

# Backlog Podcast Website & Database

An internal database for the Friedrich's brothers tracking



**Oregon State University**

CS340 Winter 2021 Group 13

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Project URL: <https://thebacklog340.herokuapp.com/home>  
(Must connect to OSU VPN)

Citation: [GitHub - mckerracher/340](https://github.com/mckerracher/340) Website

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## *Executive Summary*

The Backlog is a podcast is done by the Friedrich brothers covering a wide variety of games, and the Backlog website is going to cover the ever-growing list of games that the Friedrich brothers have previously talked about in the podcast and games that they plan on covering but have not yet talked about in depth. The database is internal and really only to be used by the Friedrich brothers as a tracking mechanism – to add games that have already been talked about or games that they want to talk about in the future.

The original design of the website and database design was much more complex than actual requirements. Based on advice from the TA/Professor/Graders we were able to leverage feedback and scale the project into something still useful but not unobtainable in the limited amount of time for creation.

TA/Professor and peer review feedback was valuable in reducing future complexity from the original design, to helping our deployment with major blocking problems. The major feedback incorporated included: Reduce tables from having three many to many relationships to one per requirement. Error 500 fix provided by Rohit Chaudhary due to db connection timeout <https://piazza.com/class/kirqdpeo2581v2?cid=259>. This was used to solve the timeout issues. Naming convention update to camel case, updating game to podcastEpisode relationship to zero or one (from one to many), update of game cost to decimal instead of integer. Updated True / False implementation from 0/1 to selection of True or False. Updated drop downs from unique identifiers to text associated with identifiers to make it easier on Friedrich brothers to not have to memorize codes.

### *Project Outline:*

Our project is going to implement a website for the Backlog Podcast. The Backlog is a podcast is done by the Friedrich brothers covering a wide variety of games, and The Backlog website is going to cover the ever-growing list of games that the Friedrich brothers have previously talked about in the podcast and games that they plan on covering but have not yet talked about in depth. The database supporting this website is going to contain that list. In other words, the database will contain games that the Backlog Podcast has talked about or thinks that it may have plans on covering in a future episode. With over 1,000 games released commercially every year, and more games on PC and Xbox coming out on GamePass, there's a need for a database that records the details for each game.

The database will contain the list of games that is discussed in the Backlog Podcast & Website. So for our purposes of a database this will be less than 1,000 entries in total, but will be expandable to up to 10,000 games (Game Entity). The Friedrich brothers talk about a lot of games, but only some games come up in the podcasts.

The database will contain up to:

- a. 1,000 unique games (game Entity), expandable to 10,000 games
- b. 100 unique game creators (gameCreator entity), with the opportunity to go up to at least 3,000 game creators as needed.
- c. 200 platforms (platform entity), though it is likely there will be less than 50 needed.
- d. 100 distribution platforms (distributionPlatform entity), though it is likely that less than 30 will be needed. – Removed from implementation – this exists only in

design document– this was a 2<sup>nd</sup> M:M that is not required for actual deployment in the website.

- e. 10 Game Genres listed (gameGenre entity), expandable to 100.
- f. 1,000 unique podcasts (podcastEpisode entity), expandable to 10,000.

In what follows, we provide those details as they relate to the database implementation.

For assignments we are a group and we are assigning a lead (person responsible) for the individual tables, but we will be working collaboratively.

