

```
"type": "object",
    "required": ["id", "metricTypeId", "status", "changedByUserId",
"changedAt"],
    "properties": {
        "id": { "type": "string", "format": "tsid" },
        "metricTypeId": { "type": "string", "format": "tsid" },
        "status": { "type": "string", "enum": ["active", "suspended",
"defunct", "development"] },
        "changedByUserId": { "type": "string", "format": "tsid" },
        "notes": { "type": "string" },
        "changedAt": { "type": "string", "format": "date-time" }
}
}
```

```
JSON >
{
    "id": "01HRSTMTLOG1ABC1234567890",
    "metricTypeId": "01HRSTMTRT01ABC1234567890",
    "status": "suspended",
    "changedByUserId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "notes": "Temporarily disabled while we recalibrate model outputs",
    "changedAt": "2025-07-20T10:15:00Z"
}
```

Media & Content

Playlist

```
JSON ~

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Playlist",
    "type":"object",
    "required":["id","ownerId","name","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "ownerId":{"type":"string","format":"tsid"},
        "name":{"type":"string"},
```

```
"description":{"type":"string"},
    "isPublic":{"type":"boolean","default":true},
    "createdAt":{"type":"string","format":"date-time"},
    "updatedAt": {"type":["string","null"],"format":"date-time"}
},
    "additionalProperties":false
}
```

```
JSON \
{
    "id":"01HYNPPL01ABCDE1234567890",
    "ownerId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "name":"Chill Vibes",
    "description":"Late night ambient tracks",
    "isPublic":true,
    "createdAt":"2025-07-19T16:05:00Z",
    "updatedAt":"2025-07-19T16:05:00Z"
}
```

PlaylistAudioFile

```
JSON ~

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"PlaylistAudioFile",
    "type":"object",
    "required":["playlistId","audioFileId","createdAt"],
    "properties":{
        "playlistId":{"type":"string","format":"tsid"},
        "audioFileId":{"type":"string","format":"tsid"},
        "order":{"type":"integer"},
        "createdAt":{"type":"string","format":"date-time"}
},
    "additionalProperties":false
}
```

```
JSON \

{
    "playlistId":"01HYNPPL01ABCDE1234567890",
    "audioFileId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "order":1,
    "createdAt":"2025-07-19T16:10:00Z"
}
```

Image

Schema

```
JSON >
{
    "$schema": "http://json-schema.org/draft-07/schema#",
    "title": "Image",
    "type": "object",
    "required": ["id", "uploaderId", "url", "usageType", "createdAt"],
    "properties": {
        "id": { "type": "string", "format": "tsid" },
        "uploaderId": { "type": "string", "format": "tsid" },
        "url": { "type": "string", "format": "uri" },
        "usageType": { "type": "string", "enum": ["avatar", "banner",
        "project", "audio", "other"] },
        "linkedEntityId": { "type": ["string", "null"], "default": null },
        "linkedEntityType": { "type": ["string", "null"], "enum": ["Profile",
        "Project", "AudioFile", null], "default": null },
        "createdAt": { "type": "string", "format": "date-time" }
    }
}
```

```
JSON \

{
    "id": "01HYIMG001ABCDE1234567890",
    "uploaderId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "url": "https://phantom-power.app/cdn/avatars/janedoe.jpg",
    "usageType": "avatar",
```

```
"linkedEntityId": "01HYN8ZMEW2DTPP7YYPXFPZ27R",
    "createdAt": "2025-07-19T17:00:00Z"
}
```

Social & Interaction

Comment

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Comment",
    "type":"object",
    "required":
["id", "authorId", "targetType", "targetId", "content", "createdAt"],
    "properties":{
        "id":{"type":"string", "format":"tsid"},
        "authorId":{"type":"string", "format":"tsid"},
        "targetType":{"type":"string", "enum":
["AudioFile", "Profile", "Playlist", "Project"]},
        "targetId":{"type":"string", "format":"tsid"},
        "content":{"type":"string", "format":"date-time"},
        "updatedAt":{"type":["string", "null"], "format":"date-time"}}
}
```

```
JSON \

{
    "id":"01HYNCMMT1XYZ1234567890",
    "authorId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "targetType":"AudioFile",
    "targetId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "content":"This is fire—great spacey vibe!",
    "createdAt":"2025-07-19T14:05:00Z",
    "updatedAt":"2025-07-19T14:05:00Z"
```

Like

Schema

