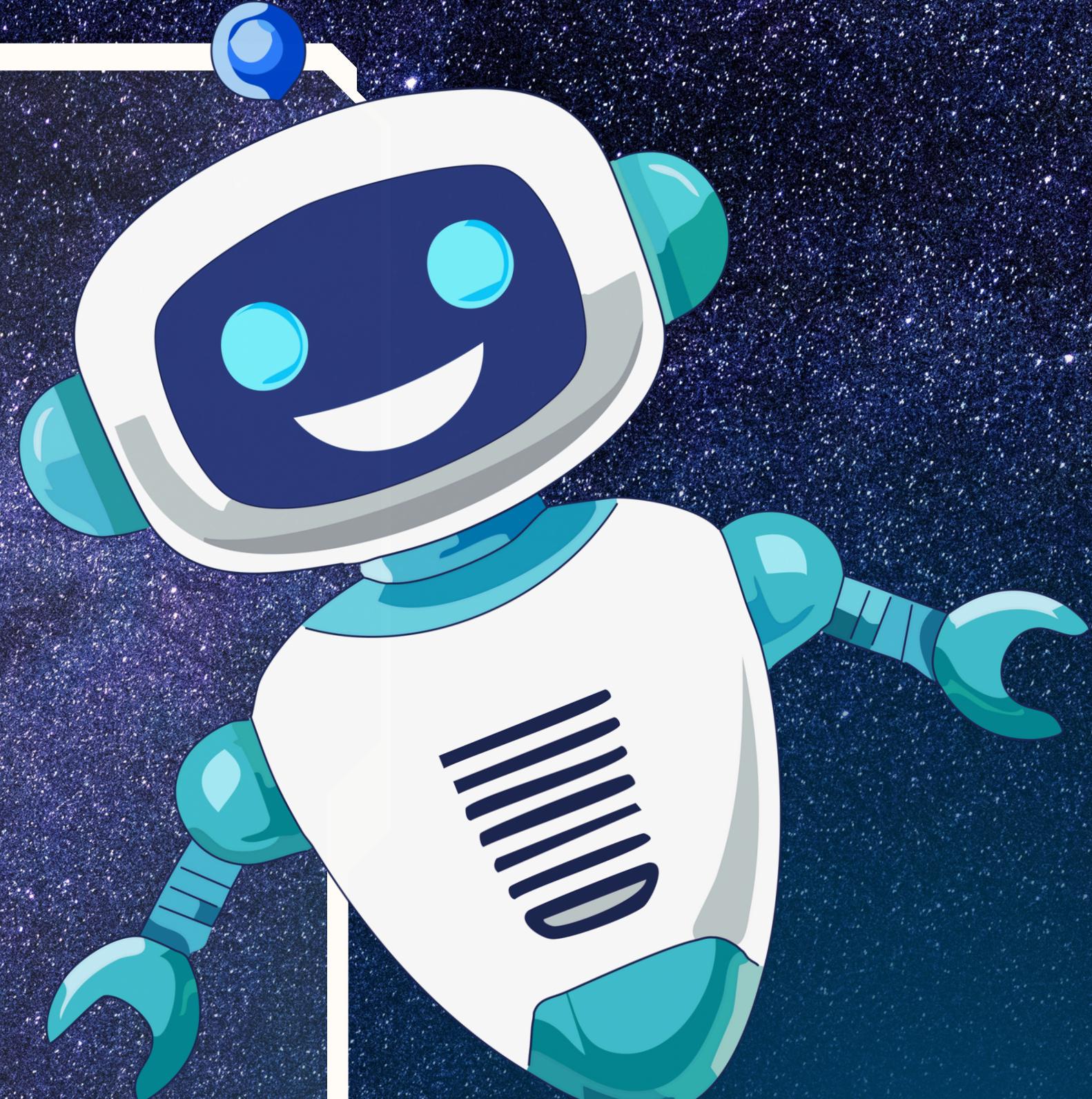


Turners AI Insurance Chatbot

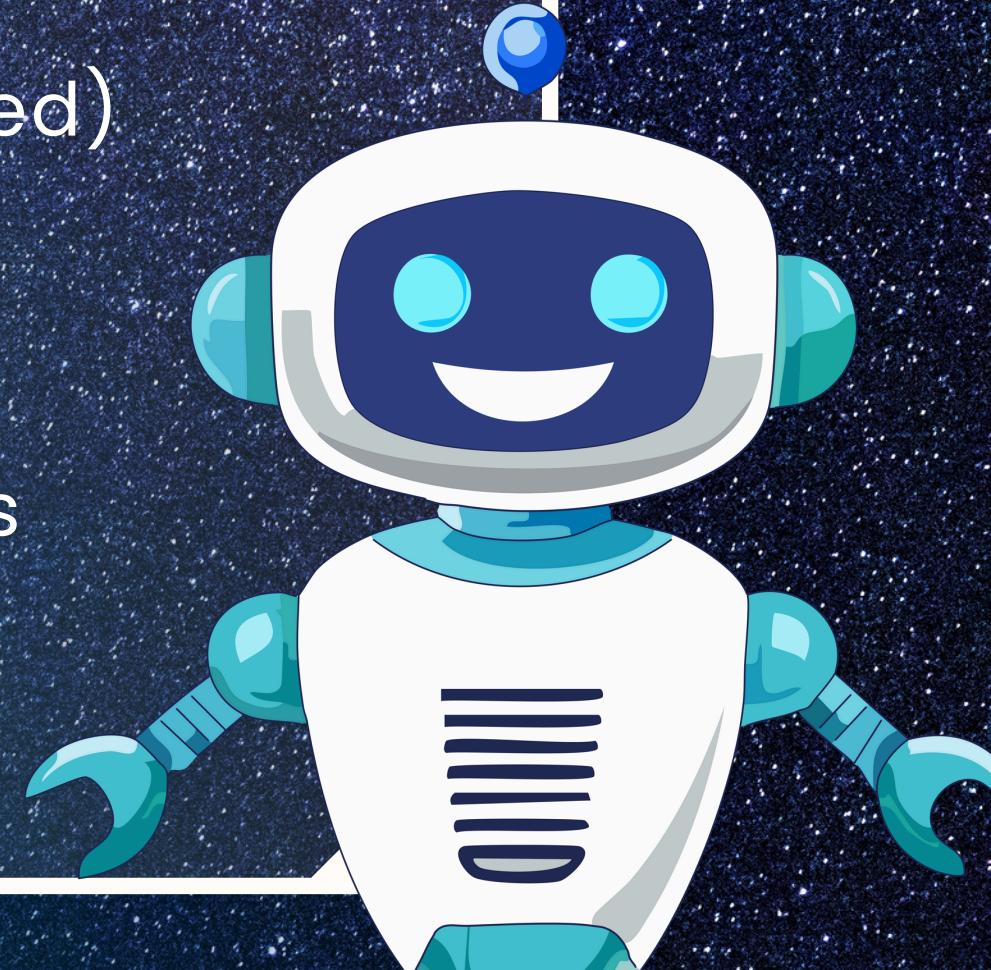
www.reallygreatsite.com



Project Goal

Create an interactive insurance recommendation app
using AI
The app must:

- Chat with the user
- Ask personalised questions (not hardcoded)
- Follow business rules
- Recommend one of Turners' three policies
- Run fully in Docker containers



Jira & Stand-up

Spaces
Mission 4 - Insurance Recommendation App

Summary Timeline Board Calendar List Forms Goals More 5

Search board AP Filter

TO DO 4

- Task 4. Containerise the Application M4IRA-4
- Task 5. Provide Feedback to UX Designers M4IRA-9
- Task 6. Present at Show and Tell - Using Story Telling Techniques M4IRA-10
- Task 7. Submit your work M4IRA-11

IN PROGRESS 2

- Task 2. Daily Standup M4IRA-2
- Task 3. Create an Insurance Recommendation Application using Generative AI M4IRA-3

DONE 1 ✓

- Task 1. Use Jira to Manage Individual Tasks M4IRA-1

+ Create

04:41

Dialpad Hold Transfer Chat People View Apps More Camera Mic Share Leave

Arjan Petera

Spaces
Mission 4 - Insurance Recommendation App

Summary Timeline Board Calendar List Forms Goals More 5

Search board AP Filter

TO DO 4

- Task 4. Containerise the Application M4IRA-4
- Task 5. Provide Feedback to UX Designers M4IRA-9
- Task 6. Present at Show and Tell - Using Story Telling Techniques M4IRA-10
- Task 7. Submit your work M4IRA-11

IN PROGRESS 2

- Task 2. Daily Standup M4IRA-2
- Task 3. Create an Insurance Recommendation Application using Generative AI M4IRA-3

