



ThreadSpace

ADVANCED WEB TECHNOLOGIES - PROJECT OVERVIEW

IDEA, TECH STACK, FUNCTIONALITIES OVERVIEW

THE THREADSPACE PROJECT

What is it :

- A web-based discussion platform inspired by Reddit. Forum on which any one can participate in specific topic-centred discussions

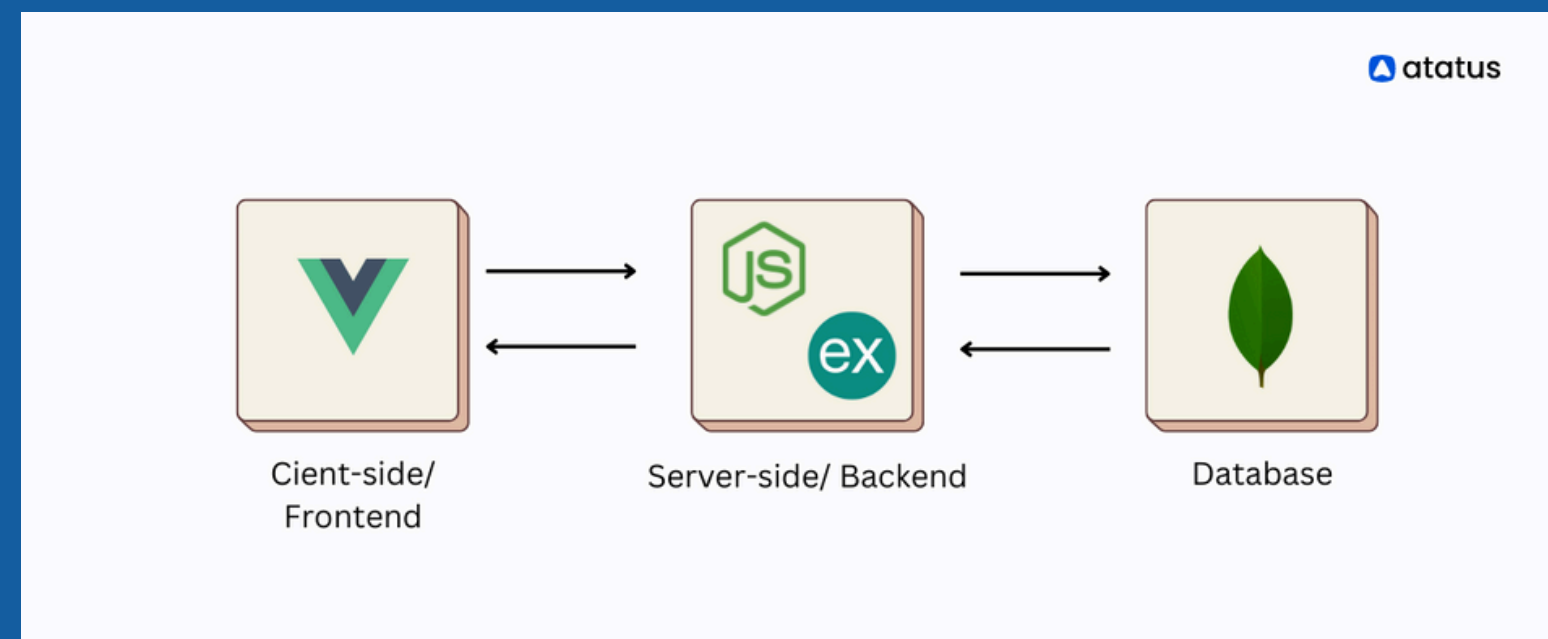
What it features:

- Topic-based communities (spaces)
- Ability of space creation, viewing and participation
- Ability of adding, editing and deleting posts on any space user participates in
- Reactions, upvotes and downvotes for each post and comment
- Comments addition with nesting and deletion
- Moderation ability for space creators, including user and post moderation
- Strong authentication and session detection capabilities

THE TECHNOLOGY STACK – BACKEND

Technologies and frameworks used

- Node.js v18 – JavaScript runtime
- Express.js v5 – Web application framework for handling REST API routes
- MongoDB – NoSQL database
- Mongoose v8 – MongoDB object modeling (ODM) for MongoDB integration



THE TECHNOLOGY STACK - FRONTEND

Technologies and frameworks used

- Vue.js 3.5.15 – Latest version of Vue 3, framework for building reactive UI components
- Axios 1.9.0 – HTTP communication with the backend API
- localStorage – Used to track session-based identity

THE TECHNOLOGY STACK - AUTHENTICATION

Technologies and frameworks used

- JWT (JSON Web Tokens) – Token-based authentication
- express-jwt – JWT middleware for Express
- Google OAuth 2.0 by Auth0 – Third-party authentication with persistent login capability
- CORS – Cross-Origin Resource Sharing

THE TECHNOLOGY STACK - DEVELOPMENT

Technologies and frameworks used

- Nodemon – Auto-restarting for Node.js
- npm – Package manager
- Git – Version control

DATABASE RECORDS

Crucial schemas

- User schema – (username, credentials, authProvider, sessionId, spaces[], posts[])
- Space schema – (name, description, members[])
- Post schema – (title, body, imageUrl, authorId, spaceId, votes[(userId, type)], comments[], createdAt)
- Comment schema – (postId, authorId, body, parent, createdAt, votes[(userId, type)])