### *Database Outline:*

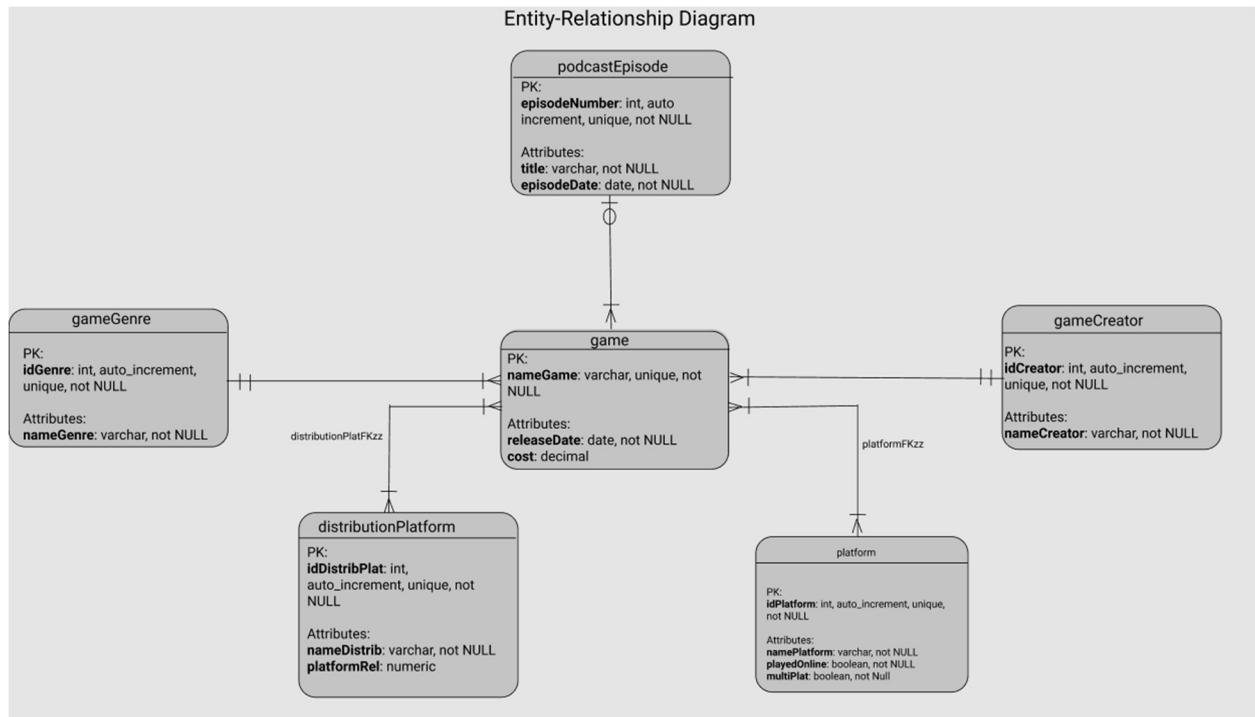
1. game (Entity): records the details of each game
  - a. nameGame: varchar, unique, not NULL, PK
  - b. releaseDate: date, not NULL
  - c. cost: decimal
  - d. Relationships:
    - i. 1:M - Game -> gameGenre implemented with nameGame as an FK inside Game
    - ii. 1:M - Game-> gameCreator implemented with nameGame as an FK inside Game
    - iii. 0:1 - Game -> podcastEpisode implemented with nameGame as an FK inside game
  - e. Assignment Lead - Josh
2. gameGenre (Entity): records the details of each game's genre
  - a. idGenre: int, auto increment, unique, not NULL, PK
  - b. nameGenre: varchar, not NULL
  - c. Relationships: (nameGame is nested as a FK inside gameGenre)
  - d. Assignment Lead - Andy
3. gameCreator (Entity): records the details of each game's creator
  - a. idCreator: int, auto increment, unique, not NULL, PK
  - b. nameCreator: varchar, not NULL

- c. Relationships: (nameGame is nested as an FK inside gameCreator)
  - d. Assignment Lead - Andy
4. platform (Entity): records the details of each platform
- a. idPlatform: int, auto increment, unique, not NULL, PK
  - b. namePlatform: varchar, not NULL
  - c. playedOnline: boolean, not NULL
  - d. multiPlat: boolean, not Null
  - e. Relationships:
    - i. M:M relationship to Game (using platformFKzz)
  - f. Assignment Lead - Josh
- ~~5. distributionPlatform (Entity): records the digital storefront where users can purchase the game (examples being GOG.com, store.steampowered.com, Playstation store, Xbox, Nintendo, iPhone, Google Play, and other platforms)~~
- ~~Removed from implementation—this exists only in design document—this was a 2<sup>nd</sup> M:M that is not required for actual deployment in the website.~~
- ~~a. idDistribPlat: int, auto-increment, unique, not NULL, PK~~
  - ~~b. nameDistrib: varchar, not NULL~~
  - ~~c. platformRel: numeric varchar~~
  - ~~d. Relationships:
    - ~~i. M:M relationship to Game (using distributionPlatFKzz)~~~~
  - ~~e. Assignment Lead—Andy~~
6. podcastEpisode (Entity): records the details of each episode

