

Meet Billy



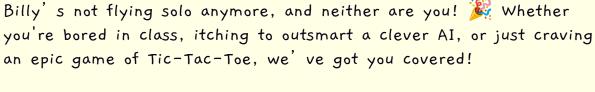
Billy's had a tough week. No one wanted to sit with him at lunch, and his last Tic-Tac-Toe game during recess? Well, he lost... to himself. Sad, right?

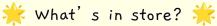
Billy's story is about to change!

We'll introduced Billy to his new best friend... ClaraxO who is ready to challenge Billy's skills to the max?

ClaraXO | We Solve







- \circ A real-time, interactive Tic-Tac-Toe platform to challenge AIs.
- Multiple difficulty levels to match your skills.
- O An intuitive, user-friendly interface for a seamless experience.
- $^{\circ}$ A system that tracks every game, so you can see your progress!

Now, Billy can take on super-smart AI opponents, each one tougher than the last! Whether he wants to feel like a Tic-Tac-Toe champ or wants to test his strategy against our top-tier AI masterminds, Billy's got hours of fun and challenges ahead!





Meet Our Client!



Introducing our innovative client, Manny Rayner! A He wants to build an exciting platform where players can challenge AI in Tic Tac Toe .

Alongside player accounts, Manny envisions researcher accounts for in-depth AI behavior analysis, driving innovation and insights.

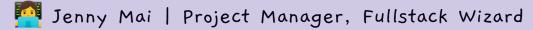
Manny got a great idea, and we're about to make it happen. Buckle up, it's getting real!

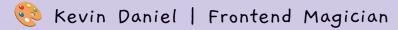
404: TeamNotFound

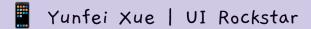




We are...





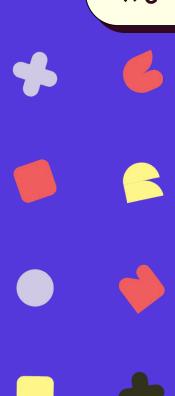


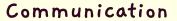
Jingtao Yue | Frontend Hero

🐞 Francis Wei | Tester Extraordinaire









Zoom: video calls with the client and team meetings.

Baillieu Project Rooms: in-person team meetings.

Email: communication with clients.

Collaboration

Discord: sharing ideas, reminders, and discussions among team members.

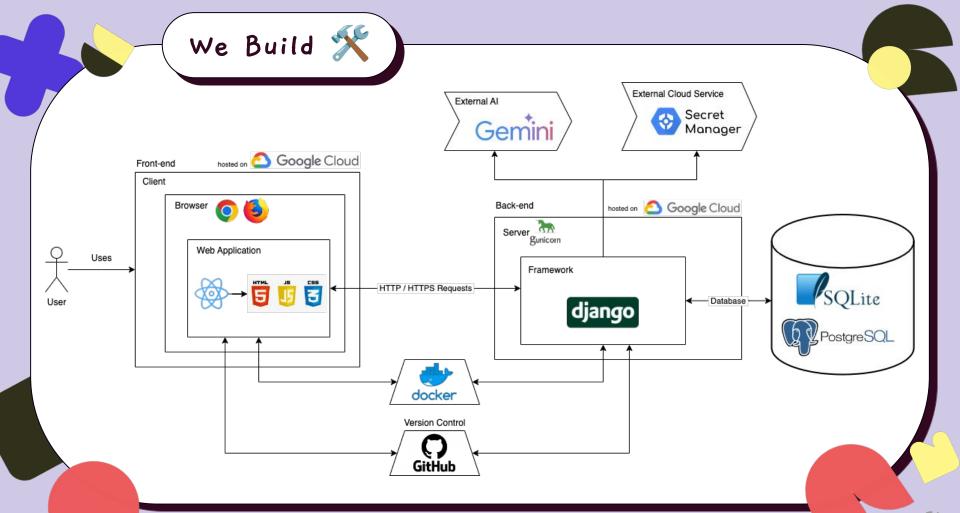
Trello: Task management

Documentation

Google Drive: storing and organizing all project documentation.