```
JSON \
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Like",
    "type":"object",
    "required":["userId","targetType","targetId","createdAt"],
    "properties":{
        "userId":{"type":"string","format":"tsid"},
        "targetType":{"type":"string","enum":
["AudioFile","Comment","Playlist","Project"]},
        "targetId":{"type":"string","format":"tsid"},
        "createdAt":{"type":"string","format":"date-time"}
}
```

Sample

```
JSON \

{
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "targetType":"AudioFile",
    "targetId":"01HYN91QZAYVNNRH53SJ1KMBCY",
    "createdAt":"2025-07-19T14:06:00Z"
}
```

Message

```
JSON ~
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Message",
    "type":"object",
```

```
"required":["id","senderId","receiverId","content","sentAt"],
"properties":{
    "id":{"type":"string","format":"tsid"},
    "senderId":{"type":"string","format":"tsid"},
    "receiverId":{"type":"string","format":"tsid"},
    "content":{"type":"string"},
    "sentAt":{"type":"string","format":"date-time"},
    "readAt":{"type":["string","null"],"format":"date-time"},
    "updatedAt":{"type":["string","null"], format:"date-time"}
}
```

```
JSON >
{
    "id":"01HYNMSG1ABCDE1234567890",
    "senderId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "receiverId":"01HYN8XYZ9QRS1234567890",
    "content":"Yo, heard your ambient track - love it!",
    "sentAt":"2025-07-19T14:10:00Z",
    "readAt":null,
    "upadtedAt":null
}
```

ChatRoom

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"ChatRoom",
    "type":"object",
    "required":["id","name","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "name":{"type":"string"},
        "memberIds":{"type":"array","items":
{"type":"string","format":"tsid"}},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}}
}
```

```
JSON ~
{
    "id":"01HYNCHAT1ZZZ1234567890",
    "name":"Ambient Producers Collective",
    "memberIds":["01HYN8FXZ2W6X8K6YTNPEKXYM7","01HYN8XYZ9QRS1234567890"],
    "createdAt":"2025-07-19T14:20:00Z",
    "updatedAt":"2025-07-19T14:20:00Z"
}
```

ChatMessage

Schema

```
JSON ~
  "$schema": "http://json-schema.org/draft-07/schema#",
 "title": "ChatMessage",
 "type": "object",
 "required": ["id", "chatRoomId", "senderId", "type", "content",
"sentAt"],
    "id": { "type": "string", "format": "tsid" },
    "chatRoomId": { "type": "string", "format": "tsid" },
    "senderId": { "type": "string", "format": "tsid" },
    "type": { "type": "string", "enum": ["text", "system", "image",
"file", "audio"] },
    "content": { "type": "string" },
    "replyToId": { "type": ["string", "null"], "format": "tsid" },
    "seenBy": { "type": "array", "items": { "type": "string", "format":
"tsid" } },
    "sentAt": { "type": "string", "format": "date-time" },
    "updatedAt": { "type": ["string", "null"], format: "date-time"}
```

```
JSON \
{
    "id": "01HYCHATMSGABCDE1234567890",
    "chatRoomId": "01HYNCHAT1ZZZ1234567890",
    "senderId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "type": "text",
    "content": "Yo welcome to the room!",
    "replyToId": null,
    "seenBy": ["01HYN8XYZ9QRS1234567890"],
    "sentAt": "2025-07-19T17:35:00Z",
    "updatedAt":null
}
```

Notification

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Notification",
    "type":"object",
    "required":["id","userId","type","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "userId":{"type":"string","format":"tsid"},
        "type":{"type":"string","enum":
["NewLike","NewComment","NewFollow","NewMessage","NewMatch"]},
        "payload":{"type":"object"},
        "isRead":{"type":"boolean","default":false},
        "createdAt":{"type":"string","format":"date-time"},
        "readAt":{"type":["string","null"],"format":"date-time"}}
}
```

```
JSON \
{
    "id":"01HYNN0TF1ABCDE1234567890",
    "userId":"01HYN8XYZ9QRS1234567890",
```

