

# **API Reference**

# Introduction

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This document is the API design document for "MINI QUEST," an authentic and innovative social game developed by SCROLL ETHNIC.

MINI QUEST is designed to implement all its functionalities as APIs running on Docker containers, aiming for a loosely coupled system, ease of functionality expansion, and consideration for security.

Aug. 1 2023  
The president of SCROLL ETHNIC

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# Content for checking container operation verification

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This is an API to confirm that the containers are started correctly.

## |Endpoint URL

GET `http://ipaddress:8080/check.php`

## |Response

### Normal response

200 OK  
ok

# User Registration

By sending a POST request with the username, password, and in-game character name, the user can be registered.

## Endpoint URL

POST http://ipaddress/create

## Parameters

Content-Type: application/json

Parameter	Mandatory	Example	Description
user_name	✓	Tanaka	Username (Login ID)
password	✓	pass123	Password
nick_name	✓	Gandalf	Nickname

## Responses

### Normal response

```
{'result': 'ok'}
```

### Abnormal response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Username is duplicate.	The username is already used (duplicated).
Invalid method.	The HTTP request method is not POST.
Not found required param(s).	Required parameters are missing.
Invalid param(s).	The parameters are incorrect (The JSON is broken).

# Login

---

By sending a POST request with the username and password, you can log in. Upon successful login, the session\_id is stored in Redis, and you can retrieve the user ID by querying Redis with the session\_id. The session\_id has a validity period of 86,400 seconds (1 day).

## |Endpoint URL

POST http://ipaddress/login

## |Parameters

Content-Type: application/json

Parameter	Mandatory	Example	Description
user_name	✓	Tanak	Username (Login ID)
password	✓	pass123	Password

## |Responses

### Normal response

```
{'result': 'ok', 'session_id': 'abcdefg'}
```

\* The session\_id can also be obtained from Cookie.

### Abnormal response

```
{'result': 'ng', 'msg': 'something'}
```

## |Errors messages

msg	Description
Invalid your username and password.	Invalid username and password.
Invalid method.	The HTTP request method is not POST.
Not found required param(s).	Required parameters are missing.

---

Invalid param(s).

The parameters are incorrect (The JSON is broken).



# Get User ID (For debugging purpose)

---

By sending a POST request with the session ID, you can get the user ID.

## Endpoint URL

POST http://ipaddress/user\_id

## Parameter

Content-Type: application/json

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID

## Responses

### Normal Response

```
{'result': 'ok', 'user_id': '1'}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Invalid method.	The HTTP request method is not POST.
Not found required param(s).	Required parameters are missing.
Invalid param(s).	The parameters are incorrect (The JSON is broken).

# Upload an Image

---

You can upload an image by sending a POST request with the session ID, image file name, and the image file.

## Endpoint URL

POST http://ipaddress/upload

## Parameters

Content-Type: application/json

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID
file_name	✓	test.png	File name (cannot be one that is already uploaded)
file_data	✓	iVBORw0KGgoAA...	Binary Base64 value of the file

## Responses

### Normal Response

```
{'result':'ok'}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Filename is duplicate.	The file already exists. Please rename the file and try

	again.
Invalid method.	The HTTP request method is not POST.
Not found required param(s).	Required parameters are missing.
Invalid param(s).	The parameters are incorrect (The JSON is broken).

# Withdrawal

---

By sending a POST request with the session ID, you can withdraw from the game.