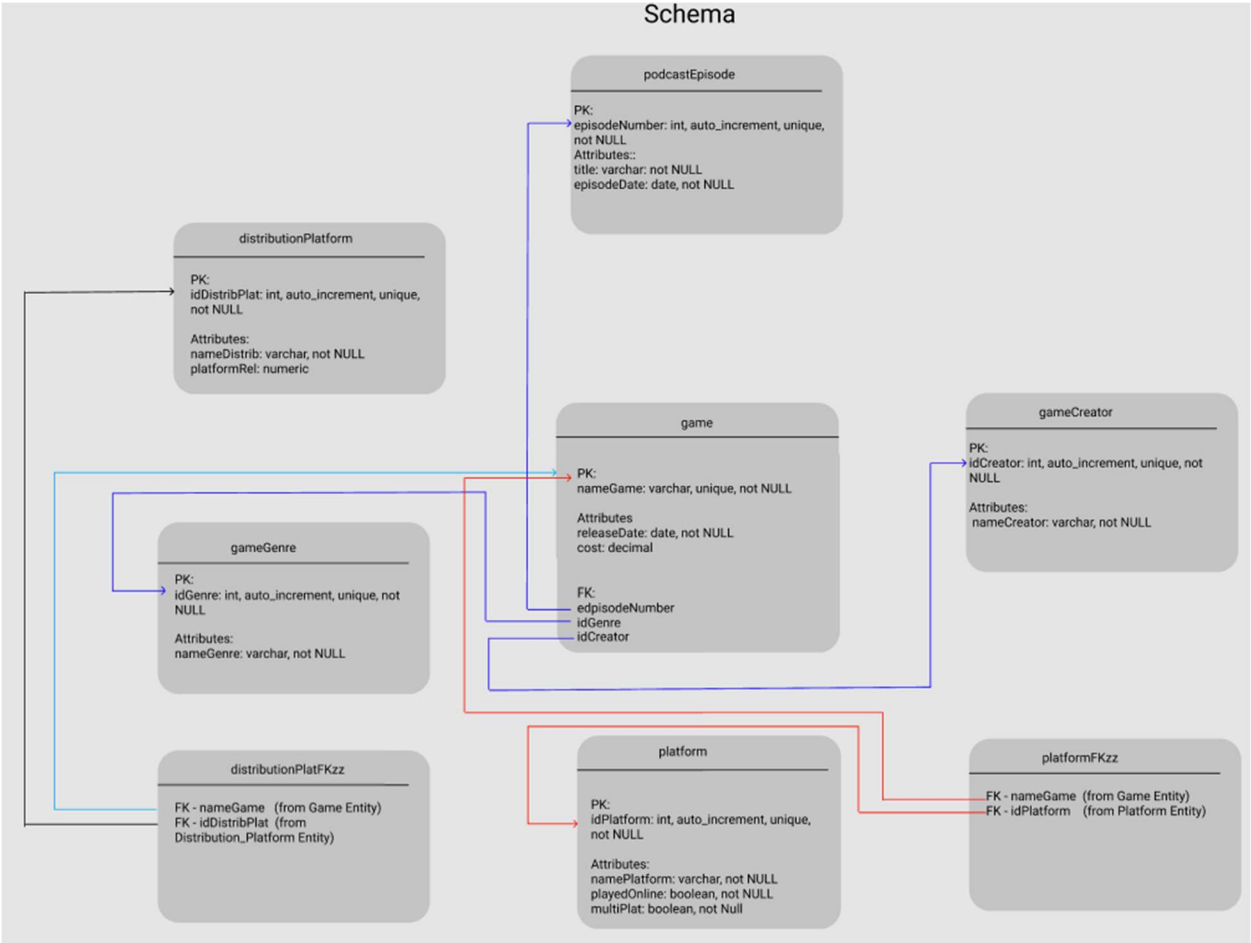
- a. episodeNumber: int, auto increment, unique, not NULL, PK
  - b. title: varchar: not NULL
  - c. episodeDate: date, not NULL
  - d. Relationships:
    - i. 1:M relationship with game, multiple games can be talked about in a podcast, but each game will only be assigned to one podcast.
  - e. Assignment Lead – Andy
7. platformFKzz table (many to many table)
- a. nameGame (from game entity), FK
  - b. idPlatform (from platform entity), FK
  - c. Relationship – ties game entity and platform entity
  - d. Assignment Lead - Josh
- ~~8. distributionPlatFKzz table (many to many table)~~ Removed from implementation
- this exists only in design document – this was a 2<sup>nd</sup> M:M that is not required for actual deployment in the website.
- ~~a. nameGame (from game entity), FK~~
  - ~~b. idDistributionPlat (from distributionPlatform entity), FK~~
  - ~~c. Relationship – ties game entity to distributionPlatform entity~~
  - ~~d. Assignment Lead – Andy~~



