

Task Manager API Documentation

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1 Introduction

The Task Manager API provides a comprehensive system for managing tasks and users efficiently. This API allows users to create tasks, assign users to tasks, and retrieve information regarding task assignments. The primary goal of this project is to streamline task management processes and enhance team collaboration.

2 Base URL

The base URL for accessing the API is:

`http://127.0.0.1:8000/api/`

3 API Endpoints

3.0.1 1. Create a User

Endpoint: POST `/users/`

3.0.2 2. Create a Task

Endpoint: POST `/tasks/`

3.0.3 3. Assign Users to a Task

Endpoint: POST `/tasks/<taskid> /assign-users/`

3.0.4 4. Check Users Assigned to a Task

Endpoint: GET `/tasks/<taskid> /users/`

3.0.5 5. Check Tasks Assigned to a Specific User

Endpoint: GET `/users/<userid> /tasks/`

3.1 1. Create a User

Endpoint: POST /users/

3.1.1 Sample Request

The following is a sample request to create a new user:

```
{
  "name": "example5",
  "email": "example5@example.com",
  "mobile": "1122324466"
}
```

3.1.2 Sample Response

Upon successfully creating the user, the API will respond with the following:

```
{
  "message": "User created successfully",
  "user": {
    "id": 5,
    "name": "example5",
    "email": "example5@example.com",
    "mobile": "1122324466",
    "created_at": "2024-10-22T00:18:56.976091Z"
  }
}
```

3.1.3 Sample Users

Here are five sample users that can be created using the above API:

1. User 1

```
{
  "name": "example1",
  "email": "example1@example.com",
  "mobile": "1122334455"
}
```

Response:

```
{
  "message": "User created successfully",
  "user": {
    "id": 1,
    "name": "example1",
    "email": "example1@example.com",
  }
}
```

```
    "mobile": "1122334455",
    "created_at": "2024-10-22T00:18:00.000000Z"
  }
}
```

2. User 2

```
{
  "name": "example2",
  "email": "example2@example.com",
  "mobile": "1122334456"
}
```

Response:

```
{
  "message": "User created successfully",
  "user": {
    "id": 2,
    "name": "example2",
    "email": "example2@example.com",
    "mobile": "1122334456",
    "created_at": "2024-10-22T00:18:10.000000Z"
  }
}
```

3. User 3

```
{
  "name": "example3",
  "email": "example3@example.com",
  "mobile": "1122334457"
}
```

Response:

```
{
  "message": "User created successfully",
  "user": {
    "id": 3,
    "name": "example3",
    "email": "example3@example.com",
    "mobile": "1122334457",
    "created_at": "2024-10-22T00:18:20.000000Z"
  }
}
```

4. User 4

```
{
  "name": "example4",
  "email": "example4@example.com",
  "mobile": "1122334458"
}

Response:

{
  "message": "User created successfully",
  "user": {
    "id": 4,
    "name": "example4",
    "email": "example4@example.com",
    "mobile": "1122334458",
    "created_at": "2024-10-22T00:18:30.000000Z"
  }
}
```

5. User 5

```
{
  "name": "example5",
  "email": "example5@example.com",
  "mobile": "1122324466"
}

Response:

{
  "message": "User created successfully",
  "user": {
    "id": 5,
    "name": "example5",
    "email": "example5@example.com",
    "mobile": "1122324466",
    "created_at": "2024-10-22T00:18:56.976091Z"
  }
}
```

3.2 2. Create a Task

Endpoint: POST /tasks/

3.2.1 Sample Request

The following is a sample request to create a new task:

```
{
  "name": "Task 5",
  "description": "This is a sample task 5.",
  "task_type": "Commentary"
}
```

3.2.2 Sample Response

Upon successfully creating the task, the API will respond with the following:

```
{
  "id": 5,
  "name": "Task 5",
  "description": "This is a sample task 5.",
  "created_at": "2024-10-22T00:51:26.220398Z",
  "updated_at": "2024-10-22T00:51:26.220423Z",
  "status": "pending",
  "task_type": "Commentary"
}
```