## |Endpoint URL

POST http://ipaddress/delete\_user

## |Parameter

Content-Type: application/json

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623 544e839579c3	Session ID

## |Responses

### Normal Response

```
{'result': 'ok'}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## |Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Invalid method.	The HTTP request method is not POST.
Not found required param(s).	Required parameters are missing.
Invalid param(s).	The parameters are incorrect (The JSON is broken).

# Ranking

---

When the Content-Type is "application/json," you will get the ranking in JSON format. In all other cases, the response will be obtained in HTML format.

## |Endpoint URL

GET <http://ipaddress/ranking>

## |Parameter

Content-Type: application/json

Parameter	Mandatory	Example	Description
none			

## |Responses

### Normal Response

```
{
  [
    'user_name' : 'XXX','nick_name' : 'XXX','level' : 'XXX','stamina' : 'XXX','gold' : 'XXX',
    'exp' : 'XXX','weapon_id' : 'XXX','armor_id' : 'XXX'
  ], ...Omitted
}
```

### Abnormal Response

none

\* If there is an issue with the request, an HTML-formatted error response may be returned.

## |Error message

There are no anticipated error cases. If no user exists, an empty JSON format will be returned.

# Stamina Recovery

---

Stamina is a required attribute when battling enemies. By sending a POST request with the amount to be in-game currency, you can recover stamina.

## Endpoint URL

POST `http://ipaddress/recovery`

## Parameter

Content-Type: `application/json`

Parameter	Mandatory	Example	Description
<code>price</code>	✓	<code>100</code>	The cost to recover stamina

## Responses

### Normal Response

```
{"result": "ok"}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Price is required.	The parameter "price" is required.
Battle is going on.	Cannot use this API during battle.

# Gacha

---

"Gacha" is a feature that allows players to draw equipment through a lottery system. You can initiate a gacha draw by spending in-game currency. In the current specifications, the system selects one piece of equipment (15 types of weapons and 15 types of armor) registered in the "equipment" table. The draw is implemented to vary the winning probability based on the equipment's rarity. The default winning probabilities are as follows:

SR (Super Rare): 0.01%

R (Rare): 0.99%

N (Normal): 99%

If the equipment obtained from the gacha is better than what the player currently has equipped, the player's equipment will be overwritten with the drawn equipment at the end of the process.

## |Endpoint URL

POST `http://ipaddress/gacha`

## |Parameter

Content-Type: application/json

Parameter	Mandatory	Example	Description
gold	✓	100	In-game currency consumed for gacha draws

## |Responses

### Normal Response

The value of "resulttype" changes depending on the processing outcome.

- If the in-game currency possessed is less than the required amount for the gacha.  
{ "name": "", "rarity": "", "result": "ok", "resulttype": 1, "type": "" }
- If the equipment obtained from the gacha is worse than the currently equipped equipment.

```
{"name": "Bamboo Sword", "rarity": "N", "result": "ok", "resulttype": 2, "type": "weapon"}
```

- If the equipment obtained from the gacha is better than the currently equipped equipment.

```
{"name": "Bronze Sword", "rarity": "N", "result": "ok", "resulttype": 3, "type": "weapon"}
```

## Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Gold is required.	The parameter "gold" is required.
Invalid session ID.	You are not logged in or the session ID is invalid.
Battle is going on.	Cannot use this API during battle.



# Player Data

You can retrieve data about characters in the game, including name, level, attributes, equipment, and possessed currency.

## Endpoint URL

GET `http://ipadress/player`

## Parameters

Cookie

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID
user_data		1	Data retrieval using the user ID (for debugging purpose)

## Responses

### Normal Response

```
{armor_id:19, armor_name:"Leather Armour", armor_param:9, armor_rarity:"N",
created_at:"2022-09-03T04:34:06", exp:2, gold:1002, id:5, image:"default.png", level:1,
max_hp:15, max_stamina:10, max_str:5, need_exp:2, nick_name:"test", password:"test",
result:"ok", stamina:10, staminaupdated_at:"2022-09-03T06:58:54", user_name:"test",
weapon_id:5, weapon_name:"Stone Axe", weapon_param:12, weapon_rarity:"N"}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
-----	-------------

Session ID is required.	The session ID is required.
Invalid session ID.	You are not logged in or the session ID is invalid.

# In-game purchase

---

By sending a POST request with the amount to be charged, you can get the in-game currency required for drawing a gacha.

## Endpoint URL

POST `http://ipaddress/charge`

## Parameters

Cookie

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID

Content-Type: application/json

Parameter	Mandatory	Example	Description
price	✓	100	Amount to be charged

## Responses

### Normal Response

