Learnato Hackathon — *Discussion Forum Microservice*

Theme

"Empower learning through conversation."
Build a browser-based forum where learners and instructors can post questions, share insights, and reply in real time — designed as a microservice ready to plug into the Learnato ecosystem.

Objective

Create a **Discussion Forum Microservice** using **Node.js**, **React.js**, and **Tailwind CSS**, where:

- Users can post questions and replies.
- Each post can be upvoted.
- The interface updates dynamically.
- Everything runs locally or in the cloud
- Dockerize the deployment

You're free to add creative flair — analytics, search, or AI suggestions — but the core must remain fast, functional, and clean.

Tech Stack

Layer	Technology
Frontend	React.js, Tailwind CSS
Backend	Node.js + Express
Database	PostgreSQL / MongoDB / In-memory Array
Real-time (optional)	Socket.io
Deployment (optional)	Cloud Run / Render / Vercel

Core Features (MVP Scope)

Feature	Description
Create Post	Add a new question or topic (title + content).
List Posts	View all posts sorted by votes or date.
View Post	See post details and its replies.
Add Reply	Add a reply beneath a post.
Upvote Post	Increment vote count for a post.
Responsive UI	Works smoothly on desktop and mobile.

Stretch Goals (Bonus)

- **Live updates:** Broadcast new posts/replies instantly using WebSocket.
- **Search bar:** Filter posts by keyword.
- **Mark as Answered:** Instructor marks resolved questions.
- **AI assistant:** Suggest similar questions or summarize discussion.
- **Authentication:** Mock user login or Google OAuth.

API Design (Suggested)

`POST /posts` → Create post
`GET /posts` → Get all posts
`GET /posts/:id` → Get single post with replies
`POST /posts/:id/reply` → Add reply
`POST /posts/:id/upvote` → Upvote

Evaluation Criteria

Category	Description	Weight
Architecture	Modular, clean backend & clear API routes	25%
UI/UX Design	Responsive, intuitive, visually balanced	25%
Functionality	All core features working	30%
Innovation	Stretch goals, AI or creative add-ons	10%
Documentation & Demo	Clear README, Deployed URL	10%

Deliverables

- GitHub repository with frontend + backend code
- README with setup steps
- Dockerfile to containerize both Nodejs and ReactJs app
- Deployed link

Inspiration Example

```
[+ New Post]

Q: How do I deploy Node.js on Cloud Run?
Votes: 5 | Replies: 3 | Posted by: Rohan

→ Click to view replies
-------------------------------------------
Reply 1: Use gcloud CLI with region flag
Reply 2: Enable Cloud Build first!
-------------------------------------------
[Add Reply] [Upvote]
```