3.2.3 Sample Tasks

Here are five sample tasks that can be created using the above API:

1. Task 1

```
{
  "name": "Task 1",
  "description": "This is a sample task 1.",
  "task_type": "General"
}
```

Response:

```
{
  "id": 1,
  "name": "Task 1",
  "description": "This is a sample task 1.",
  "created_at": "2024-10-22T00:50:00.000000Z",
  "updated_at": "2024-10-22T00:50:00.000000Z",
  "status": "pending",
  "task_type": "General"
}
```

2. Task 2

```
{
  "name": "Task 2",
```

```
    "description": "This is a sample task 2.",
    "task_type": "Development"
}
```

Response:

```
{
  "id": 2,
  "name": "Task 2",
  "description": "This is a sample task 2.",
  "created_at": "2024-10-22T00:50:10.000000Z",
  "updated_at": "2024-10-22T00:50:10.000000Z",
  "status": "pending",
  "task_type": "Development"
}
```

3. Task 3

```
{
  "name": "Task 3",
  "description": "This is a sample task 3.",
  "task_type": "Design"
}
```

Response:

```
{
  "id": 3,
  "name": "Task 3",
  "description": "This is a sample task 3.",
  "created_at": "2024-10-22T00:50:20.000000Z",
  "updated_at": "2024-10-22T00:50:20.000000Z",
  "status": "pending",
  "task_type": "Design"
}
```

4. Task 4

```
{
  "name": "Task 4",
  "description": "This is a sample task 4.",
  "task_type": "Testing"
}
```

Response:

```
{
  "id": 4,
  "name": "Task 4",
```

```

    "description": "This is a sample task 4.",
    "created_at": "2024-10-22T00:50:30.000000Z",
    "updated_at": "2024-10-22T00:50:30.000000Z",
    "status": "pending",
    "task_type": "Testing"
  }

```

5. Task 5

```

{
  "name": "Task 5",
  "description": "This is a sample task 5.",
  "task_type": "Commentary"
}

```

Response:

```

{
  "id": 5,
  "name": "Task 5",
  "description": "This is a sample task 5.",
  "created_at": "2024-10-22T00:51:26.220398Z",
  "updated_at": "2024-10-22T00:51:26.220423Z",
  "status": "pending",
  "task_type": "Commentary"
}

```

3.3 3. Assign Users to a Task

Endpoint: `POST /tasks/taskid/assign/`

3.3.1 Sample Request

To assign users to a task, you can use the following sample request:

```

{
  "user_ids": [1, 2, 3, 4, 5],
  "task_id": "5"
}

```

3.3.2 Sample Response

Upon successfully assigning users to the task, the API will respond with the following message:

```

{
  "message": "Users assigned to the task successfully"
}

```

3.3.3 User Assignments to Tasks

Here are the specific user assignments for each task:

- Task with ID 1 will have users: {1, 2, 3}

```
{
  "user_ids": [1, 2, 3],
  "task_id": "1"
}
```

Response:

```
{
  "message": "Users assigned to the task successfully"
}
```

- Task with ID 2 will have users: {4, 5}

```
{
  "user_ids": [4, 5],
  "task_id": "2"
}
```

Response:

```
{
  "message": "Users assigned to the task successfully"
}
```

- Task with ID 3 will have users: {2, 3}

```
{
  "user_ids": [2, 3],
  "task_id": "3"
}
```

Response:

```
{
  "message": "Users assigned to the task successfully"
}
```

- Task with ID 4 will have users: {1, 4, 5}

```
{
  "user_ids": [1, 4, 5],
  "task_id": "4"
}
```

Response:


```
{
  "message": "Users assigned to the task successfully"
}
```

- Task with ID 5 will have users: {1, 2, 3, 4, 5}

```
{
  "user_ids": [1, 2, 3, 4, 5],
  "task_id": "5"
}
```