```
{"result": "ok"}
```

### Abnormal Response

```
{'result': 'ng', 'msg': 'something'}
```

## Error messages

msg	Description
Session ID is required.	The session ID is required.

Price is required.	The price is required.
Invalid session ID.	You are not logged in or the session ID is invalid.
Battle is going on.	Cannot use this API during battle.

# Battle Course List

---

Get available battle courses.

## Endpoint URL

GET http://ipadress/courseget

## Parameter

Cookie

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8 b623544e839579c3	Session ID

## Responses

### Normal Response

```
{ "result": "ok", "course": [ { "id": 0, "name": "easy", "stamina": 10 }, { "id": 1, "name": "normal", "stamina": 20 }, { "id": 2, "name": "hard", "stamina": 30 } ] }
```

### Abnormal Response

content-type: application/json

```
{ "msg": "nanika", "result": "ng" }
```

## Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Can't find course	There is a problem with the database connection, and course information could not be found.

# Determination of the battle course

---

Notify the selected course to the game server from the list of available courses obtained from the course list.

## Endpoint URL

POST `http://ipadress/coursepost`

## Parameters

Cookie

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID

Content-Type: application/json

Parameter	Mandatory	Example	Description
id	✓	1	Course number

## Responses

### Normal Response

content-type: application/json

```
{ "cost":10, "course":1, "enemy":{"name":"xxx",...}, "phase":1, "player":{"id":1,...}, "result":"ok", "tot_damage":0, "turn":0, }
```

### Abnormal Response

content-type: application/json

```
{ "result":"ng", "msg":"nanika" }
```

## | Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Can't find course	There is a problem with the database connection, and course information could not be found.
Not found required param(s)	Required parameters are missing.
Invalid param(s)	The input parameters are invalid.
Can't find course id.	Course ID not found
Can't find player information.	Player information not found
You lack stamina.	Insufficient stamina.
Can't find enemy information.	Cannot retrieve enemy information.
Can't update battle information.	Unable to update battle information.

# Battle

By sending a POST request with the information obtained from the course selection API, you can start a battle. Multiple exchanges of data will be required until the battle concludes.

## Endpoint URL

POST `http://ipadress/battle`

## Parameters

Cookie

Parameter	Mandatory	Example	Description
session_id	✓	fdf5c94f673f48693ca488c8b623544e839579c3	Session ID

Content-Type: application/json

Parameter	Mandatory	Example	Description
cost	✓	10	Consumed stamina
course	✓	1	Course Number
enemy	✓	{"exp":1,"gold":1,...}	Enemy Information (JSON)
phase	✓	1	Battle status 1: Before battle 2: During battle 3: After battle
player	✓	{"id":1,"armor":"Chain Mail",...}	Player data (JSON)
result		ok	result



tot_damage	✓	0	Total damage
turn	✓	0	Inning number

## | Responses

### Normal Response

Basically, it's the same as course selection, but the values are updated to reflect the current battle situation.

```
{ "cost":10, "course":1, "enemy":{"name":"xxx",...}, "phase": 2, "player":{"id":1,...}, "status":{"result":"going_on","exp":0, "gold":0 }, "result":"ok", "tot_damage":5, "turn":1, }
```

### Abnormal Response

content-type: application/json

```
{ "result":"ng", "msg":"xxx"}
```

## | Error messages

msg	Description
Invalid session ID.	You are not logged in or the session ID is invalid.
Can't find course	There is a problem with the database connection, and course information could not be found.
Not found required param(s)	Required parameters are missing.
Invalid param(s)	The input parameters are invalid.
Can't read battle information.	Unable to load battle information.
Malformed JSON request.	Invalid JSON request.
Can't update battle information.	Battle information could not be updated.
The hmac was not correct.	Invalid HMAC.
The battle was already finished.	The battle has already ended.
Can't update player information and history.	Player information and history could not be updated.
Can't execute query.	Unable to execute the query.