

CAVITE STATE UNIVERSITY
Imus Campus
Cavite Civic Center Palico IV, Imus, Cavite
(046) 471-66-07 / (046) 471-67-70 / (046) 686- 23-49
www.cvsu.edu.ph

DEPARTMENT OF COMPUTER STUDIES
ITEC 116 – IT ELECTIVE 4 (SYSTEM INTEGRATION AND ARCHITECTURE 2)

ACTIVITY NO. 1 TO-DO LIST API + UI

Title of Activity

ConVINCE Task Manager

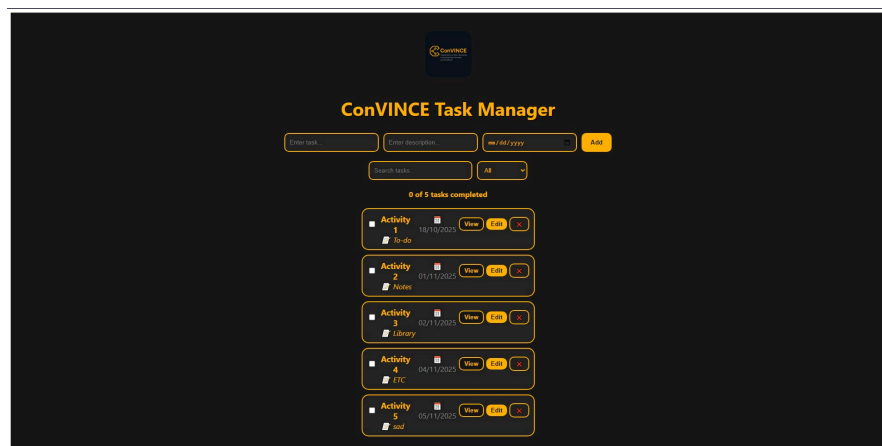
Short Description(What the app does)

The **ConVINCE Task Manager** is a full-stack To-Do List web application that helps users organize and track their daily tasks. It allows users to **add, view, edit, delete, search, and filter tasks** with deadlines and completion tracking. The **frontend** is developed using **React.js (Vite)**, while the **backend** is powered by **NestJS**, providing a structured **REST API** for **task management** and integrated **Swagger documentation** for **API visualization**.

Screenshot(s) of working system (UI and API example)

User Interface (Frontend):

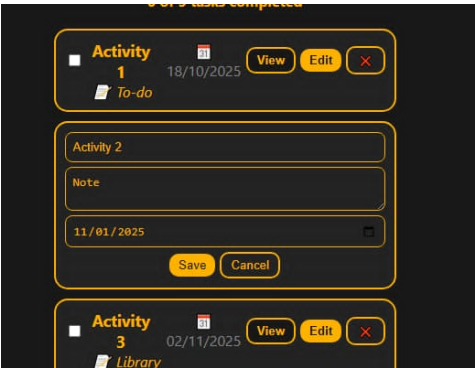
- Task List (Main UI)



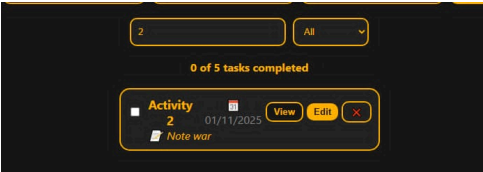
- Task View (Modal Popup)



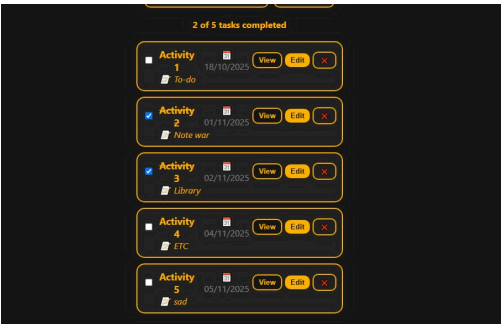
- Task Edit Form



- Search and Filter Section



- Progress Tracker



API Backend:

- **API Endpoint (GET /api/tasks)**

GET

/tasks/{id} Get a specific task by ID

Parameters

Name	Description
id *required string (path)	Task ID

Execute

Clear

Responses

Curl

```
curl -X GET -\
  'http://localhost:3001/tasks/1' -\
  -H 'accept: */*'
```

Request URL

```
http://localhost:3001/tasks/1
```

Server response

Code

Details

200

Response headers

```
access-control-allow-credentials: true
connection: keep-alive
content-length: 8
date: Sat, 18 Oct 2025 01:39:37 GMT
keep-alive: [timeout]
vary: Origin
x-powered-by: Express
```