```
"type":"NewLike",
    "payload":
{"targetType":"AudioFile","targetId":"01HYN91QZAYVNNRH53SJ1KMBCY"},
    "isRead":false,
    "createdAt":"2025-07-19T14:25:00Z",
    "readAt":null
}
```

Match

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Match",
    "type":"object",
    "required":["id","userA","userB","score","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "userA":{"type":"string","format":"tsid"},
        "userB":{"type":"string","format":"tsid"},
        "score":{"type":"number","minimum":0,"maximum":1},
        "matchedAt":{"type":"string","format":"date-time"},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"], format:"date-time"}}
}
```

```
JSON \
{
    "id":"01HYNMTCH1ABCDE1234567890",
    "userA":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "userB":"01HYN8XYZ9QRS1234567890",
    "score":0.82,
    "matchedAt":"2025-07-19T14:30:00Z",
    "createdAt":"2025-07-19T14:30:00Z",
    "updatedAt":null
}
```

Booking

Used to record collaboration commitments or session reservations between users.

Schema

```
JSON >
{
    "$schema": "http://json-schema.org/draft-07/schema#",
    "title": "Booking",
    "type": "object",
    "required": ["id", "projectId", "userId", "status", "createdAt"],
    "properties": {
        "id": { "type": "string", "format": "tsid" },
        "projectId": { "type": "string", "format": "tsid" },
        "userId": { "type": "string", "format": "tsid" },
        "role": { "type": "string", "enum": ["requested", "confirmed",
        "cancelled", "completed"] },
        "startTime": { "type": "string", "format": "date-time" },
        "endTime": { "type": "string", "format": "date-time" },
        "createdAt": { "type": "string", "format": "date-time" },
        "updatedAt": { "type": "string", "null"], "format": "date-time" },
    }
}
```

```
JSON \

"id": "01HYB00K01ABCDE1234567890",
    "projectId": "01HYNPRJ01ABCDE1234567890",
    "userId": "01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "role": "drummer",
    "status": "confirmed",
    "startTime": "2025-07-21T18:00:00Z",
    "endTime": "2025-07-21T20:00:00Z",
    "createdAt": "2025-07-19T17:20:00Z",
    "updatedAt": "2025-07-19T17:20:00Z"
}
```

Support & System

Role

Schema

```
JSON ~

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Role",
    "type":"object",
    "required":["id","name","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "name":{"type":"string"},
        "description":{"type":"string"},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":"string","format":"date-time"},
        "additionalProperties":false
}
```

Sample

```
JSON >
{
    "id":"01HYNRL01ABCDE1234567890",
    "name":"moderator",
    "description":"Can moderate comments and manage flagged content",
    "createdAt":"2025-07-19T15:00:00Z",
    "updatedAt":"2025-07-19T15:00:00Z"
}
```

Permission

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Permission",
    "type":"object",
```

```
"required":["id","action","resource","createdAt"],
"properties":{
    "id":{"type":"string","format":"tsid"},
    "action":{"type":"string"},
    "resource":{"type":"string"},
    "description":{"type":"string"},
    "createdAt":{"type":"string","format":"date-time"},
"updatedAt": {"type":["string","null"],"format":"date-time"}},
    "additionalProperties":false
}
```

```
JSON \

"id":"01HYNPER01ABCDE1234567890",
  "action":"delete",
  "resource":"Comment",
  "description":"Allows deleting any comment",
  "createdAt":"2025-07-19T15:05:00Z",
  "updatedAt":"2025-07-19T15:05:00Z"
}
```

RolePermission

```
JSON \
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"RolePermission",
    "type":"object",
    "required":["roleId","permissionId","createdAt"],
    "properties":{
        "roleId":{"type":"string","format":"tsid"},
        "permissionId":{"type":"string","format":"tsid"},
        "createdAt":{"type":"string","format":"date-time"}
},
    "additionalProperties":false
}
```

```
JSON \
{
    "roleId":"01HYNRL01ABCDE1234567890",
    "permissionId":"01HYNPER01ABCDE1234567890",
    "createdAt":"2025-07-19T15:10:00Z"
}
```

UserRole

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"UserRole",
    "type":"object",
    "required":["userId","roleId","createdAt"],
    "properties":{
        "userId":{"type":"string","format":"tsid"},
        "roleId":{"type":"string","format":"tsid"},
        "createdAt":{"type":"string","format":"date-time"}
},
    "additionalProperties":false
}
```