SwaggerHub: API Documentation











Unit Testing

Test individual components (i.e. backend models, API calls, app logic)

End-to-End Testing

Test full user journeys, from login to logout, ensuring the entire system functions correctly

Integration Testing

Test interaction between separate system components (i.e. API and database)

Tools & Frameworks

- 1. Pytest for testing backend logic and APIs
- 2. Selenium & Chromedriver to simulate real-world scenarios and user behaviors
- 3. Django Test Framework for API testing

Your Data, We Safeguard 🔐







Sensitive data between client-server is encrypted using AES-CBC mode with initialization vectors (IV) for secure communication.



Sensitive credentials (Cloud keys, API keys, email hosts) are stored in environment variables in both development and deployment.



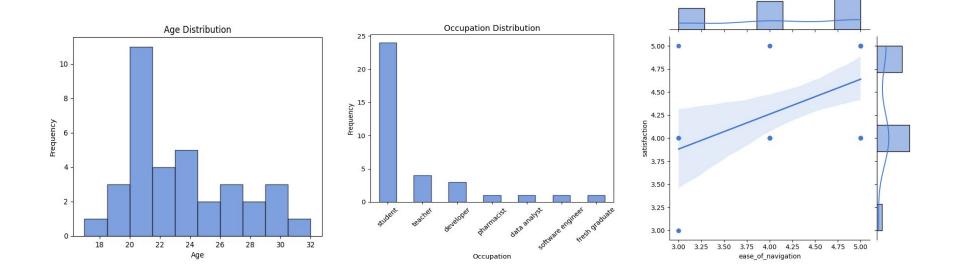
API Key Protection

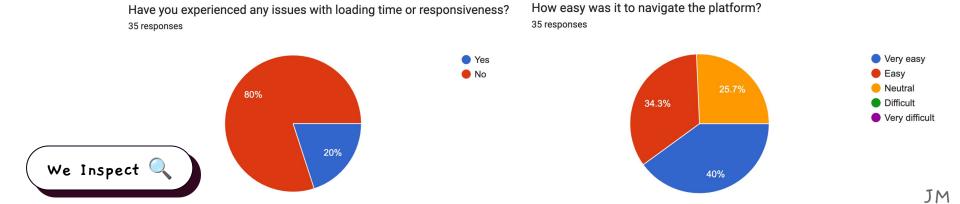
Google Cloud Secret Manager is used to securely store API keys, preventing unauthorized access.

Data Transmission

Data transmissions are secured via SSL/TLS protocols, so user information is protected during communication.







We Were Stuck Once 😟





API Integration Limits

Only the Gemini API was available for free public use, restricting our data sources and integration possibilities.



Front-End & Back-End Compatibility

Achieving smooth interaction between front-end and back-end required creative problem-solving to address compatibility issues.



Varied Experience Levels

Team members had different levels of experience, necessitating support and leveraging each member's strengths.



Security & Privacy Concerns

Implementing best practices for secure storage of personal details was essential to comply with privacy standards.







Frequent and clear communication is key for addressing issues.



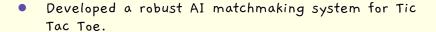
Regular testing throughout the development process helped identify and resolve bugs early.

Value of Documentation

Maintaining good documentation optimized the workflow.



We Got Some Sweet Fruits 🍇



- Key Achievements
- Implemented user registration and secure login for accounts.
- Created a dedicated researcher account type for enhanced project insights.
- Fostered strong teamwork, ensuring collaboration and shared success.
- Enhanced user engagement through effective AI interaction.

Impacts

- Streamlined user experience with account management features.
- Strengthened team dynamics, leading to improved project outcomes.





Video Link