## Entity-Relationship Diagram:

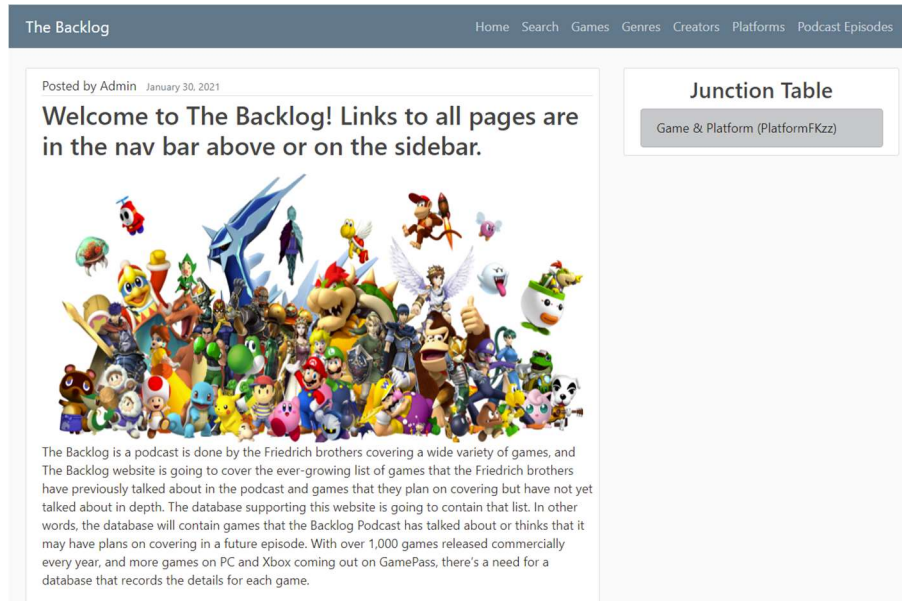


Schema:

