**Why We Chose Prathmesh’s Design**

1. **Clear and Organized Design:**
   * Prathmesh’s design implemented well-established patterns such as Factory, Strategy, and Singleton. These patterns not only made the codebase more structured but also ensured it was easier to update and extend.
   * In comparison, Haixi’s design, while functional, was less modular, making the addition of new features more challenging.
2. **Better Class Structure:**
   * Each class in Prathmesh’s design had a distinct and well-defined purpose, simplifying understanding and maintenance.
   * Haixi’s design, on the other hand, occasionally combined multiple responsibilities within a single class, which increased complexity and reduced clarity.
3. **Scalability:**
   * Prathmesh’s game offered flexible features, such as adjustable board sizes and customizable team configurations. These additions enhanced adaptability and made the game more enjoyable for a wider range of players.
   * Haixi’s design lacked this level of flexibility, limiting its appeal.
4. **Enhanced User Experience:**
   * User-friendly elements, like color-coded text, made the game more intuitive and visually engaging, clearly distinguishing different gameplay phases.
   * While Haixi’s interface was functional, it missed these additional refinements that improved overall user satisfaction.
5. **Future Expansion:**
   * Prathmesh’s design incorporated reusable components, such as those supporting team-based gameplay, which made it future-proof and ready for new features.
   * Haixi’s code, however, would require significant restructuring to accommodate similar updates.

**Looking Back – Was It the Right Choice?**

**Yes, choosing Prathmesh’s design was undoubtedly the right decision. It struck the perfect balance between flexibility, scalability, and user-friendliness. This design provided a solid foundation for future growth while delivering an exceptional gameplay experience.**

**Key Strengths:**

* **Ease of Expansion:** The organized architecture made it effortless to introduce new features without breaking existing ones. Features like scalable board sizes (e.g., 5x5, 9x9) and adjustable team configurations enriched the game, offering players more options and customization.
* **Clear Class Responsibilities:** By adhering to the Single Responsibility Principle (SRP), each class was focused on a specific task. For instance, GameController managed game flow, while BoardPiece and Player concentrated on tiles and characters, respectively. This made debugging **and** maintenance straightforward.
* **Player Experience:** The flexibility in board and team sizes allowed for varied gameplay, significantly enhancing player enjoyment.
* **Efficient Issue Resolution:** Clearly defined responsibilities for each class made it easy to locate and resolve issues quickly.

**Areas Improved**

1. **Command Optimization:**
   * Streamlined user commands and improved formatting for easier operation and better usability.
2. **Reduced Code Redundancy:**
   * Leveraged utility libraries and functions to minimize repetitive code, resulting in a cleaner and more efficient codebase.
   * Centralized input handling using a Singleton Scanner, ensuring consistent and reliable user input processing.
3. **Gameplay Mechanics:**
   * Enhanced tactical gameplay through RPG elements like inventory management, battle strategies (attack, spell, equip), and terrain effects (e.g., bushes boosting dexterity).
   * Introduced reusable components like the Team class for multiplayer interactions, paving the way for team-based gameplay in future updates.
4. **Player Experience Enhancements:**
   * Intuitive design elements, such as color-coded text, improved engagement by clearly differentiating phases like battles, markets, and navigation.
   * Flexible mechanics, including recalling heroes to the Nexus, teleportation, and obstacle removal, added strategic depth and variety to player decisions.

**Conclusion**

Prathmesh’s design fully met our goals of being easy to update, flexible, and user-friendly. While there’s always room for improvement, the design successfully delivered a robust and engaging foundation for the game. It set a high bar for future development and ensured scalability for more advanced gameplay features.