

Welcome to WiChat!

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Table of contents

1. What is wihat?
2. Team management
3. Technologies
4. Architectural decisions
5. Why choose us over the competition?
6. Testing
7. User feedback
8. Monitoring
9. Deployment
10. Future of wihat



1. What is wichat?

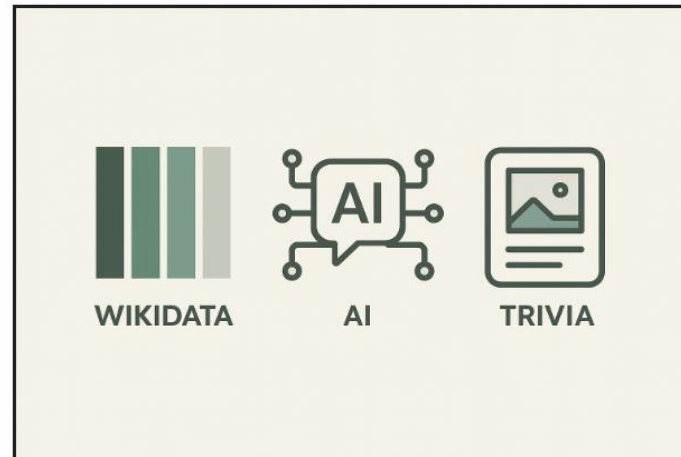
What is Wichat

WiChat is a trivial-style game where you are given an image, a basic question and four possible answers, and you must select the correct one, with the help of an AI powered chatbot.

All questions are generated from Wikidata, the wikipedia information database, and are switched periodically to ensure fresh gameplay every game!

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- Question game mode for one topic(random or not) or all topics at once
- Leaderboard
- User statistics
- Chat with AI to ask for hits
- AI buddy – a friend who may be too sure of his wrong answer

About us

We are a group of students at the University of Oviedo, learning the ropes of agile development on open-source projects using frameworks we've never used. Find more information about the developers and this project on our [GitHub](#)

2. Team management

Use of github:

- **Kanban project** with 5 stages:

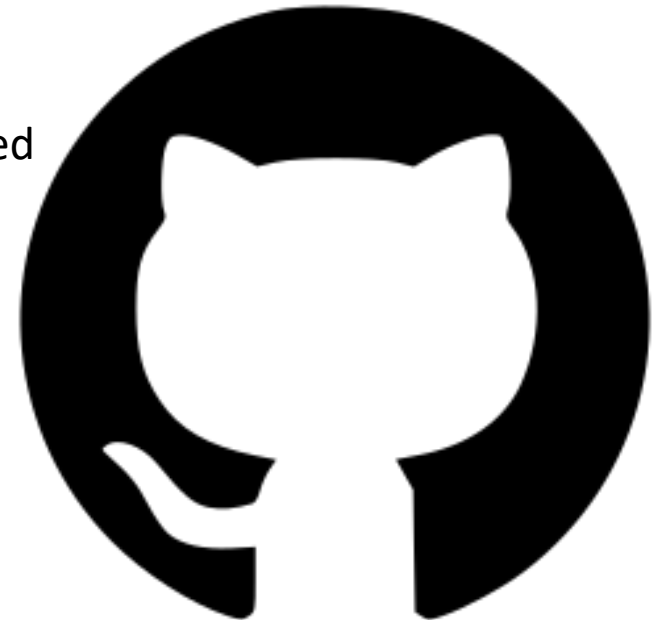
1. Backlog
2. To do
3. In progress
4. In review
5. Done

Flexible organization of the team:

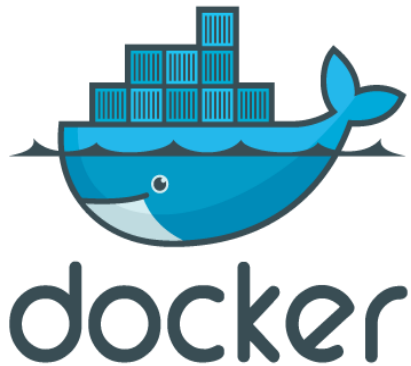
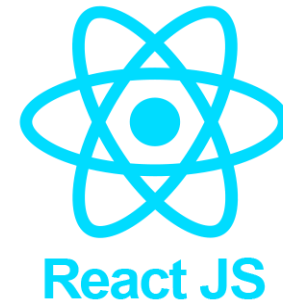
- **Subteams** to ensure efficiency and minimal collision
- Flexible work schedule as long as the deadline is met
- The team members became full stack on meetings and when necessary

