Gamification Data Model and API Documentation

Logical Model
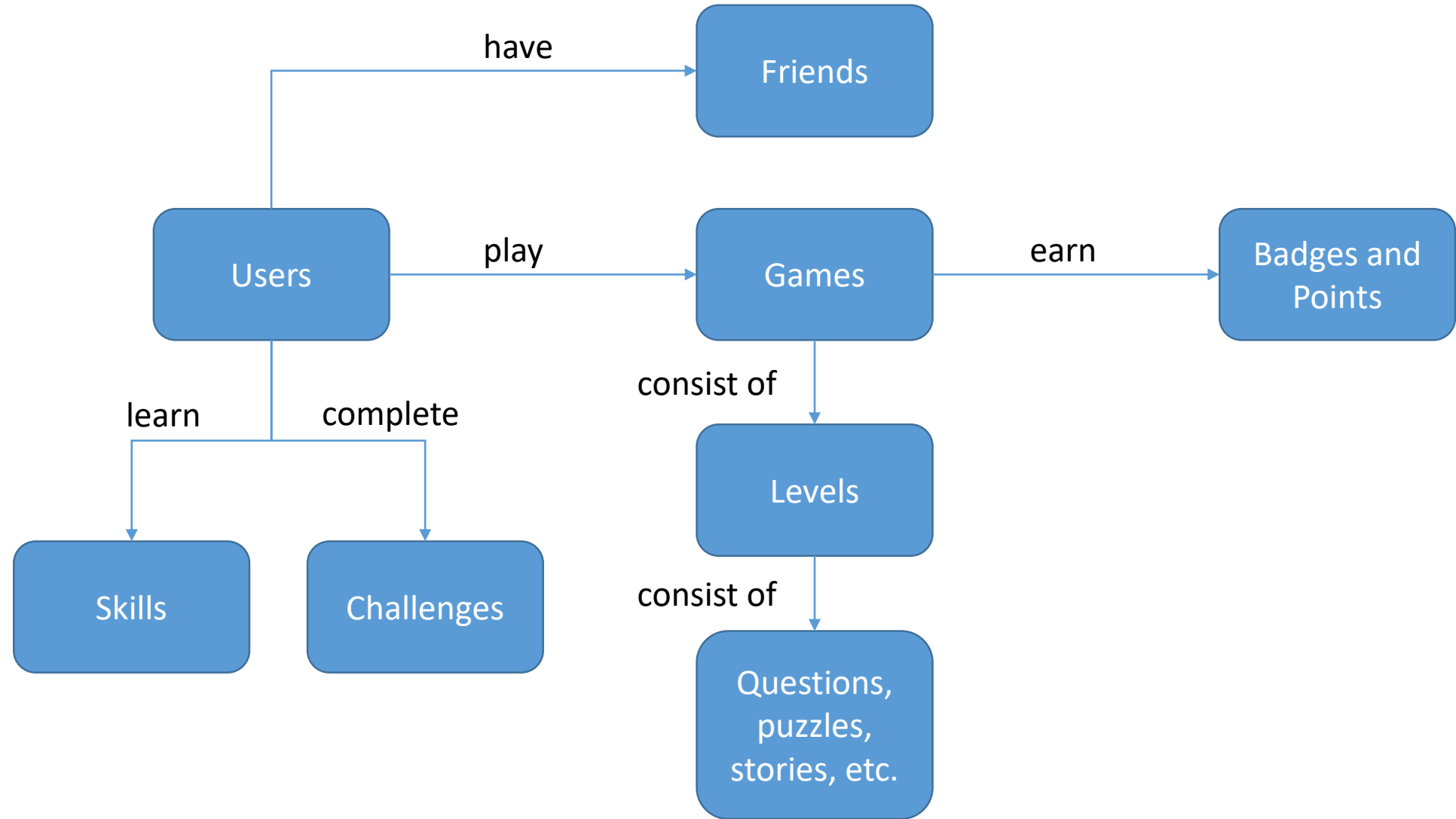
Data Model
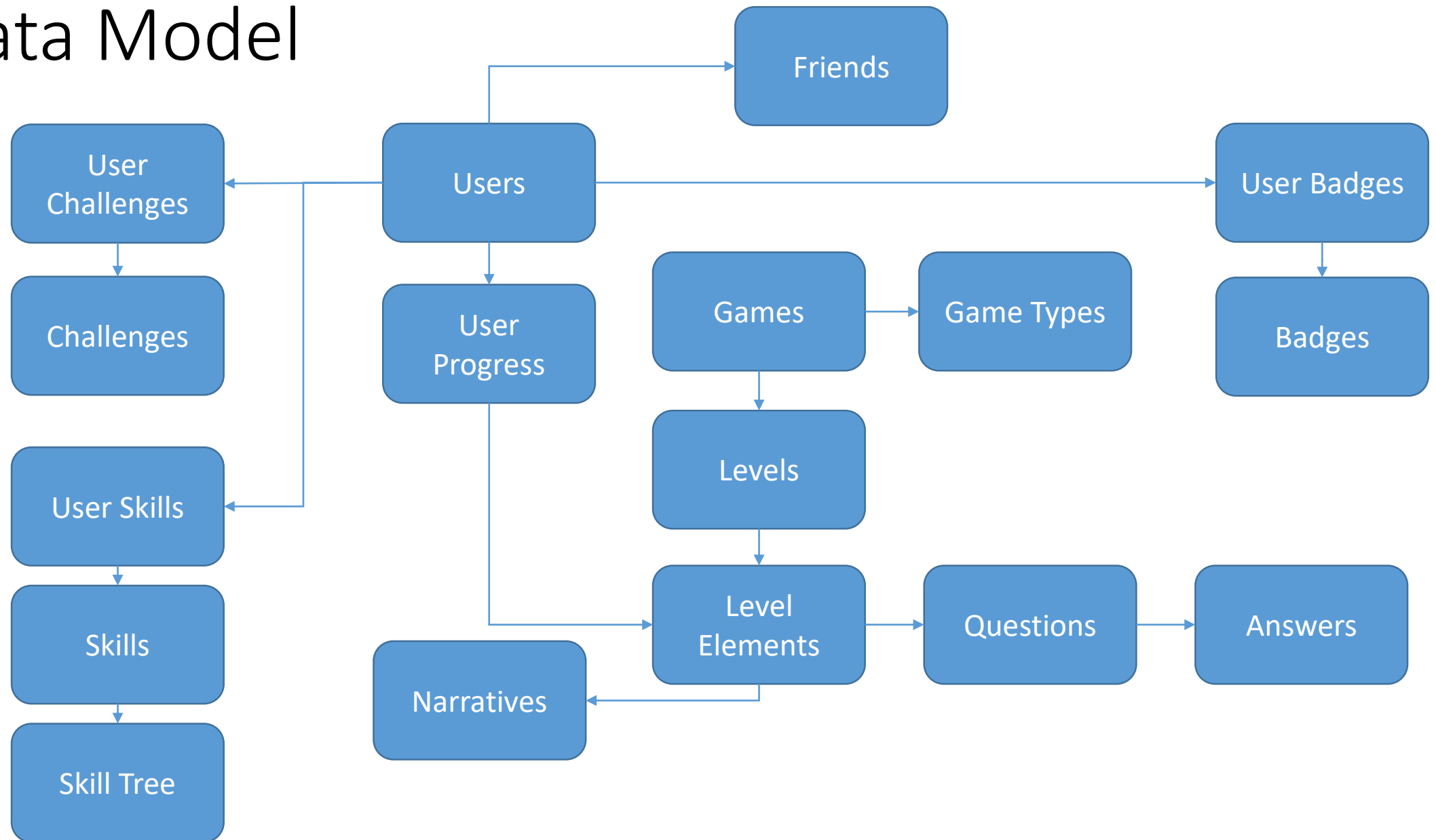
users

