**EC601 Project2** zxd10032 U53670847

**Introduction**

My Project2 is a network platform that provides chiplets technical consultation services. It can provide users with detailed and comprehensive chiplets solutions and their related parameters, help users save energy in research and entry relevant fields, and reduce the risk of information gap for enterprise users

**Product features**

The chiplets technology service platform is designed to provide a one-stop chiplets solution for researchers, manufacturers and OEM. The core features of the platform include:

Personalized recommendation for researchers: According to the needs of researchers, provide the appropriate chiplets models and their parameters, convenient for research and development.

Cost-effective solutions for manufacturers: According to the application scenarios of manufacturers, recommend cost-effective chiplets to help them optimize production costs and performance.

Recommend matching chiplets products for OEM: According to the specific needs of OEM, the platform automatically recommends the most suitable chiplets products and provides detailed specifications. To solve problems in performance requirements or manufacturing costs.

Providing data and analytics: The platform can provide technical data, performance analysis, and market trend reports based on user needs to help users make considerable decisions.

Support interaction and feedback: users can interact with the platform, submit technical requirements or feedback, and the platform continuously optimizes recommendation schemes and algorithms based on this information.

**Workflow**

The workflow of the platform is as follows (Code and web page will be generated by gpt):

1. User input:

Users enter their specific requirements on the platform, such as performance, power consumption, cost budget, or application scenarios of the chip.

2. Requirement analysis and matching:

The platform analyzes the information entered by the user using machine learning techniques and matches against the existing chiplets library. It automatically filters chiplets models that meet the requirements.

3. Recommendation and optimization:

The platform generates recommendations, providing researchers with the most suitable small chip models and parameters for their experiments or development, and providing manufacturers and OEM with cost-effective or matching finished solutions.

For manufacturers, the platform also optimizes the recommendations based on their budget and performance needs, providing several options for comparison.

4. Interaction and Feedback:

Users can interact with the platform, ask further questions about the recommended scheme, get more technical details, or request different optimization strategies.

The platform can adjust the algorithm based on user feedback to gradually improve the accuracy of the recommendation and user satisfaction.

5. Report generation and customer support:

The platform generates detailed technical reports for each user, including recommended chiplets models, performance comparison, price analysis, supplier information, etc. The report can be used as a reference for users to make decisions.

Users can also use the platform to get customer support, ask technical questions or get more usage guidance.

**User stories**

The target user groups of the platform include researchers, manufacturers and OEM. For each type of user, the platform provides a personalized solution. Here are the respective user stories:

***Researcher:***

As a researcher, I hope to quickly find small chip models that meet my experimental needs through the platform, and see detailed technical parameters and data to help me accelerate the research and development process.

***Manufacturer:***

As a manufacturer, I need the platform to recommend small chips with high-cost performance for my application scenario to help me maintain or improve product performance while reducing production costs.

***OEM:***

As an OEM manufacturer, I hope that the platform can recommend chiplets that meet the specifications according to my terminal product requirements, and can directly connect with suppliers for convenient and quick procurement and production.

**MVP**

1. User input matches requirements

Story: As a new user, I want to be able to input my needs quickly and get the chiplets model or solution that meets my requirements through the platform.

Rationale: This is the core functionality of the platform; all users need to get personalized recommendations through requirements input.

2. chiplets recommendation and cost-performance analysis

Story: As a manufacturer, I want to be able to get the best price/performance small chip solutions through the platform to help me reduce costs while maintaining performance.

Rationale: The manufacturer's requirement for cost performance is the key value of the platform and directly affects their production decisions.

3. Technical report and parameter comparison

Story: As a researcher, I would like to be able to download the technical report to view the technical parameters and performance comparison of each recommended chiplets in detail to facilitate my selection.

Rationale: Researchers need precise technical data to make experimental choices, which is a fundamental function of the platform.

4. User feedback and interaction

Story: As a user, I would like to be able to interact with the platform to get more technical support and details about recommended chiplets and ensure that the recommended scheme meets my needs.

Rationale: Interaction and feedback mechanisms can improve the user experience and help the platform to further optimize the algorithm.

5. Basic security and data management

Story: As a user, I want my data to be safe on the platform from being leaked or misused.

Rationale: Data security is key to building user trust and must be ensured from the launch of the platform.

**Privacy and security**

Since chiplets technology involves a large number of sensitive data and intellectual property issues, the platform will provide various of security methods.

Data encryption: Ensure that all user data is encrypted and protected during transmission and storage.

Access control: Different types of users (such as researchers, manufacturers, and OEM) should have different permission Settings to ensure hierarchical access and use of data. Regular audit: Regular platform security audit and vulnerability scanning to ensure system security and stability.

Data Backup: Implement data backup policies to ensure that users' critical data is not lost due to system failures or other reasons.

In summary, chiplets technology service platform aims to provide personalized recommendation services for different users to help them choose the appropriate small chip solution according to their needs, while protecting the user's data through privacy and security mechanisms.

(Combining text generated by GPT, manually modified and refined)