Guidelines for development:

- GitHub Flow (branches)
- Meaningful commit messages
- Branch naming conventions used

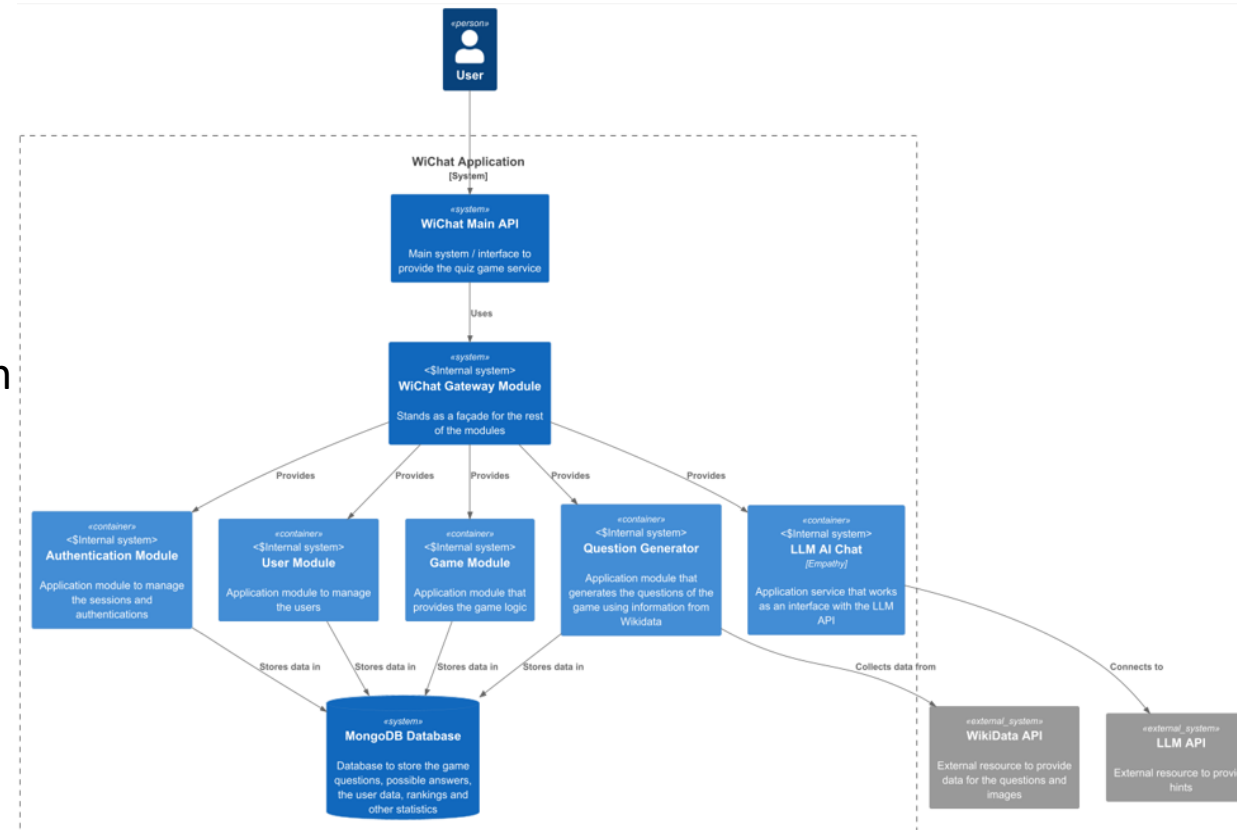


3. Technologies



4. Architectural decisions

- Begin from scratch
- Separate question generation from main backend
- Simple game logic on frontend – better results
- **"Microservices architecture"** (using the same instance of mongo): the main application(webapp) communicates with the backend microservices using the gateway.
- Microservices:
 - Auth service
 - User service
 - Game service
 - LLM service
 - Question service