DONE 1 ✓

- Task 1. Use Jira to Manage Individual Tasks M4IRA-1

+ Create

Spaces
Mission 4 - Insurance Recommendation App

Summary Timeline Board Calendar List Forms Goals More 5

Search board AP Filter

TO DO 3

- Task 5. Provide Feedback to UX Designers M4IRA-9
- Task 6. Present at Show and Tell - Using Story Telling Techniques M4IRA-10
- Task 7. Submit your work M4IRA-11

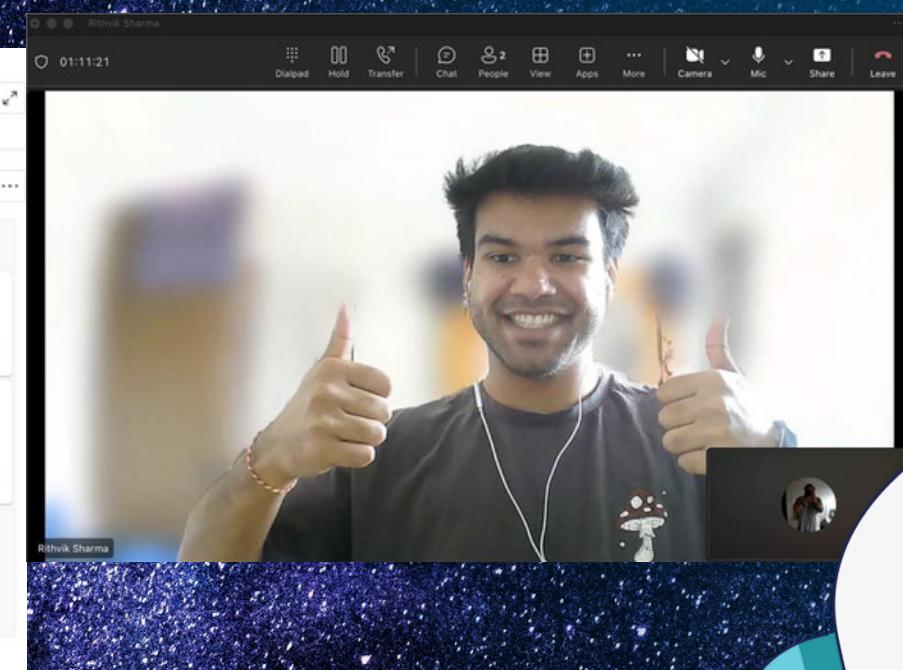
IN PROGRESS 2

- Task 2. Daily Standup M4IRA-2
- Task 4. Containerise the Application M4IRA-4

DONE 2 ✓

- Task 1. Use Jira to Manage Individual Tasks M4IRA-1
- Task 3. Create an Insurance Recommendation Application using Generative AI M4IRA-5

+ Create



Spaces
Mission 4 - Insurance Recommendation App

Summary Timeline Board Calendar List Forms Goals All work More 4

Search board AP Filter

TO DO 1

- Task 7. Submit your work M4IRA-11

IN PROGRESS 2

- Task 2. Daily Standup M4IRA-2

DONE 4 ✓

- Task 1. Use Jira to Manage Individual Tasks M4IRA-1
- Task 3. Create an Insurance Recommendation Application using Generative AI M4IRA-3
- Task 4. Containerise the Application M4IRA-4
- Task 5. Provide Feedback to UX Designers M4IRA-9

+ Create



System Architecture

Frontend (Vite + JS)

- Build → served by Nginx
- Sends requests from the browser → backend using:
- `http://localhost:3000/api/tina/chat`

Backend (Node + Express)

- API endpoint `/api/tina/chat`
- Handles conversation state
- Calls Gemini 1.5 Flash
- Applies insurance rules

Docker Compose

- Two containers
- Frontend → port 4000
- Backend → port 3000
- No internal Docker networking needed because browser localhost works

Tina Insurance Chat

Tina: Hi there! 🙌 What kind of vehicle are you looking to insure today?

You: 1998 Skyline Gtr

Tina: Got it! A 1998 Skyline GTR, nice! 🚗💨 Just a heads up, Comprehensive coverage isn't available for vehicles over 10 years old. Are you planning to use it for racing or track events? This helps me determine all your options. Based on its age, Third Party Car Insurance is definitely available. We can look into Mechanical Breakdown Insurance (MBI) depending on its use!