Response:

```
{
  "message": "Users assigned to the task successfully"
}
```

3.4 4. Check Users Assigned to a Task

Endpoint: GET /tasks/<task_id>/users/

To retrieve the list of users assigned to a specific task, send a GET request to the following URL:

http://127.0.0.1:8000/api/tasks/<task_id>/users/

3.4.1 Sample Responses

Task with ID 1 (Assigned Users: {1, 2, 3}):

```
[
  {
    "id": 1,
    "name": "example1",
    "email": "example1@example.com",
    "mobile": "1122334454",
    "created_at": "2024-10-22T00:09:30.454895Z"
  },
  {
    "id": 2,
    "name": "example2",
    "email": "example2@example.com",
    "mobile": "1122334455",
    "created_at": "2024-10-22T00:09:41.454895Z"
  },
  {
    "id": 3,
    "name": "example3",
    "email": "example3@example.com",
  }
]
```

```

    "mobile": "1122334456",
    "created_at": "2024-10-22T00:09:56.747981Z"
  }
]

```

Task with ID 2 (Assigned Users: {4, 5}):

```

[
  {
    "id": 4,
    "name": "example4",
    "email": "example4@example.com",
    "mobile": "1122334457",
    "created_at": "2024-10-22T00:10:01.000000Z"
  },
  {
    "id": 5,
    "name": "example5",
    "email": "example5@example.com",
    "mobile": "1122334458",
    "created_at": "2024-10-22T00:10:10.000000Z"
  }
]

```

Task with ID 3 (Assigned Users: {2, 3}):

```

[
  {
    "id": 2,
    "name": "example2",
    "email": "example2@example.com",
    "mobile": "1122334455",
    "created_at": "2024-10-22T00:09:41.454895Z"
  },
  {
    "id": 3,
    "name": "example3",
    "email": "example3@example.com",
    "mobile": "1122334456",
    "created_at": "2024-10-22T00:09:56.747981Z"
  }
]

```

Task with ID 4 (Assigned Users: {1, 4, 5}):

```

[
  {

```

```

    "id": 1,
    "name": "example1",
    "email": "example1@example.com",
    "mobile": "1122334454",
    "created_at": "2024-10-22T00:09:30.454895Z"
  },
  {
    "id": 4,
    "name": "example4",
    "email": "example4@example.com",
    "mobile": "1122334457",
    "created_at": "2024-10-22T00:10:01.000000Z"
  },
  {
    "id": 5,
    "name": "example5",
    "email": "example5@example.com",
    "mobile": "1122334458",
    "created_at": "2024-10-22T00:10:10.000000Z"
  }
]

```

Task with ID 5 (Assigned Users: {1, 2, 3, 4, 5}):

```

[
  {
    "id": 1,
    "name": "example1",
    "email": "example1@example.com",
    "mobile": "1122334454",
    "created_at": "2024-10-22T00:09:30.454895Z"
  },
  {
    "id": 2,
    "name": "example2",
    "email": "example2@example.com",
    "mobile": "1122334455",
    "created_at": "2024-10-22T00:09:41.454895Z"
  },
  {
    "id": 3,
    "name": "example3",
    "email": "example3@example.com",
    "mobile": "1122334456",
    "created_at": "2024-10-22T00:09:56.747981Z"
  },
]

```

```

{
  "id": 4,
  "name": "example4",
  "email": "example4@example.com",
  "mobile": "1122334457",
  "created_at": "2024-10-22T00:10:01.000000Z"
},
{
  "id": 5,
  "name": "example5",
  "email": "example5@example.com",
  "mobile": "1122334458",
  "created_at": "2024-10-22T00:10:10.000000Z"
}
]

```

3.5 5. Check Tasks Assigned to a Specific User

Endpoint: GET /users/<user_id>/tasks/

To retrieve a list of tasks assigned to a specific user, send a GET request to the following URL:

http://127.0.0.1:8000/api/users/<user_id>/tasks/

3.5.1 Sample Responses

User with ID 1 (Assigned Tasks: {1, 4, 5}):

```

[
  {
    "id": 1,
    "name": "Task 1",
    "description": "This is a sample task 1.",
    "created_at": "2024-10-22T00:23:10.215401Z",
    "updated_at": "2024-10-22T01:01:30.459202Z",
    "status": "pending",
    "task_type": "General"
  },
  {
    "id": 4,
    "name": "Task 4",
    "description": "This is a sample task 4.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Development"
  },
]