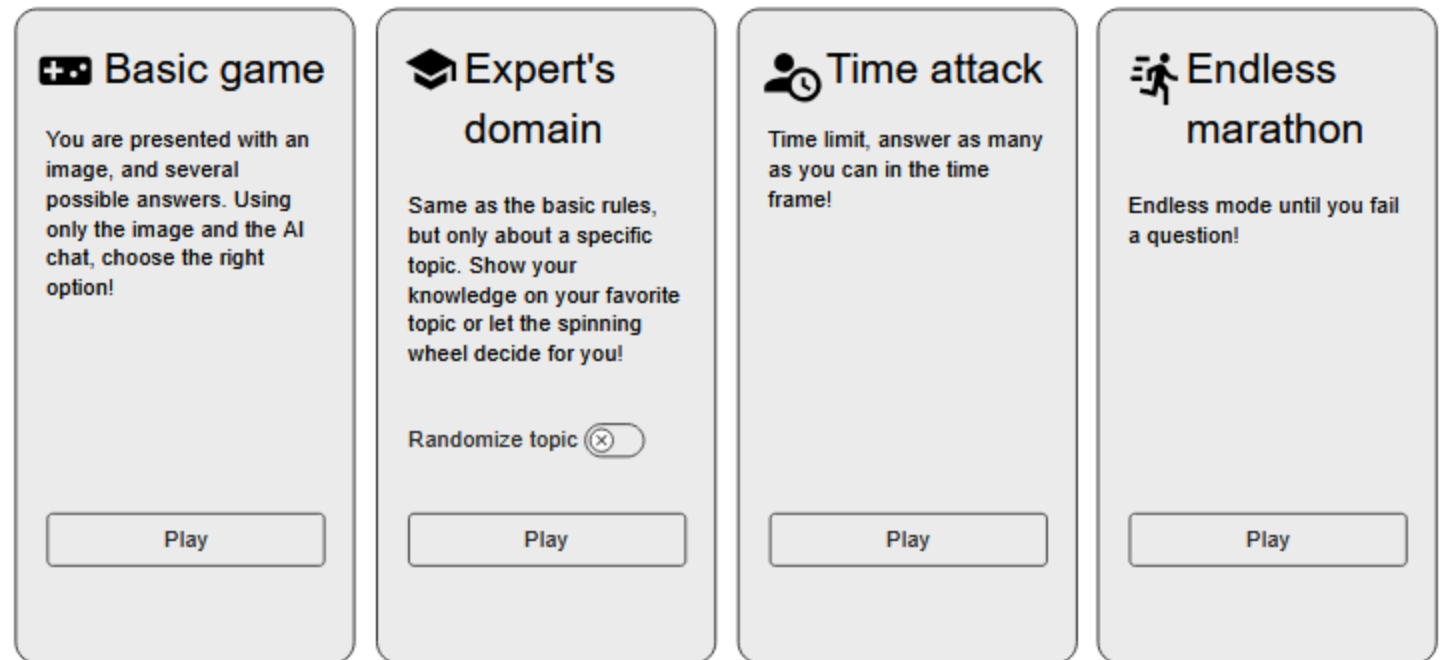


5. Why choose us over the competition?

- Multiple game modes
- Roulette
- AI buddy
- Question generator
- Work ethics

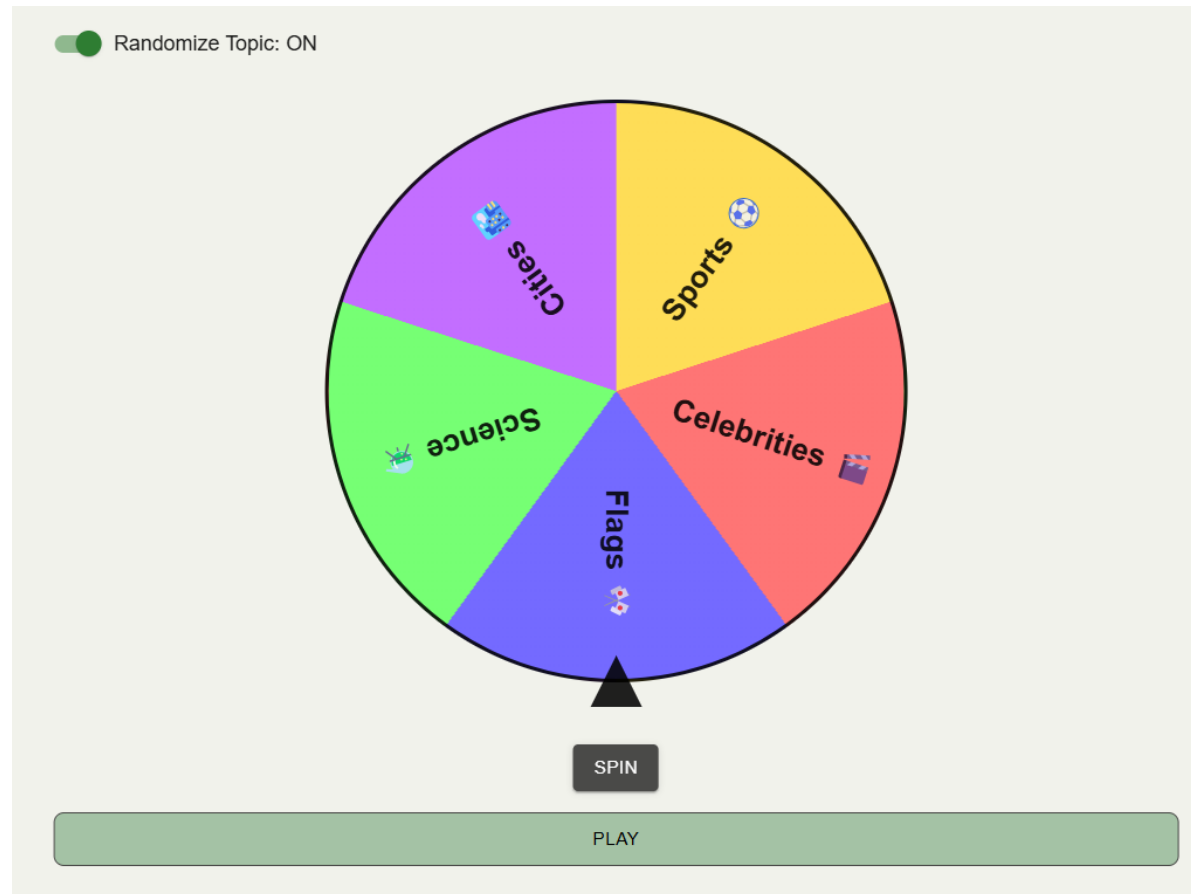
5.1 Multiple game modes

Our team developed several engaging game modes for the user:



5.2 Roulette

In expert's domain, the topic can be selected or randomized



5.3 AiBuddy

A friend that does its best

Attempts to help with its knowledge, he may be wrong

Transforms hallucinations of Ai into a useful and engaging feature for the users

Telling the truth:

I suspect Mixed Martial Arts (MMA) originated in Brazil – it's the land of the famous Brazilian Jiu-Jitsu! You know, every time I see a really intense UFC match, I can't help but think of how much I'd love to try Brazilian acai afterwards (but probably just watch from the sideline).



Lying:

I believe the flag of Siberia would be the flag of the Russian Federation, as Siberia is a region in Russia. It's a beautiful representation of our diversity, much like my eclectic music playlist! (Wish I could play it for you...)