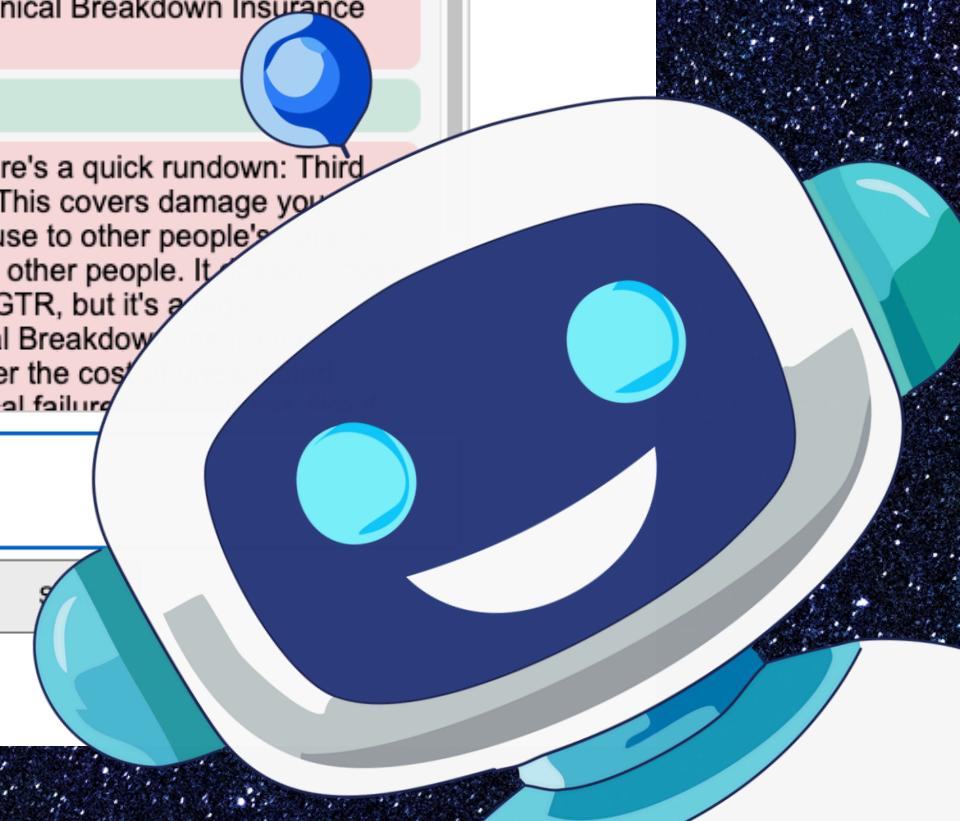
You: i will be using it for car meets only no racing

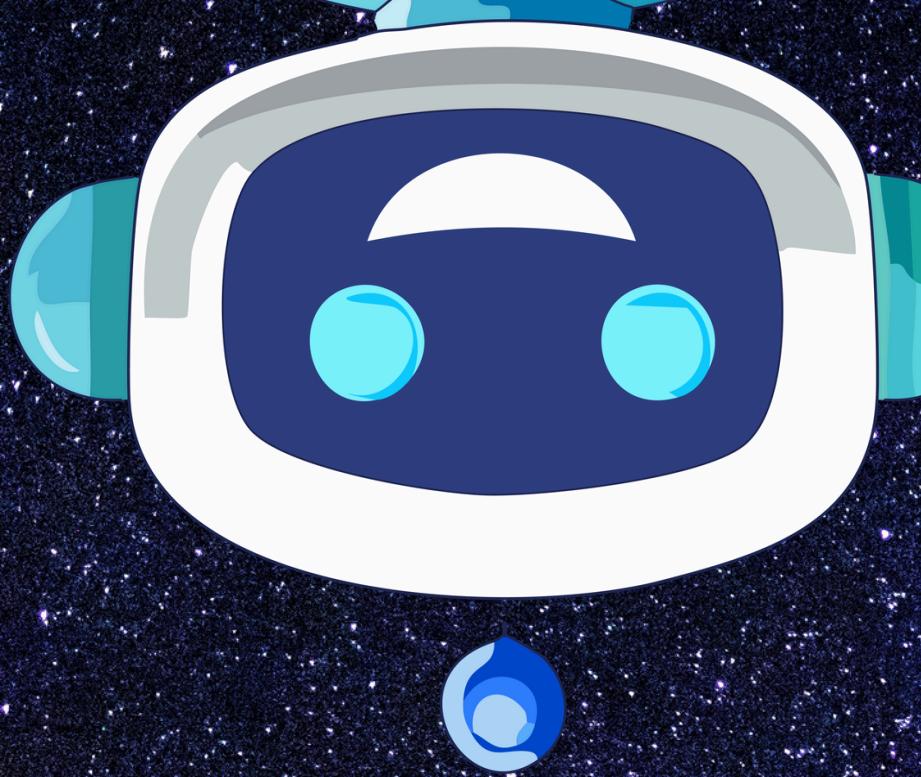
Tina: Okay, good to know it's for car meets only! No racing means MBI could be an option for you. So, for your 1998 Skyline GTR being used for car meets, we can definitely look into Third Party Car Insurance and Mechanical Breakdown Insurance (MBI).

