

API Specification: Quiz Application

1. POST /register

- **Headers:** None
- **Parameters:** None
- **Request Body:**

Field	Type	Description	Example	Mandatory
name	string	User's name	"John Wick"	Yes
email	string	User's email address	"john@example.com"	Yes
username	string	User's username	"john_wick"	Yes
password	string	User's password	"secretpassword"	Yes

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: "Registration Successful. Welcome John"
 - **Error:**
 - Status Code: 400 Bad Request, 409 Conflict, 500 Internal Server Error
 - Body: (Error message)

2. POST /login

- **Headers:** None
- **Parameters:** None
- **Request Body:**

Field	Type	Description	Example	Mandatory
username	string	User's username	"john_doe"	Yes
password	string	User's password	"secretpassword"	Yes

- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: "access_token": <JWT Token>
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 500 Internal Server Error
 - Body: (Error message)

3. POST /logout

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:** None
- **Request Body:**

Field	Type	Description	Example	Mandatory
refresh_token	string	Refresh Token	NA	Yes

- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Success message indicating successful logout)
 - **Error:**
 - Status Code: 500 Internal Server Error
 - Body: (Error message)

4. GET /admins

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing a list of admin details)

Example:

```
[
  {
    "user_id": "A3cTnU",
    "name": "Mathew Murdock",
    "email": "matty@gmail.com",
    "registration_date": 2024-01-15
  },
  {
    "user_id": "A4zqNx",
    "name": "Wilson Fisk",
    "email": "fisk@gmail.com",
    "registration_date": 2023-04-01
  }
]
```

- **Error:**
 - Status Code: 401 Unauthorized, 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

5. **POST** /admins

- **Headers:**
 - Authorization: **<Bearer token>** (required)
- **Request Body:**

<i>Field</i>	<i>Type</i>	<i>Description</i>	<i>Example</i>	<i>Mandatory</i>
<i>name</i>	string	Admin's name	"Mathew Murdock"	Yes
<i>email</i>	string	Admin's email address	"matty@example.com"	Yes
<i>username</i>	string	Admin's username	"matty"	Yes

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: "Admin created successfully"
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 409 Conflict, 500 Internal Server Error
 - Body: (Error message)

6. **DELETE** /admins/{admin_id}

- **Headers:**
 - Authorization: **<Bearer token>** (required)
- **Parameters:**
 - admin_id: string (Path parameter, ID of the admin to delete)
- **Request Body:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: "Admin deleted successfully"
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 500 Internal Server Error
 - Body: (Error message)

7. GET /players

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing a list of player details)

Example:

```
[
  {
    "user_id": "P3cTnU",
    "name": "John Wick",
    "email": "john@gmail.com",
    "registration_date": 2024-01-15
  },
  {
    "user_id": "P4zqNx",
    "name": "Charlie Cox",
    "email": "charlie@gmail.com",
    "registration_date": 2024-01-01
  }
]
```

- **Error:**
 - Status Code: 401 Unauthorized, 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

8. DELETE /players/{player_id}

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - player_id: string (Path parameter, ID of the player to delete)
- **Request Body:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: "Player deleted successfully"
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 500 Internal Server Error
 - Body: (Error message)

9. GET /categories

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing a list of categories)

Example:

```
[
  {
    "category_id": "C3cTnU",
    "admin_id": "A3qZnR",
    "admin_username": "matty",
    "category_name": "REST API"
  },
  {
    "category_id": "A4zqNx",
    "admin_id": "A4zqNx",
    "admin_username": "fisk",
    "category_name": "Python"
  }
]
```

- **Error:**
 - Status Code: 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

10. POST /categories

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Request Body:**

Field	Type	Description	Example	Mandatory
name	string	Category name	"Science"	Yes

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: "Category Science created successfully"
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 409 Conflict, 500 Internal Server Error
 - Body: (Error message)

11. PUT /categories/{category_id}

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - category_id: string (Path parameter, ID of the category to update)
- **Request Body:**

<i>Field</i>	<i>Type</i>	<i>Description</i>	<i>Example</i>	<i>Mandatory</i>
<i>name</i>	string	Updated category name	"Updated Science"	Yes

- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing the updated category details)
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 500 Internal Server Error
 - Body: (Error message)

12. DELETE /categories/{category_id}

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - category_id: string (Path parameter, ID of the category to delete)
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (No content)
 - **Error:**
 - Status Code: 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

13. **POST** /categories/{category_id}/questions

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - category_id: string (Path parameter, ID of the category to add a question)
- **Request Body:**

<i>Field</i>	<i>Type</i>	<i>Description</i>	<i>Example</i>	<i>Mandatory</i>
<i>question</i>	string	New question text	"What is the capital of France?"	Yes
<i>type</i>	string	MCQ, One Word, t/f	"mcq"	Yes
<i>answer</i>	string	Correct answer	"Paris"	Yes
<i>other_options</i>	string	List of wrong options	["x", "y", "z"]	Yes

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: "Questions added successfully"
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 409 Conflict, 500 Internal Server Error
 - Body: (Error message)

14. GET /categories/questions?category_id={category_id}

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - category_id: string (Query parameter, ID of the category to retrieve questions for)
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing a list of questions for the specified category or list of questions across all categories)