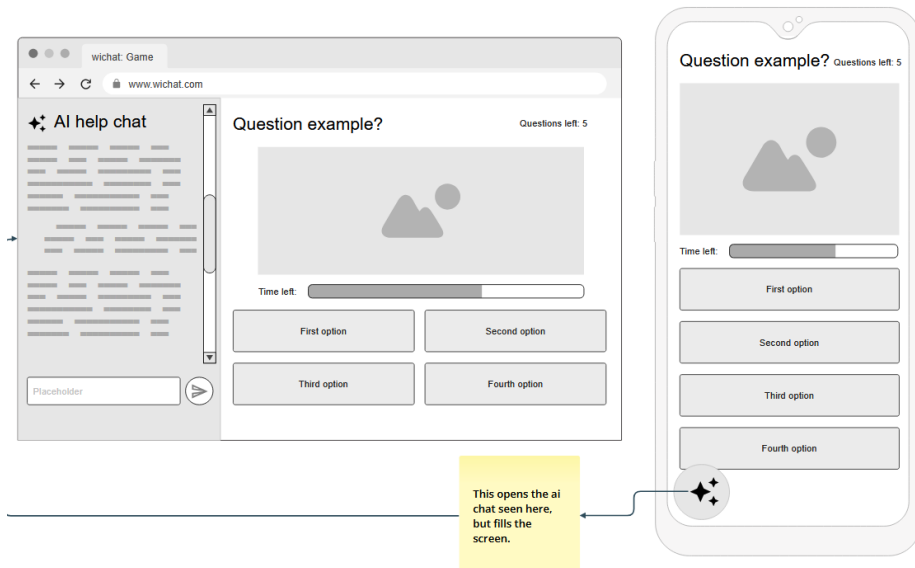
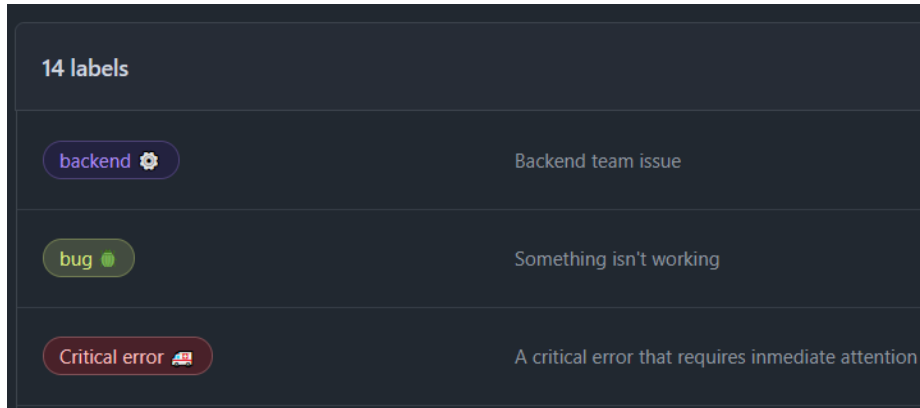
5.4 Question Generation

- Generation of questions **periodically**
- **Concurrently** with the question service module (cron job)
- Implemented a system to **avoid** getting the **same results** of the wikiData query (skipping with offset)
- Questions generated by que "**question-generator**" and stored in the "questiondb"
- The "**question-storage**" is the one in charge of **storing** and **retrieving** questions from the **db**
- **System to delete questions** from the database when a certain amount of **time has passed** since their creation

```
questionservice-wichat_en1a | [1] Initial questions generated successfully.  
questionservice-wichat_en1a | [1] Cron job for generating questions initialized.
```

```
services  
├── question-generator.js  
├── question-storage.js  
└── question-worker.js
```

```
questionservice-wichat_en1a | [1] Generating new questions...  
questionservice-wichat_en1a | [1] Questions generated successfully.
```



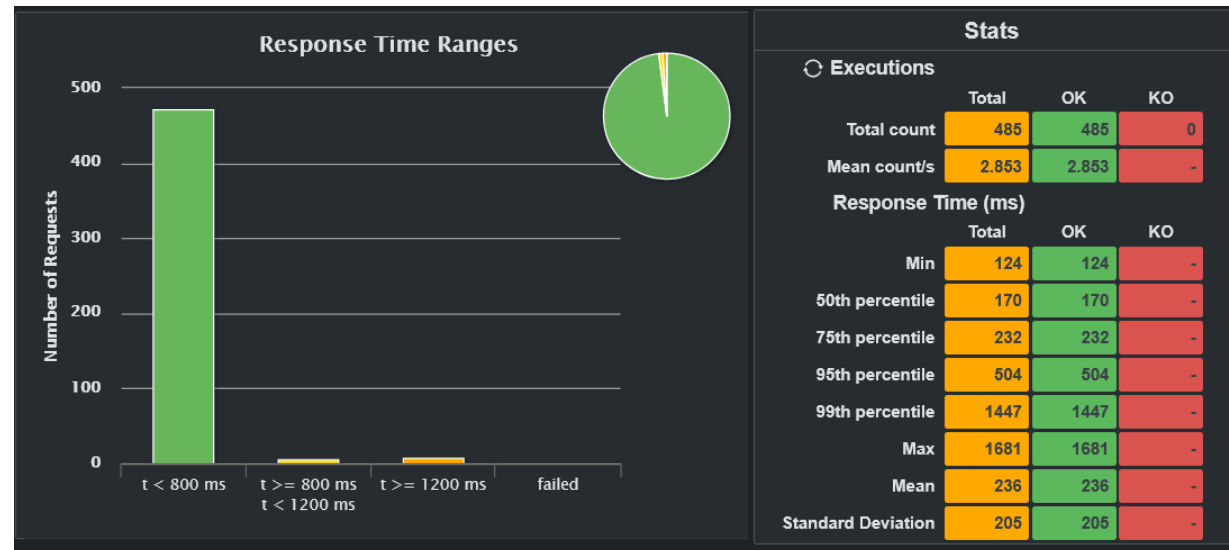
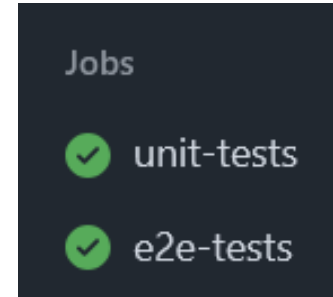
5.5 Work ethics