You: tell me more

Tina: No problem! Here's a quick rundown: Third Party Car Insurance: This covers damage you might accidentally cause to other people's property, or injuries to other people. It's a musthave! Mechanical Breakdown Insurance (MBI): This helps cover the cost of mechanical or electrical failure.

Type your message...





Tina the Insurance Consultant

Tina must:

- ✓ Introduce herself
- ✓ Ask for user consent
- ✓ Ask questions dynamically (not pre-coded)
- ✓ Follow business rules:
 - ✗ MBI not for trucks or racing cars
 - ✗ Comprehensive is only for cars < 10 years old
 - ✓ Recommend 1–3 products with reasons

Challenges

- 🔥 1. CORS problems

Frontend → Backend failed due to missing headers.

- 🔥 2. Docker networking

localhost doesn't work inside containers → had to use service names.

- 🔥 3. ENV variables in Docker

Needed correct build-time and runtime values.

- 🔥 4. AI responses too long / cut off

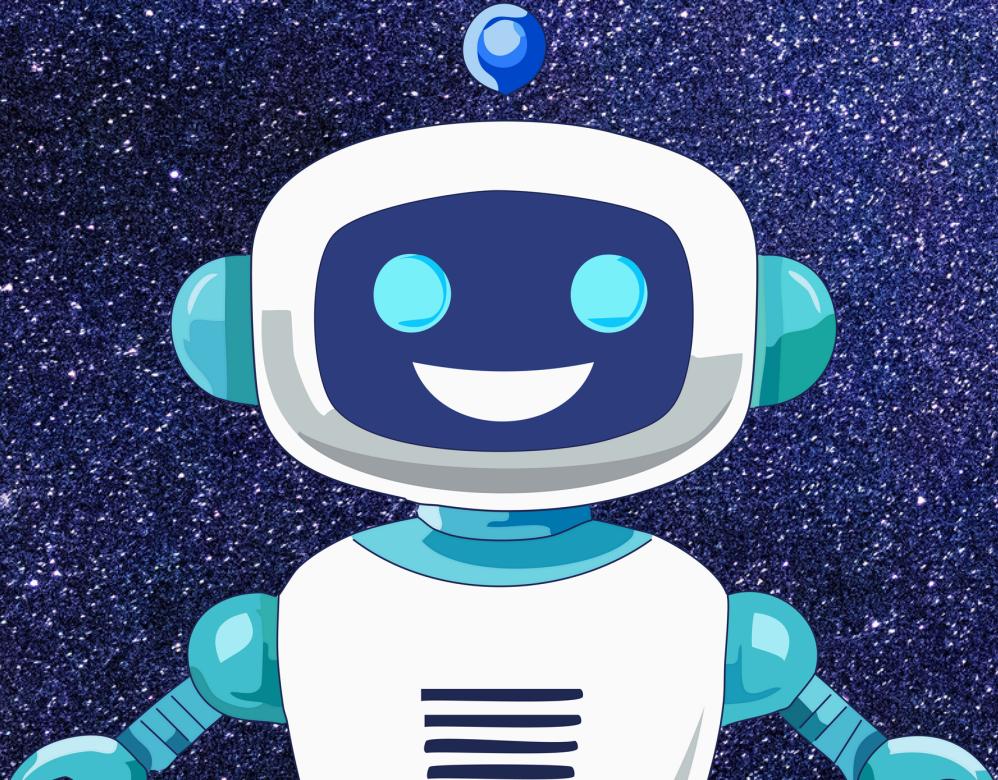
Had to tune prompt engineering.

- 🔥 5. Frontend only worked with npm run dev

Because dev mode uses a local proxy — needed proper Docker build.



How I Solved Them



- ✓ Added correct CORS headers in Express
- ✓ Updated frontend API URL
- ✓ Confirmed browser-to-backend communication works
- ✓ Rebuilt Vite app correctly in Docker
- ✓ Fixed docker-compose to connect both
- ✓ Improved prompt for short, interview-style questions



Thank you