Column Name	Type	Description
user_id	Int	Abstract Primary Key
user_name	String (45)	Users real name
user_level	Int	Current level of the user
user_points	Int	Current number of points
player_name	String(45)	Users avatar name
avatar_image	String(200)	URL or filename for image
user_category	String(45)	Category, if you want to split leaderboards/rankings/etc
user_attributes	String(2000)	Catch all field to put name value pairs or JSON object to store additional attributes

user_badges

Column Name	Type	Description
ub_id	Int	Abstract Primary Key
user_id	Int	Foreign Key to users table
badge_id	Int	Foreign Key to badge table

badges

Column Name	Type	Description
badge_id	Int	Abstract Primary Key
badge_name	String (45)	Name of the badge
badge_pic	String (200)	URL or filename of badge picture
multiple_flag	String (1)	Y or N for whether you can earn the badge multiple times

user_progress

Column Name	Type	Description
up_id	Int	Abstract Primary Key
user_id	Int	Foreign Key to users table
le_id	Int	Foreign Key to level_elements table
notes	String (1000)	Implementation specific notes field

games

Column Name	Type	Description
game_id	Int	Abstract Primary Key
game_type	Int	Foreign Key to game_types table
game_name	String(45)	Name of the game
game_description	String (1000)	Description of the game

game_types

Column Name	Type	Description
game_type_id	Int	Abstract Primary Key
game_type_name	String(45)	Name of game type
game_type_description	String (1000)	Description of the game type

levels

Column Name	Type	Description
level_id	Int	Abstract Primary Key
game_id	Int	Foreign key to games table
level_name	String (45)	Name of the level
level_description	String (1000)	Description of the level

level_elements

Column Name	Type	Description
element_id	Int	Abstract Primary Key
level_id	Int	Foreign key to levels table
element_type	String (40)	Type of element (question or narrative)
key	Int	Key to element child table (could be question or narrative)
element_sequence	Int	Ordering key for level elements

narratives

Column Name	Type	Description
narrative_id	Int	Abstract Primary Key
url	String(250)	url to narrative element
Pic	String (200)	url or filename to image element
text	String(2000)	Text for narrative element

questions

Column Name	Type	Description
question_id	Int	Abstract Primary Key
question_title	String(100)	Title of the question
question_text	String (2000)	Text of the question
question_type	String (45)	Category or type tag
hint_text	String (500)	Hint text if desired

answers

Column Name	Type	Description
answer_id	Int	Abstract Primary Key
question_id	Int	Foreign Key to questions table
answer_text	String (200)	Text of the answer
answer_pic	String (500)	URL or filename of picture
correct_flag	String (1)	Y or N to indicate if this is a correct answer

skills

Column Name	Type	Description
skill_id	Int	Abstract Primary Key
skill_name	String (45)	Name of the skill
skill_description	String (1000)	Description of the skill

user_skills

Column Name	Type	Description
us_id	Int	Abstract Primary Key
skill_id	Int	ID of the skill the user has (FK)
user_id	Int	ID of the user (FK)

skill_tree

Column Name	Type	Description
st_id	Int	Abstract Primary Key
parent_id	Int	ID of the parent Skill (FK)
skill_id	Int	ID of the child Skill (FK)

This supports both multiple
parents and multiple children

friends

Column Name	Type	Description
friend_id	Int	Abstract Primary Key
user_friend_id	Int	ID of the friend the user has (FK)
user_id	Int	ID of the user (FK)

challenges

Column Name	Type	Description
challenge_id	Int	Abstract Primary Key
challenge_name	String(100)	Name of the challenge
challenge_description	String(1000)	Description of the challenge
challenge_start	Timestamp	Start time of challenge, if the challenge is only active for a specific window
challenge_end	Timestamp	End time of the challenge
challenge_duration	String(45)	Duration if not a specific window (i.e. log in for 3 days)
challenge_type	String(45)	Category field; each app may use in its own way
badge_id	Int	For any linked badge on completion
points	Int	Number of points awarded for completion
linked_id	Int	Along with category, could specify a specific level/element/etc that needs to be completed

user_challenges

Column Name	Type	Description
uc_id	Int	Abstract Primary Key
challenge_id	Int	ID of the challenge (FK)
user_id	Int	ID of the user (FK)
progress_notes	String(1000)	Generic field to store additional information about completion

API Layer

The API can be broken down along the lines of the logical model, and focuses on get and set operations. There are the following endpoints provided: