

Proposal for BIS Hackathon 2024

Problem Statement :

Design and development of a platform for organizing online activities games

Team Name :

AlgorX

Team Members :

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Overview

- The NLP-powered quiz system integrates an AI-driven quiz engine within a gamified environment to enhance user awareness of BIS standards and product safety.
- Users engage with context-aware quizzes that adapt to their progress, unlocking new levels and content as they learn.
- The system promotes consumer empowerment and knowledge retention through real-time feedback and interactive challenges, aligning with the BIS Hackathon's goals of promoting standardization and safety.
- Overall, it fosters informed decision-making in product selection and encourages ongoing participation in learning activities

Technologies Used

 Kotlin





python™



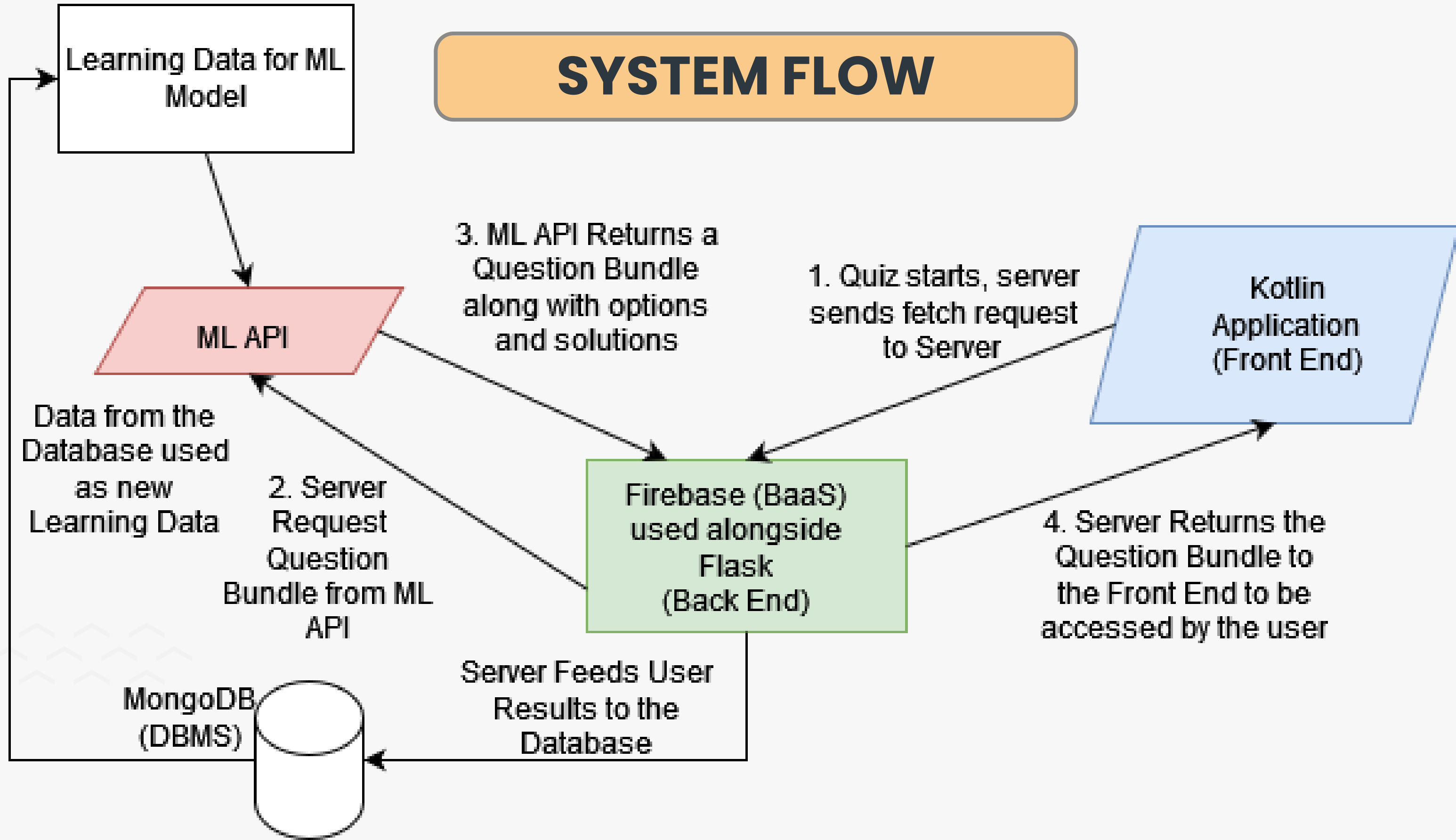

TensorFlow




Jetpack
Compose



SYSTEM FLOW



GAME MECHANICS

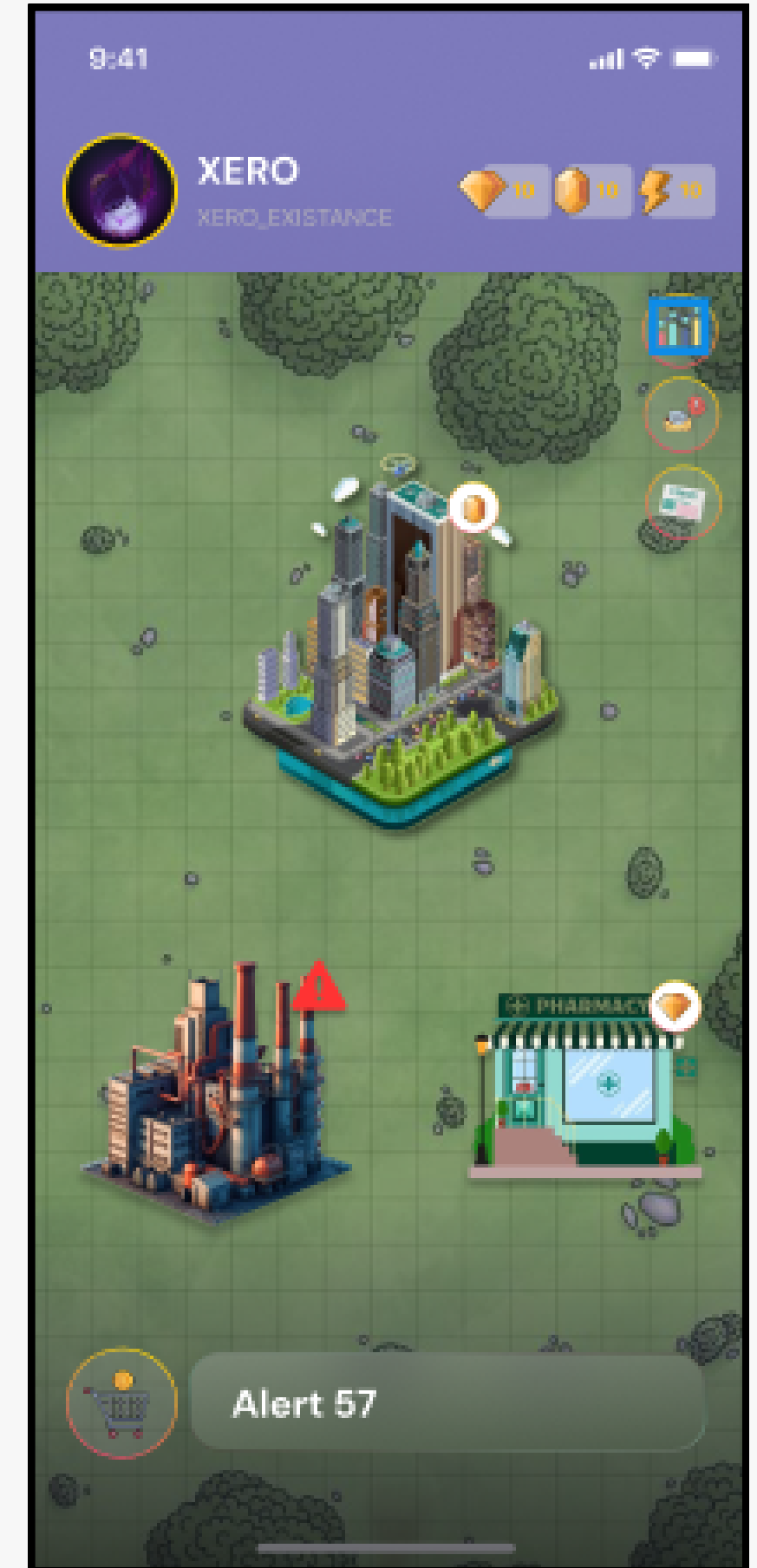
The game consists of three key departments: City, Factory, and Market, each generating its own unique currency that players can use for upgrades.

