

# FarmClash - API Blueprint for Web-based Idle Game

Camille De Vuyst, Joren Van der Sande, Thomas De Volder,  
Faisal Ettarrahi, Ferhat Van Herck, Siebe Mees

April 16, 2024

## Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
1.1	Base URL . . . . .	2
<b>2</b>	<b>Users</b>	<b>2</b>
<b>3</b>	<b>Maps</b>	<b>3</b>
<b>4</b>	<b>Resources</b>	<b>3</b>
4.1	General Resource Information . . . . .	3
4.2	Specific Resource Information . . . . .	4
<b>5</b>	<b>Terrain Map</b>	<b>5</b>
5.1	General Terrain Map Information . . . . .	5
5.2	Specific Terrain Tile Information . . . . .	5
<b>6</b>	<b>Friendships</b>	<b>6</b>
<b>7</b>	<b>Chat</b>	<b>6</b>
<b>8</b>	<b>Leaderboard</b>	<b>7</b>

# 1 Introduction

This document outlines the API endpoints for a web-based idle game. Each endpoint requires user authentication and certain routes are restricted to admin users only.

## 1.1 Base URL

The base URL for all API requests is `https://team3.ua-ppdb.me/api/`.

# 2 Users

- Endpoint: `/users`
- Method: GET
- Description: Get a look at all the users.
- Access: Requires `admin` user privileges.
- Response: A JSON array of user objects, each containing:

```
[
  {
    "created_at": "Date",
    "email": "email@example.com",
    "password": "pbkdf2:sha256:hashedpassword",
    "username": "username"
  },
  {
    "created_at": "Another date",
    "email": "anotheremail@example.com",
    "password": "pbkdf2:sha256:anotherhashedpassword",
    "username": "anotherusername"
  }
  // Additional user objects as needed
]
```

## 3 Maps

- Endpoint: `/maps`
- Method: GET
- Description: Get a look at all the maps.
- Access: Requires **admin** user privileges.
- Response: A JSON array of map objects, each containing:

```
[
  {
    "map_id": 1,
    "username_owner": "ownerUsername",
    "width": 100,
    "height": 100,
    "created_at": "Tue, 26 Mar 2024 13:55:30 GMT"
  },
  {
    "map_id": 2,
    "username_owner": "anotherOwnerUsername",
    "width": 150,
    "height": 150,
    "created_at": "Wed, 27 Mar 2024 14:00:00 GMT"
  }
  // Additional map objects as needed
]
```

## 4 Resources

### 4.1 General Resource Information

- Endpoint: `/resources`
- Method: GET

- Description: Retrieves a comprehensive list of resources across all users. Designed for administrative use to monitor and manage resources system-wide.
- Access: Admin privileges required.
- Response: A JSON array of objects, each representing a resource. Each object includes the resource type, amount, owner's username, and a unique resource identifier. Example of a generalized response:

```
[
  {
    "resource_id": "unique_identifier",
    "resource_type": "type_of_resource",
    "amount": "quantity_of_resource",
    "owner": "username_of_owner"
  },
  ... // Additional resource objects
]
```

## 4.2 Specific Resource Information

- Endpoint: `/resources/<string:username>`
- Method: GET
- Description: Retrieves a list of resources owned by a specific user.
- Access: Admin privileges required.
- Response: A JSON array of objects, each representing a resource owned by the specified user. Each object includes the resource type, amount, and a unique resource identifier. Example of a generalized response:

```
[
  {
    "resource_id": "unique_identifier",
    "resource_type": "type_of_resource",
    "amount": "quantity_of_resource"
  }
]
```

```

    },
    ... // Additional resource objects
]

```

## 5 Terrain Map

### 5.1 General Terrain Map Information

- Endpoint: /terrain-map
- Method: GET
- Description: Get a look at all the terrain tiles in the map.
- Access: Requires `logged in` user privileges.
- Response: A JSON array of tile objects, each containing:

```

[
  {
    "map_height": 2,
    "map_width": 2,
    "terrain_tiles": [
      [Water1.1, Water1.2],
      [Water2.1, Water2.2]
    ]
  }
]

```

### 5.2 Specific Terrain Tile Information

- Endpoint: /terrain-map/<string:friend\_username>
- Method: GET
- Description: Get a look at a user specific terrain tile in the map.
- Access: Requires `logged in` user privileges.

- Response: A JSON object containing the terrain tile information:

```
[
  {
    "map_height": 2,
    "map_width": 2,
    "terrain_tiles": [
      [Water1.1, Water1.2],
      [Water2.1, Water2.2]
    ]
  }
]
```

## 6 Friendships

- Endpoint: `/friends`
- Method: GET
- Description: Get a list of all friends for the current user.
- Access: Requires `logged in` user privileges.
- Response: A JSON array of relationship objects, each containing:

```
[
  "friend1",
  "friend2",
  "friend3"
]
```

## 7 Chat

- Endpoint: `/messages/<string:friend_name>`
- Method: GET

- Description: Get a list of all chat messages for the current user.
- Access: Requires `logged in` user privileges.
- Response: A JSON array of chat message objects, each containing:

```
[
  {
    message_id: 1,
    "sender": "senderUsername",
    "receiver": "receiverUsername",
    "message": "Hello, how are you?",
    "created_at": "Tue, 26 Mar 2024 13:55:30 GMT"
  },
  {
    message_id: 2,
    "sender": "receiverUsername",
    "receiver": "senderUsername",
    "message": "I'm good, thanks!",
    "created_at": "Tue, 26 Mar 2024 13:56:30 GMT"
  }
  // Additional chat message objects as needed
]
```

## 8 Leaderboard

- Endpoint: `/leaderboard`
- Method: GET
- Description: Get a list of top 3 users, 2 friends and yourself sorted by their score.
- Access: Requires `logged in` user privileges.
- Response: A JSON array of user objects, each containing:

```
[
  {
    "place": 1,
    "username": "username",
    "score": 100
  },
  {
    "place": 2,
    "username": "anotherUsername",
    "score": 200
  }
  // Additional user objects as needed
]
```