Sample

```
JSON \

{
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "roleId":"01HYNRL01ABCDE1234567890",
    "createdAt":"2025-07-19T15:15:00Z"
}
```

Report

```
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Report",
    "type":"object",
    "required":
["id","reporterId","targetType","targetId","reason","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "reporterId":{"type":"string","format":"tsid"},
        "targetType":{"type":"string","enum":
["AudioFile","Comment","Profile","Project"]},
        "targetId":{"type":"string","format":"tsid"},
        "reason":{"type":"string","format":"tsid"},
        "status":{"type":"string","format":"date-time"},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":"string","null"],"format":"date-time"},
        "additionalProperties":false
}
```

```
JSON \

"id":"01HYNREP01ABCDE1234567890",

"reporterId":"01HYN8XYZ9QRS1234567890",

"targetType":"Comment",

"targetId":"01HYNCMMT1XYZ1234567890",

"reason":"Contains offensive language",

"status":"open",

"createdAt":"2025-07-19T15:20:00Z",

"updatedAt":"2025-07-19T15:20:00Z"
}
```

Session

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Session",
    "type":"object",
    "required":["id","userId","createdAt","lastActiveAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "userId":{"type":"string","format":"tsid"},
        "ipAddress":{"type":"string","format":"ipv4"},
        "userAgent":{"type":"string"},
        "createdAt":{"type":"string","format":"date-time"},
        "lastActiveAt":{"type":"string","format":"date-time"}},
        "additionalProperties":false
}
```

```
JSON >
{
    "id":"01HYNSESS01ABCDE1234567890",
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "ipAddress":"203.0.113.42",
    "userAgent":"Mozilla/5.0",
    "createdAt":"2025-07-19T15:25:00Z",
    "lastActiveAt":"2025-07-19T15:55:00Z"
}
```

AuditLog

```
JSON ~

{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"AuditLog",
    "type":"object",
    "required":["id","action","performedBy","performedAt","details"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "action":{"type":"string"},
        "action":{"type":"string"},
        "action":"type":"string",
```

```
"performedBy":{"type":"string","format":"tsid"},
    "performedAt":{"type":"string","format":"date-time"},
    "details":{"type":"object"}
},
    "additionalProperties":false
}
```

```
JSON \
{
    "id":"01HYNAL0G01ABCDE1234567890",
    "action":"UserLogin",
    "performedBy":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "performedAt":"2025-07-19T15:59:00Z",
    "details":{"ipAddress":"203.0.113.42","userAgent":"Mozilla/5.0"}
}
```

Relationship / Junction Tables

UserFollow

(already defined earlier) TODO

UserProject

```
JSON \
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"UserProject",
    "type":"object",
    "required":["userId","projectId","role","createdAt"],
    "properties":{
        "userId":{"type":"string","format":"tsid"},
        "projectId":{"type":"string","format":"tsid"},
        "role":{"type":"string"},
        "createdAt":{"type":"string","format":"date-time"}
},
    "additionalProperties":false
```

```
JSON \
{
    "userId":"01HYN8FXZ2W6X8K6YTNPEKXYM7",
    "projectId":"01HYNPRJ01ABCDE1234567890",
    "role":"producer",
    "createdAt":"2025-07-19T16:15:00Z"
}
```

Project

Schema

```
JSON >
{
    "$schema":"http://json-schema.org/draft-07/schema#",
    "title":"Project",
    "type":"object",
    "required":["id","ownerId","title","createdAt"],
    "properties":{
        "id":{"type":"string","format":"tsid"},
        "ownerId":{"type":"string","format":"tsid"},
        "title":{"type":"string"},
        "description":{"type":"string"},
        "isOpen":{"type":"boolean","default":true},
        "createdAt":{"type":"string","format":"date-time"},
        "updatedAt":{"type":["string","null"],"format":"date-time"}},
        "additionalProperties":false
}
```

```
JSON ~

{
    "id":"01HYNPRJ01ABCDE1234567890",
    "ownerId":"01HYN8XYZ9QRS1234567890",
    "title":"Ambient Album Collab",
```

```
"description":"Looking for modular synth & field recording artists",
"isOpen":true,
"createdAt":"2025-07-19T16:20:00Z",
"updatedAt":"2025-07-19T16:20:00Z"
}
```

Swagger/OpenAPI