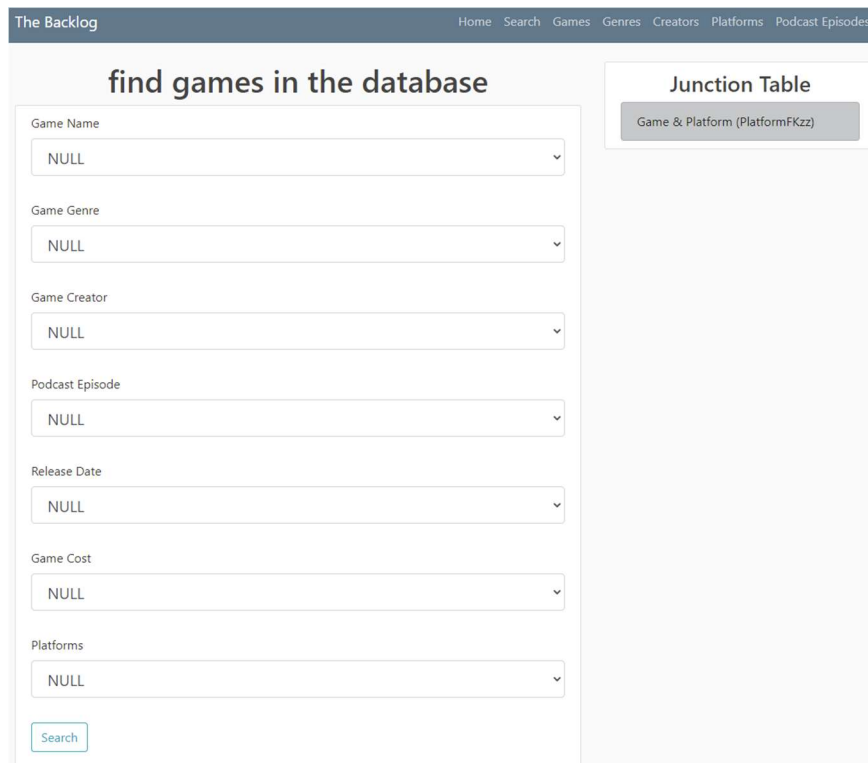


## Screenshots:

Home Page / Landing Screen with links to all other pages and tables.



Search Page with drop down – SEARCH/FILTER -



## Search – selecting Game cost - READ/BROWSE/DISPLAY -

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Game Creator

NULL

Podcast Episode

Episode 1 - Star Wars: TIE Fighter

Release Date

NULL

Game Cost

NULL

Platforms

NULL

Search

Game Creator: (FK) 1001Originally Released: 1999-01-01

**aaaaDoesaddnewgamework**

To be covered on podcast episode 1001.

Cost: \$99.00

Genre: (FK) 1001

Game Creator: (FK) 1003Originally Released: 2020-01-01

**aaaatestgame**

To be covered on podcast episode 1001.

## READ/BROWSE/DISPLAY – Games

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Find a Game

Search

Search

Browse Existing Games

Add GameEdit GameRemove Game

Game Creator: (FK) 1011Originally Released: 0000-00-00

**aaaAAANoPodCastEpisode**

Podcast Episode 1010.

Cost: \$99.00

Genre: (FK) 1010

Game Creator: (FK) 1001Originally Released: 1999-01-01

**aaaaDoesaddnewgamework**

Podcast Episode 1001.

Cost: \$99.00

Genre: (FK) 1001

Junction Table

Game & Platform (PlatformFKzz)

CREATE/INSERT/ADD NEW- addGame page – includes ability to have Podcast Episode to be NULL

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Add a Game

Game Name (Required)

aaaaAaaaOSUFOREVER\_EXAMPLE\_ADD

Release Date (Required)

1999-01-01

Game Cost (Required)

99

Game Genre (Required)

1001

Game Creator (Required)

1011

Podcast Episode (Optional)

1006

Platform (Required)

1004

Submit

Junction Table

Game & Platform (PlatformFKzz)

UPDATE-

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Edit a Game

\*Original\* Game Name (Required)

aaaaAaaaOSUFOREVER\_EXAMPLE\_ADD

Updated Game Name (Required)

aaaaAaaaMODIFIED\_OSUFOREVER\_EXAMPLE\_ADD

Updated Release Date (Required)

1999-01-01

Updated Game Cost (Required)

88.00

Updated Game Genre (Required)

1001

Updated Game Creator (Required)

1001

(Optional) Updated Podcast Episode

1001

Submit Change

Junction Table

Game & Platform (PlatformFKzz)

DELETE – on the game page delete a game (<http://flip3.engr.oregonstate.edu:7862/games>)

### Remove a Game

Game Name

aaaAAAaaaOSUFOREVER\_EXAMPLE\_ADD

Submit

CREATE/INSERT/ADD NEW- Genre

The Backlog

Home Search Games Genres Creators Platforms Podcast Episodes

Find a Genre

Search

Search

Browse Existing Genres

Add Genre Remove Genre

Posted by Andy on 1:24:2021

### Game Genres

Genre ID: 1001  
Genre Name: Real Time Strategy (RTS)

Genre ID: 1002  
Genre Name: Role-Playing (RPG)

Junction Table

Game & Platform (PlatformFKzz)

CREATE/INSERT/ADD NEW- Add a new Genre

The Backlog

Home Search Games Genres Creators Platforms Podcast Episodes

Add a Genre

Genre Name (Required)

OSU\_GENRE\_BESTEST

Submit

Junction Table

Game & Platform (PlatformFKzz)

## DELETE – remove a Genre

The Backlog

Home Search Games Genres Creators Platforms Podcast Episodes

Remove a Genre

Game Genre

Real Time Strategy (RTS) ▼

Submit

Junction Table

Game & Platform (PlatformFKzz)