Example:

```
{
  "quiz_data": [
    {
      "category_id": "C3cTnU",
      "category": "Science",
      "question_data": [
        {
          "question_id": "Qe4ZTL",
          "question_text": "Chemical symbol of water is?",
          "question_type": "ONE WORD",
          "options": {
            "answer": {
              "option_id": "Oe4ZTL",
              "text": "H2O"
            },
            "other_options": []
          }
        }
      ]
    },
    {
      "category_id": "C0cQnZ",
      "category": "Maths",
      "question_data": [
        {
          "question_id": "Qe4ZTL",
          "question_text": "Sum of angles of a triangle is?",
          "question_type": "ONE WORD",
          "options": {
            "answer": {
              "option_id": "Oe4CTL",
              "text": "180"
            },
            "other_options": []
          }
        }
      ]
    }
  ],
}
```



```

{
  "question_id": "Qe4ZTL",
  "question_text": "Which gas causes greenhouse effect?",
  "question_type": "MCQ",
  "options": {
    "answer": {
      "option_id": "Oe4ZTL",
      "text": "Carbon Dioxide"
    },
    "other_options": [
      {
        "option_id": "Ox43TL",
        "text": "Oxygen",
      },
      {
        "option_id": "Op0ZTL",
        "text": "Nitrogen",
      },
      {
        "option_id": "Oq1ZAL",
        "text": "Methane",
      }
    ]
  }
}

```

- **Error:**
 - Status Code: 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

15. POST /categories/questions

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Request Body:**

Field	Type	Description	Example	Mandatory
category	string	Category name	General Knowledge	Yes
question	string	New question text	"What is the capital of France?"	Yes
type	string	MCQ, One Word, t/f	mcq	Yes
answer	string	Correct answer	"Paris"	Yes
other_options	string	List of wrong options	["x", "y", "z"]	Yes

Example:

```
{
  "quiz_data": [
    {
      "category": "Science",
      "question_data": [
        {
          "question_text": "What is the chemical symbol for water?",
          "question_type": "one word",
          "options": {
            "answer": "H2O",
            "other_options": []
          }
        },
        {
          "question_text": "What is the chemical symbol for water?",
          "question_type": "t/f",
          "options": {
            "answer": "False",
            "other_options": []
          }
        }
      ]
    },
    {
      "category": "Maths",
      "question_data": [
        {
          "question_text": "What is the chemical symbol for water?",
          "question_type": "one word",
          "options": {
            "answer": "H2O",
            "other_options": []
          }
        },
        {
          "question_text": "Which gas is responsible for the Earth's
greenhouse effect?",
          "question_type": "mcq",
          "options": {
            "answer": "Carbon dioxide",
            "other_options": ["Oxygen", "Nitrogen", "Methane"]
          }
        }
      ]
    }
  ]
}
```

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: "Questions added successfully"

- **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 403 Forbidden, 409 Conflict, 500 Internal Server Error
 - Body: (Error message)

16. GET /quizzes?category_id={category_id}

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - category_id: string (Query parameter, ID of the category for the quiz)
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing question details for the specified category or random questions)

Example:

```
[
  {
    "question_id": "Q3cTnU",
    "question_text": "Chemical formula for water is?",
    "question_type": "ONE WORD",
    "options": {
      "answer": "H2O",
      "other_options": []
    }
  },
  {
    "question_id": "Q3cTnU",
    "question_text": "Which gas causes greenhouse effect?",
    "question_type": "MCQ",
    "options": {
      "answer": "Carbon dioxide",
      "other_options": ["Oxygen", "Nitrogen", "Methane"]
    }
  }
]
```

- **Error:**
 - Status Code: 401 Unauthorized, 500 Internal Server Error
 - Body: (Error message)

17. POST /quizzes/answers

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Request Body:**

Field	Type	Description	Example	Mandatory
question_id	string	ID of the question	"QdeSe3"	Yes
user_answer	string	user's response	"Paris"	Yes

- **Response:**
 - **Success:**
 - Status Code: 201 Created
 - Body: user_score: 90
 - **Error:**
 - Status Code: 400 Bad Request, 401 Unauthorized, 500 Internal Server Error
 - Body: (Error message)

18. GET /leaderboard

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:** None
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing leaderboard details)

Example:

```
[
  {
    "score_id": "S3cTnU",
    "player_id": "P3qZnR",
    "username": "john_wick",
    "max_score ": "90",
    "min_timestamp ": "2024-01-15 18:12:20"
  },
  {
    "score_id": "S3cTnU",
    "player_id": "P3qZnR",
    "username": "charlie_cox ",
    "max_score ": "80",
    "min_timestamp ": "2024-01-15 18:12:20"
  },
]
```

- **Error:**
 - Status Code: 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

19. GET /player/{player_id}/score

- **Headers:**
 - Authorization: <Bearer token> (required)
- **Parameters:**
 - player_id: string (Path parameter, ID of the player to retrieve the score)
- **Response:**
 - **Success:**
 - Status Code: 200 OK
 - Body: (Response containing the player's score details)

Example:

```
[
  {
    "score_id": "S3cTnU",
    "score ": "90",
    "timestamp ": "2024-01-15 18:12:20"
  },
  {
    "score_id": "S3cTnU",
    "score ": "80",
    "timestamp ": "2024-01-14 17:12:20"
  }
]
```

- **Error:**
 - Status Code: 401 Unauthorized, 404 Not Found, 500 Internal Server Error
 - Body: (Error message)

Status Codes:

Status Code	Description
200	OK
201	Created
400	Bad Request
401	Unauthorized
403	Forbidden
404	Not Found
409	Conflict
500	Internal Server Error