Our team developed the system with the client(you) in mind:

- **Mockups** to show designs
- Asking for **feedback** about aesthetics and functionalities at weekly meetings
- **Preserved the user's data** on production once fully released
- **Categorize every new issue or bug** found

6. Testing

- **Unit test:** checks the correct behaviour of the application.
- **End to end tests:** simulates the user behaviour using Cucumber.
- **Load test:** test the performance of the application using Gattling.
- **Real user testing:** Asked several testers to sit, try the application and submit feedback



7. User feedback

We ask real users for feedback after the v1.0 release:

- Signup: allow characters, error notification
- Accessibility: fail to adapt to phone screen
- Application style: inconsistent design of the website
- LLM chat shortcuts: have the enter key send the typed message to the llm directly
- Internationalization: changing the language and navigating page reverted the language back to english

Feedback

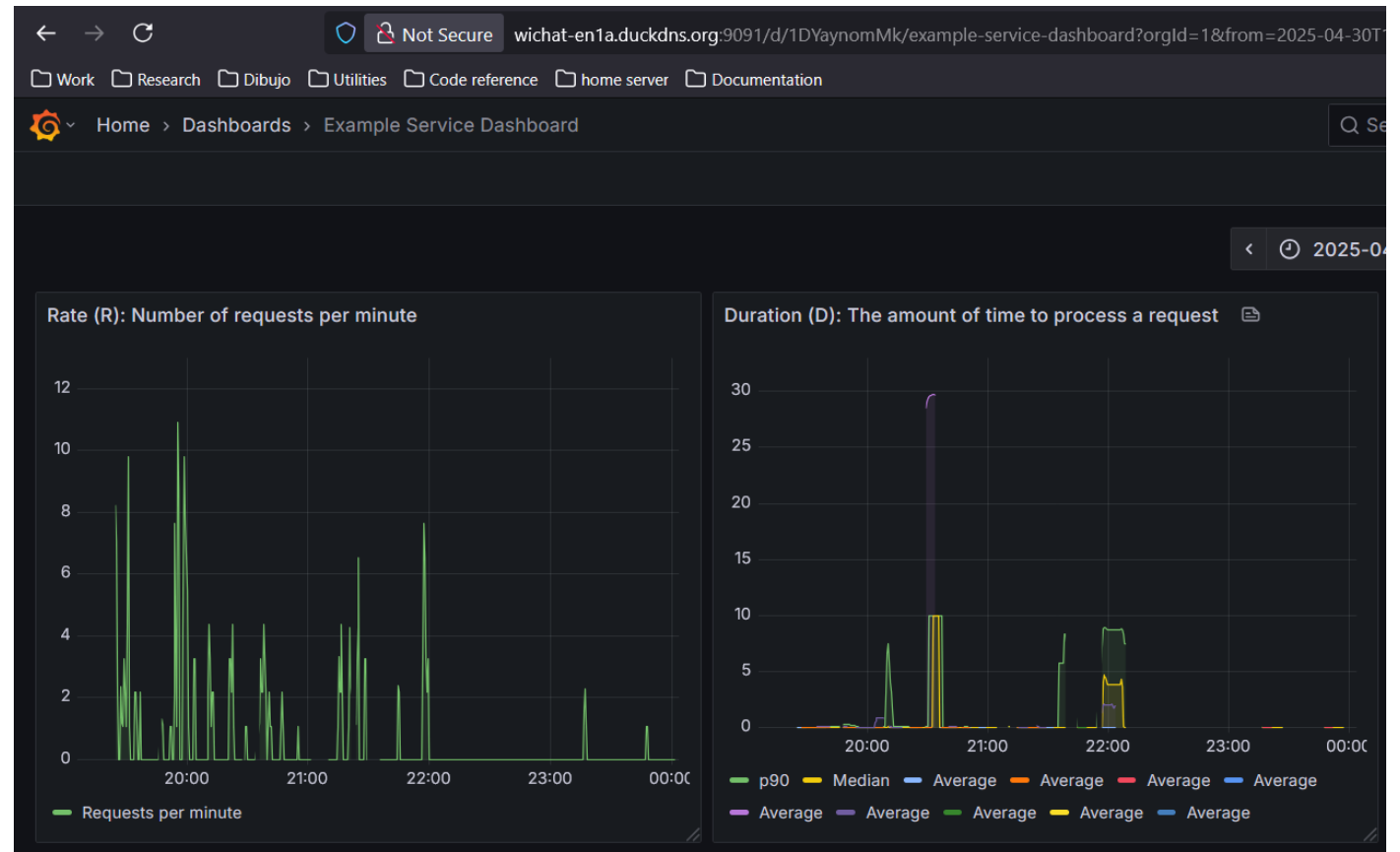
[release v1.0, initial user feedback](#)