## READ/BROWSE/DISPLAY – Creator

The Backlog

Home Search Games Genres Creators Platforms Podcast Episodes

Find a Creator

Search

Search

Browse Existing Creators

Add Creator Remove Creator

Posted by Andy on 1.24.2021

Game Creators

Creator ID: 1001

Creator Name: LucasArts

Junction Table

Game & Platform (PlatformFKzz)

## CREATE/INSERT/ADD NEW- Creator

The Backlog

Home Search Games Genres Creators Platforms Podcast Episodes

Add a Creator

Creator Name (Required)

OSU\_BESTEST\_CREATOR

Submit

Junction Table

Game & Platform (PlatformFKzz)

DELETE – Creator

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Remove a Creator

Game Creator

zzzRyanRyam

Submit

Current Game Creators

Creator ID: 1001

Creator Name: LucasArts

Creator ID: 1002

Junction Table

Game & Platform (PlatformFKzz)

READ/BROWSE/DISPLAY – Platforms

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Find a Platform

Search

Search

Browse Existing Platforms

Add PlatformRemove Platform

Platform ID: 1001

PC (Personal Computer)

Can it be played online? Yes

Is it multiplatform? Yes

Platform ID: 1002

MAC (Personal Computer, MAC compatible)

Can it be played online? Yes

Is it multiplatform? Yes

Junction Table

Game & Platform (PlatformFKzz)



## CREATE/INSERT/ADD NEW- Platform

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Add a Platform

Platform Name (Required)

OmegaGameSphere Gramez Platform

Playable Online? (Required)

True

Playable on Multiple Platforms? (Required)

False

Submit

Junction Table

Game & Platform (PlatformFKzz)

## DELETE – Platform

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Remove a Platform

Platform

NewOSUServerszz

Submit

Junction Table

Game & Platform (PlatformFKzz)

Current Platforms

Platform ID: 1001

PC (Personal Computer)

Can it be played online? 1

Is it multiplatform? 1

Platform ID: 1002

MAC (Personal Computer, MAC compatible)

Can it be played online? 1

Is it multiplatform? 1

## READ/BROWSE/DISPLAY – Podcast Episodes

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Find an Episode

Search

Search

Browse Existing Planned Episodes

Add EpisodeRemove Episode

Podcast Episode on Episode 1 - Star Wars: TIE Fighter

Episode Number 1001

To be posted on 2017-07-30

Podcast Episode on Episode 2 - Starcraft Remastered

Episode Number 1002

To be posted on 2017-08-06

Junction Table

Game & Platform (PlatformFKzz)

## CREATE/INSERT/ADD NEW- Podcast Episode

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Add an Episode

Episode Title (Required)

Podcast Episode 2001 OSU Episode

Episode Date (Required: YYYY-MM-DD)

2021-03-04

Submit

Junction Table

Game & Platform (PlatformFKzz)

## DELETE – Podcast Episode

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Remove an Episode

Episode

lolzCATZ U BEEN HAXORED

Submit

Junction Table

Game & Platform (PlatformFKzz)

Current Episodes

Podcast Episode on Episode 1 - Star Wars: TIE Fighter

Episode Number 1001

To be posted on 2017-07-30

## READ/BROWSE/DISPLAY – Junction Table for Game & Platform

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Find a Combo (Search by Game Name)

Search

Search

Junction Table

Game & Platform (PlatformFKzz)

Browse Existing Game and Platform Combos

Add Combo

Remove Combo

Posted by Admin on Jan 1, 2021

Game ID: aaaAAANoPodCastEpisode

Platform table ID: 1001

Posted by Admin on Jan 1, 2021

Game ID: aaaAAANoPodCastEpisode

Platform table ID: 1023

CREATE/INSERT/ADD NEW- Junction Table Game & Platform

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Add a Game & Platform Combo

Game Name (Required)

ElderScrollsArena

Platform ID (Required)

1014

Submit

Junction Table

Game & Platform (PlatformFKzz)

DELETE – Junction Table Game & Platform

The Backlog

HomeSearchGamesGenresCreatorsPlatformsPodcast Episodes

Remove a Combo

Game

ZZZZZZZZ

Submit

Junction Table

Game & Platform (PlatformFKzz)