Responses

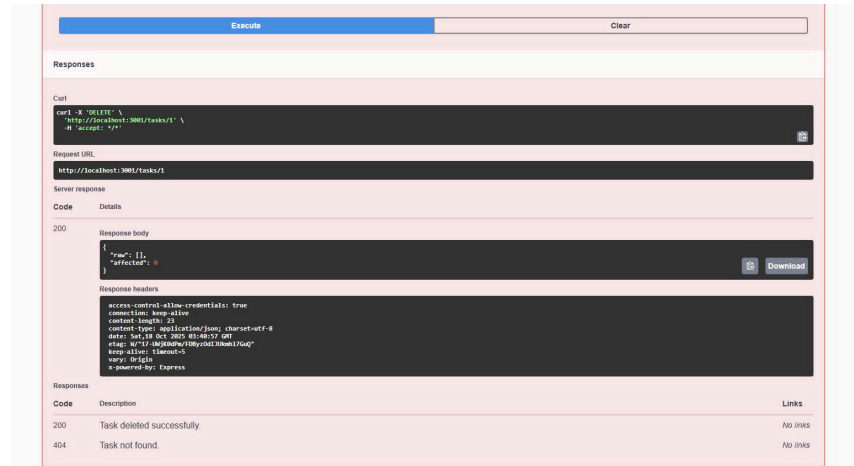
Code	Description	Links
200	Returns the task with the specified ID.	No links
404	Task not found.	No links

Request URL	
http://localhost:3001/tasks	
Server response	
Code	Details
200	<div><div>Response body</div><pre>[{"id": 1, "title": "Activity 1", "description": "Task", "completed": false, "deadline": "2025-08-28"}, {"id": 2, "title": "Activity 2", "description": "Side bar", "completed": true, "deadline": "2025-11-01"}, {"id": 3, "title": "Activity 3", "description": "Library", "completed": true, "deadline": "2025-11-02"}, {"id": 4, "title": "Activity 4", "description": "TV", "completed": false, "deadline": "2025-11-04"}]</pre><div>Download</div></div> <div><div>Response headers</div><pre>access-control-allow-credentials: true content-type: application/json content-length: 426 content-type: application/json; charset=utf-8 date: Sat, 18 Oct 2024 01:16:36 GMT etag: W/"20a-b6b0b18b0c10c0ff78ac8309" vary: Origin x-powered-by: Express</pre></div>
Responses	
Code	Description
200	Returns all tasks
No links	

- **PATCH /tasks/{id}**

		<div> <div>Execute</div> <div>Clear</div> </div>
Responses		
<div> <div>Curl</div> <div> <pre>curl -X "PATCH" \ http://localhost:3001/tasks/1 \ -H "accept: */*" \ -H "content-type: application/json" \ -d {} \ --compressed; true</pre> </div> </div>		
<div> <div>Request URL</div> <div>http://localhost:3001/tasks/1</div> </div>		
<div> <div>Server response</div> <div> <div>Code</div> <div>Details</div> </div> </div>		
<div> <div>200</div> <div> <div>Response headers</div> <div> <pre>access-control-allow-credentials: true connection: keep-alive content-length: 0 date: Sat, 18 Oct 2025 03:48:07 GMT keep-alive: timeout=5 vary: Origin x-powered-by: Express</pre> </div> </div> </div>		
<div> <div>Responses</div> <div> <div>Code</div> <div>Description</div> <div>Links</div> </div> </div>		
<div> <div>200</div> <div>Task updated successfully</div> <div>No links</div> </div>		

- **DELETE /tasks/{id}**



Instruction on how to run the project

Requirements

- Node.js
- npm (comes with Node.js)
- Web Browser (Google Chrome, Edge, Firefox, etc.)
- Visual Studio Code
- NestJS
- React.js (Vite)
- TypeORM
- Swagger UI
- Git / GitHub

Steps to run the Project

1. Clone or download the project from GitHub.
2. Open the project folder in Visual Studio Code. (VScode)
3. Open a terminal and go to the backend folder:

```
cd backend
```

```
npm install
```

```
npm run start:dev
```

→ **Runs the backend (NestJS) at <http://localhost:3000/>**

→ **Swagger UI: <http://localhost:3000/api>**

4. Open another terminal and go to the frontend folder:

```
cd frontend
```

```
npm install
```

```
npm run dev
```

→ **Runs the frontend (React + Vite) at <http://localhost:5173/>**

5. Open the browser and go to the frontend URL to use the system.