```

```

    {
      "id": 5,
      "name": "Task 5",
      "description": "This is a sample task 5.",
      "created_at": "2024-10-22T00:51:26.220398Z",
      "updated_at": "2024-10-22T01:02:39.763135Z",
      "status": "pending",
      "task_type": "Commentary"
    }
  ]

```

User with ID 2 (Assigned Tasks: {1, 3, 5}):

```

[
  {
    "id": 1,
    "name": "Task 1",
    "description": "This is a sample task 1.",
    "created_at": "2024-10-22T00:23:10.215401Z",
    "updated_at": "2024-10-22T01:01:30.459202Z",
    "status": "pending",
    "task_type": "General"
  },
  {
    "id": 3,
    "name": "Task 3",
    "description": "This is a sample task 3.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Sports"
  },
  {
    "id": 5,
    "name": "Task 5",
    "description": "This is a sample task 5.",
    "created_at": "2024-10-22T00:51:26.220398Z",
    "updated_at": "2024-10-22T01:02:39.763135Z",
    "status": "pending",
    "task_type": "Commentary"
  }
]

```

User with ID 3 (Assigned Tasks: {1, 3, 5}):

```

[
  {

```

```

    "id": 1,
    "name": "Task 1",
    "description": "This is a sample task 1.",
    "created_at": "2024-10-22T00:23:10.215401Z",
    "updated_at": "2024-10-22T01:01:30.459202Z",
    "status": "pending",
    "task_type": "General"
  },
  {
    "id": 3,
    "name": "Task 3",
    "description": "This is a sample task 3.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Sports"
  },
  {
    "id": 5,
    "name": "Task 5",
    "description": "This is a sample task 5.",
    "created_at": "2024-10-22T00:51:26.220398Z",
    "updated_at": "2024-10-22T01:02:39.763135Z",
    "status": "pending",
    "task_type": "Commentary"
  }
]

```

User with ID 4 (Assigned Tasks: {2, 4, 5}):

```

[
  {
    "id": 2,
    "name": "Task 2",
    "description": "This is a sample task 2.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Development"
  },
  {
    "id": 4,
    "name": "Task 4",
    "description": "This is a sample task 4.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
  }
]

```

```

    "status": "pending",
    "task_type": "Development"
  },
  {
    "id": 5,
    "name": "Task 5",
    "description": "This is a sample task 5.",
    "created_at": "2024-10-22T00:51:26.220398Z",
    "updated_at": "2024-10-22T01:02:39.763135Z",
    "status": "pending",
    "task_type": "Commentary"
  }
]

User with ID 5 (Assigned Tasks: {1, 2, 3, 4, 5}):

[
  {
    "id": 1,
    "name": "Task 1",
    "description": "This is a sample task 1.",
    "created_at": "2024-10-22T00:23:10.215401Z",
    "updated_at": "2024-10-22T01:01:30.459202Z",
    "status": "pending",
    "task_type": "General"
  },
  {
    "id": 2,
    "name": "Task 2",
    "description": "This is a sample task 2.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Development"
  },
  {
    "id": 3,
    "name": "Task 3",
    "description": "This is a sample task 3.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Sports"
  },
  {
    "id": 4,

```

```
    "name": "Task 4",
    "description": "This is a sample task 4.",
    "created_at": "2024-10-22T00:50:59.737395Z",
    "updated_at": "2024-10-22T01:02:12.132531Z",
    "status": "pending",
    "task_type": "Development"
  },
  {
    "id": 5,
    "name": "Task 5",
    "description": "This is a sample task 5.",
    "created_at": "2024-10-22T00:51:26.220398Z",
    "updated_at": "2024-10-22T01:02:39.763135Z",
    "status": "pending",
    "task_type": "Commentary"
  }
]
```