MSE | MASTER OF SCIENCE IN ENGINEERING

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OSF Gamification Project

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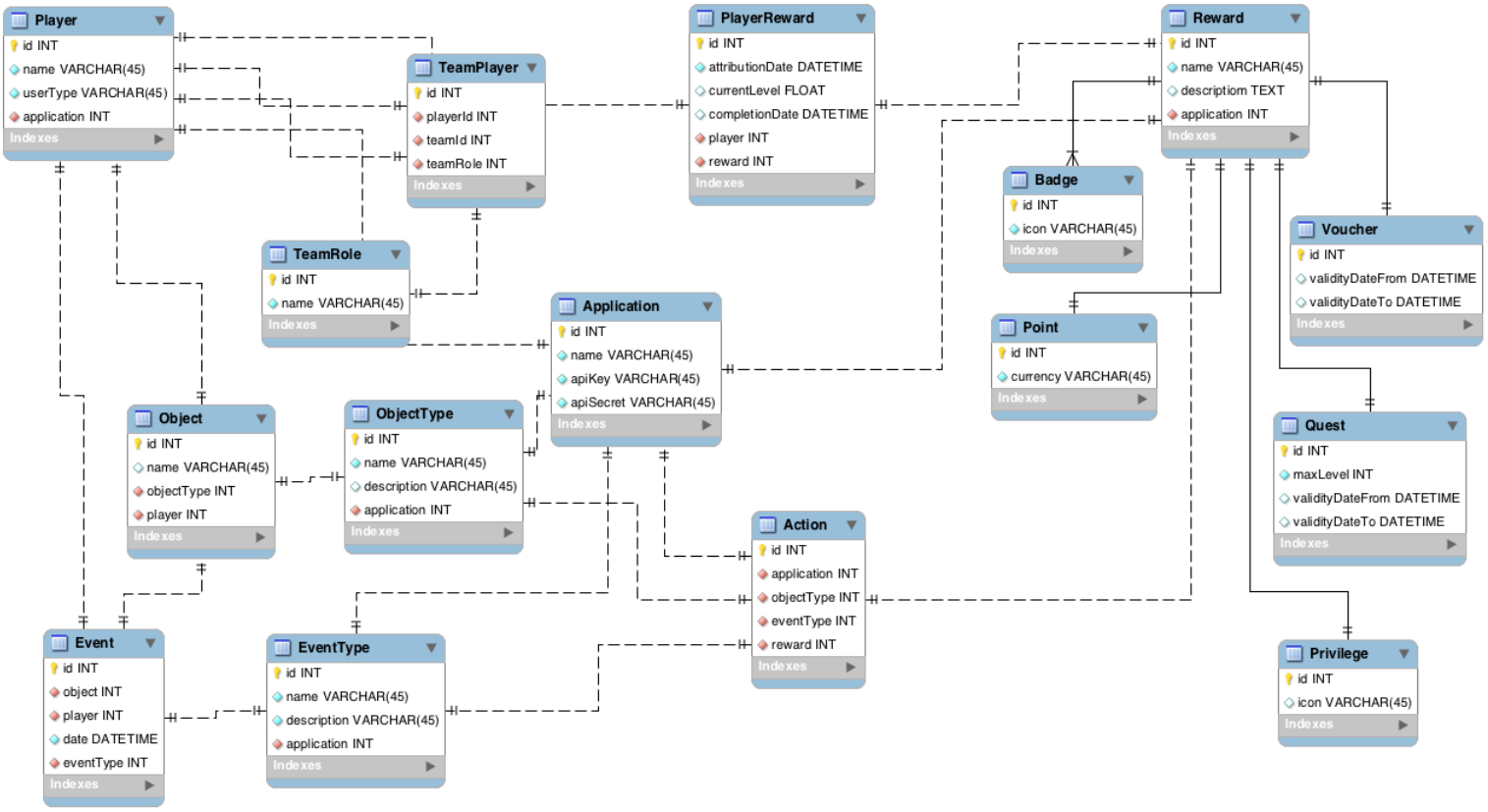
Introduction

The project developed is a Gamification API that is designed to work as a service for other social applications. Our API manages all the users including their actions and progress through a specific application.

The access to the API is done through web services developed to control all the entities and aspects of the application. The client application will be able to manipulate the offered resources by calling different types of web services (GET, PUT, POST, DELETE).

In the following sections, the data model used to obtain all the functionalities and the different web services available will be detailed.

Gamification object diagram



Player

The main object in this diagram is the “Player”. The player can be a single person or a team. This is specified in the playerType attribute of the Player.

The members of a team are specified in the TeamPlayerObject. Each member of a team has specific roles in that team.

Awards

Our API offers different types of rewards. A player can have multiple rewards which acquisition is saved In the PlayerReward object.

Event

An event is invoked by a player on an object possessed by either another player or the same player. Each event has a type, and each object has a type too.

Action

An action can be considered as a set of rules that enables a player getting a reward. In fact the action takes in input an eventType and an objectType, and produces in output a reward that will be assigned to the player who invoked the event.

Restful URL patterns

This is a brief description of the web services patterns offered by our application. The other objects in the data model can be accessed in the same way. An interactive documentation can be found on http://gamificationapidianajosephahmed.apiary.io.

Player

- http://www.my-gamification.com/webresources/players/
  - GET to retrieve the list of all players including group and persons
- http://www.my-gamification.com/webresources/players?search=[string]
  - GET to retrieve the list of all players matching the criterion [string]
- http://www.my-gamification.com/webresources/players/[id]/rewards/
  - GET to retrieved all rewards of the player with id [id]
  - POST to add a reward to player with id [id]
    - Returns 201 Added
- http://www.my-gamification.com/webresources/players/[id]/rewards/[id1]
  - GET to retrieve the reward with id [id1] of the player with id [id]
- http://www.my-gamification.com/webresources/players/[id]
  - redirects to http://www.my-gamification.com/webresources/persons/[id] if the player of id [id] is a person
  - redirects to http://www.my-gamification.com/webresources/groups/[id] if the player of id [id] is a group

Person

- http://www.my-gamification.com/webresources/persons/
  - GET to retrieve the list of all persons
  - POST to create a new person
    - Returns 201 Created
- http://www.my-gamification.com/webresources/persons/[id]
  - GET to retrieve
  - PUT to update
  - DELETE to delete

Group

- http://www.my-gamification.com/webresources/groups/
  - GET to retrieve the list of all groups
  - POST to create a new group
    - Returns 201 Created
- http://www.my-gamification.com/webresources/groups/[id]
  - GET to retrieve

- PUT to update
- DELETE to delete

<u>N.B:</u> All the GET webservices should receive in parameter the application id in the key "appId"