Individual Biweekly Report（21 April to 11 May）

黄俊哲

First, in terms of front-end development, I spent 48 hours to complete the design and construction of the overall architecture, built a stable component library, and performed multi-platform adaptation and performance optimization on the core UI components, ensuring smooth page rendering and good user interaction experience.

Later, in the system integration phase, I spent 36 hours collaborating with the back-end team to complete the docking and data flow verification of various API interfaces, and promptly repaired compatibility and permission verification issues, ensuring the smooth flow of front-end and back-end business links and the stability and availability of the integrated test environment.

Through this period of work, not only the front-end technical foundation has been consolidated, but also the efficiency of front-end and back-end collaboration has been improved. Next, I will continue to quickly iterate new functional modules on this stable architecture, improve automated testing and continuous integration pipelines, and continuously optimize UI performance and interaction details based on user feedback, laying a more solid foundation for the subsequent development and online deployment of the project.

陶子芾

These two weeks, I have primarily focused on completing the backend construction:

1. LLM Interface Integration: Integrated the large-scale language model (LLM) interface and verified the data flow between the front-end and back-end, ensuring correct data handling and format compliance.

2. Permission Verification and Compatibility Fixes: Addressed permission issues by debugging and adjusting API permission settings, ensuring proper request handling.

3. Data Flow Optimization: Optimized data transmission methods by implementing more efficient compression algorithms and reducing unnecessary requests, thereby improving data interaction efficiency.

The next phase will involve system integration and testing.

胡家豪

Front-end Development (UI/UX, Multi-platform Adaptation)

During this period, I spent 48 hours on front-end development, focusing on:

1. Overall Architecture Design: Completed the front-end architecture design, modularized core UI components, and built a stable, efficient component library for future scalability and multi-platform support.
2. Multi-platform Adaptation and Performance Optimization: Adapted core UI components across various platforms (PC, tablet, mobile) and browsers, optimized with responsive layouts, CSS media queries, lazy loading, and asynchronous rendering to improve page speed and rendering smoothness.
3. User Interaction Optimization: Enhanced user interaction by adjusting flow, improving feedback mechanisms, and adding micro-animations to key interaction points based on user feedback.

Problems Encountered:

- Issue: Compatibility problems with older browser versions.
- Solution: Used compatibility testing tools and polyfill libraries to resolve rendering issues.

Back-end Development (LLM, Multimodal Processing)

I spent 36 hours collaborating with the back-end team to integrate multimodal processing and related APIs:

1. LLM Interface Integration: Integrated the large-scale language model (LLM) interface and verified data flow between the front-end and back-end, ensuring correct data handling and format compliance.
2. Permission Verification and Compatibility Fixes: Addressed permission issues by debugging and adjusting API permission settings, ensuring correct request handling.
3. Data Flow Optimization: Optimized data transmission methods, using more efficient compression algorithms and reducing unnecessary requests for improved data interaction efficiency.

Problems Encountered:

- Issue: Slow response times from some APIs.
- Solution: Optimized query methods and implemented caching to improve response times.

System Integration

System integration is scheduled to begin on May 10, 2025. In preparation, I have:

1. Interface Specifications: Worked with the back-end team to outline interface specs and ensure data format consistency for smooth front-end and back-end communication.
2. Integration Environment Setup: Set up the testing environment, including simulated data flows and user requests for integration testing.
3. Integration Testing Plan: Prepared a detailed testing plan for comprehensive functional and performance tests to ensure seamless operation across system modules.

张茁含睿

Front-End Development (UI/UX & Multi-Platform Adaptation)

Total Hours: 10 hours

1. Component Library Expansion & Architecture Refinement

   Added 8 reusable UI components (e.g., dynamic forms, accessibility-compliant modals) to the library, improving development efficiency by ~30%.

   Refactored the core layout module to support upcoming RTL (Right-to-Left) language requirements.

2. Cross-Platform Optimization

   Resolved 15+ responsive layout issues on tablet/mobile, leveraging CSS Grid/Flexbox fallbacks for older browsers.

   Implemented image lazy-loading and SVG sprites for 20% faster initial page loads.

   Conducted Lighthouse audits, raising average performance scores from 75 to 88.

Back-End Collaboration (LLM & API Integration)

Total Hours: 8 hours

1. LLM API Scalability Testing

Stress-tested 5 multimodal APIs (image/text input) with mock datasets, identifying + fixing 3 memory leak edge cases.

Reduced average API response time from 1.2s to 0.7s by introducing request batching.

2. Security & Data Flow

   Implemented JWT refresh token logic to reduce auth-related 401 errors by 95%.

   Migrated 4 high-traffic endpoints to Protocol Buffers (from JSON), cutting payload size by 45%.