CODE STRUCTURE

Backend

```

  ThreadSpace-web-ap...
  backend
  middleware
  JS auth.js
  modelsdb
  JS Comment.js
  JS Moderation.js
  JS Post.js
  JS Space.js
  JS User.js
  > node_modules
  routes
  JS auth.js
  JS Comment.js
  JS Post.js
  JS Space.js
  JS User.js
  .env
  JS index.js
  package-lock.json
  package.json

```

Frontend

```

  frontend
  .vscode
  {} extensions.json
  > node_modules
  public
  vite.svg
  src
  assets
  vue.svg
  components
  scripts
  JS PostFeed.js
  styles
  # feed.css
  # login.css
  # register.css
  AuthCallback.vue
  HelloWorld.vue
  LoginForm.vue
  PostFeed.vue
  RegisterForm.vue
  App.vue
  JS main.js
  JS router.js
  # style.css
  .env
  .gitignore
  index.html
  {} package-lock.json
  {} package.json
  README.md
  vite.config.js
  > node_modules
  {} package-lock.json
  {} package.json

```


FUNCTIONALITIES OVERVIEW

AUTHENTICATION




ThreadSpace

Login

LOGIN WITH EMAIL

OR

 LOGIN WITH GOOGLE

Don't have an account? [Register](#)

Applications

+ Create Application

Setup a mobile, web or IoT application to use Auth0 for Authentication. [Show more](#)



Default App
Generic

Client ID: uSMsZjJPwZBsunkGHvDpdgv7Q8X9cC4p



ThreadSpace
Single Page Applications


Client ID: pPvBYy9jaTGjQ6YN5JspJxx0FaKN4REI



ThreadSpace API (Test Application)
Machine to Machine

Client ID: k9jduveLUJc2tsBBCYXdwWoHJqUZPqed



 Zaloguj się przez Google

Wybierz konto

by przejść do aplikacji auth0.com

0

Olaf Niedzwadek
olaffnn@gmail.com

0

276261@student.pwr.edu.pl

@

Użyj innego konta

polski



Pomoc

Prywatność

Warunki



ThreadSpace

Register

REGISTER

Already registered? [Login here](#)

MAIN UI LAYOUT

 276261

 ThreadSpace

Log Out

Your threads

ololo

space20

Search for new threads

Create Space

See your posts

Your daily ThreadSpace Feed

post

in **space20** by 276261

June 26, 2025 at 01:57 AM

SSSSS



0



0

Show Comments

SPACE FEED LAYOUT

 276261

 ThreadSpace

Log Out

Your threads

ololo

space20

space20

new space

Created by: 276261 Members: 2 Created on: June 25, 2025 at 01:26 PM

Create New Post

Inspect Users

← Back to Feed

Posts in space20

post

by 276261

June 26, 2025 at 01:57 AM

SSSSS



0



0

Delete

Show Comments

papapap

by olaffnn_1750603064766

June 25, 2025 at 01:29 PM

spspps



0



0

Delete

space20

← Back to Feed

new space

Created by: 276261 Members: 2 Created on: June 25, 2025 at 01:26 PM

Create New Post

Inspect Users

Space Members (2)

276261

Creator

olaffnn_1750603064766

Remove

Posts in space20

post

by 276261

sssss



0



0

Delete

Show Comments

June 26, 2025 at 01:57 AM

papapap

by olaffnn_1750603064766

spspps

June 25, 2025 at 01:29 PM



0



0

Delete

new space

Created by: 276261 Members: 2 Created on: June 25, 2025 at 01:26 PM

Cancel Post

Inspect Users

Create a New Post in space20

Title

Enter post title

Body (Text)

Share your thoughts...

Image URL (Optional)

Paste image URL here

Create Post

Cancel

Comments

Add a comment...

Add Comment

276261

June 26, 2025 at 02:19 AM

ggg



0



0

Delete

Reply

276261

June 26, 2025 at 02:19 AM

ff



0



0

Delete

Reply

276261

June 26, 2025 at 02:19 AM

ffff



0



0

Delete

123

by user1

June 14, 2025 at 05:06 PM

1234



👍 1

💡 1

Show Comments

Create New Space

Space Name

Enter space name

Description

Describe your space...

Create Space

Cancel

Your threads

ololo

space20

Back to Feed

Create Space

See your posts

Find New Spaces to Join

sp|



Available Spaces (6)

space20

new space

Created by 276261 June 25, 2025 at 01:26 PM

2 members

View

Join Space

olaf space

12 space

Created by olaffnn_1750603064766 June 22, 2025 at 10:49 PM

1 members

View

Join Space

new space

ssss

Created by user10 June 22, 2025 at 09:04 PM

3 members

View

Join Space

myspace

moje pole

Created by user11 June 19, 2025 at 10:26 PM

1 members

View

Join Space

space4

ddjdjdj

1 members

View

Join Space

← Back to Feed

Your Posts

post

in **space20** by 276261

June 26, 2025 at 02:19 AM

fff



0



0

Edit

Delete

Show Comments

post

in **ololo** by 276261

June 25, 2025 at 01:24 PM

odoodod



Edit Your Post

Post Body

ffff

Image URL (Optional)

Save Changes

Cancel

THANK YOU FOR YOUR ATTENTION