We have fixed several of these issues in the following releases.

8. Monitoring

Both on development and production at port 9091

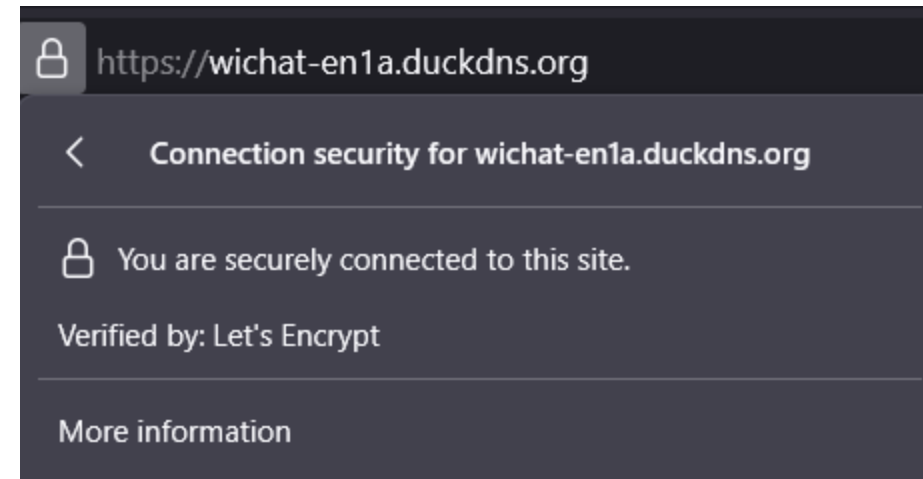
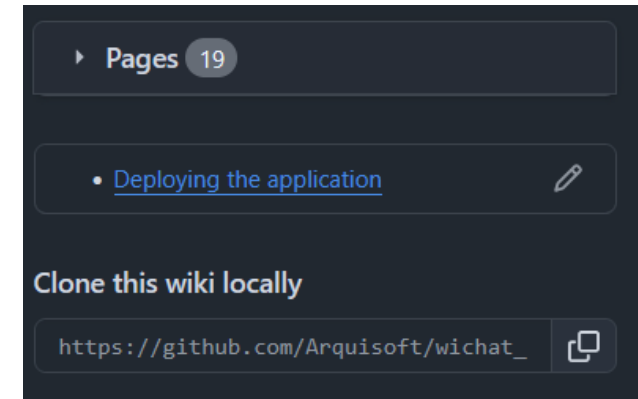
Less attention from the team in favor of better tests and improved user experience by direct feedback



9. Deployment



- **Automated** via github action
- **Secured** via proxy
- Production machine has 2 vcpus, 8GB Ram
- **https** on custom domain name
- Backend behind **/api** only on production
- Step by step **guide** on the wiki without https, as that will be different for each company



10. Future of WiChat

- New game modes
 - Dark mode
 - Better security/usability
- And many more!

The team is open for contact to add new functionalities