Department Upgrades:

- Players reinvest generated currencies to enhance each department's performance.
- Upgrades require contributions from all departments, promoting a balanced approach to development.
- Progress is displayed on a leaderboard, tracking player levels and achievements.

News and Scenarios:

- Regular articles provide valuable insights on departmental topics, encouraging players to stay informed.
- General Scenarios: These quizzes reward players with department-specific currencies for correct answers, fostering a comprehensive understanding.
- Crisis Scenarios: Critical events that players must address correctly to maintain department operations; incorrect responses pause currency generation until resolved.



NLP-POWERED ADAPTIVE QUIZ SYSTEM

The NLP-powered quiz system provides an interactive learning experience focused on BIS standards and product safety. Players enhance their knowledge of Indian standards through tailored quizzes as they progress.

Dynamic Workflow

- Smart Question Sets: Context-aware quizzes based on user progress.
- Real-Time Feedback: AI analysis with instant insights.
- Progressive Unlocks: Rewards for correct answers.

Alignment with BIS Hackathon Objectives

- Promotes Awareness: Educates the public on standards for product safety and quality.
- Encourages Engagement: Gamified content keeps users involved.
- Improves Decision-Making: Teaches identification of certified products and safety protocols.

User Benefits

- Practical Knowledge: Hands-on understanding of BIS standards.
- Informed Consumers: Empowers better product choices.
- Progressive Learning: Rewards and game elements encourage ongoing learning.



DASHBOARD

- **Real-Time Accuracy Tracking:** The dashboard features an interactive "right-to-wrong" wheel providing users with instant feedback on their quiz performance. This allows them to gauge their accuracy and focus on improving weak areas.
- **Progress Monitoring:** A dynamic bar graph visually tracks the number of correct answers over time, offering users a clear view of their learning curve and progress. It enhances motivation by showcasing consistent improvements.
- **Engagement-Driven Leaderboard:** The leaderboard fosters healthy competition among users, encouraging them to climb the ranks based on their quiz results. This gamified element drives ongoing participation, motivating users to stay engaged and informed about BIS standards.
- **Actionable Insights:** The dashboard delivers actionable insights through intuitive visual tools, promoting user empowerment and ensuring that learning is both enjoyable and effective.



Learning Outcome

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The game helps players understand key aspects of BIS (Bureau of Indian Standards) policies through interactive scenarios and challenges. Here's what users will learn:

- **Product Quality and Standards:** Players experience how departments (City, Factory, Market) operate under BIS standards, emphasizing the importance of certified products (e.g., ISI mark) in ensuring safety and quality.
- **Consumer Protection:** Through scenarios, users learn about consumer rights and how BIS protects them from substandard products, helping players recognize certified, safe goods.
- **Certification and Compliance:** Players upgrade departments and handle crises related to non-compliance with BIS standards, learning the consequences of failing to meet regulations, such as halted production.
- **Testing and Hallmarking:** The game introduces the role of BIS in testing and hallmarking precious metals, teaching users to identify genuine products and avoid fraud.
- **Crisis Management:** Crisis Scenarios simulate real-world product recalls or regulatory violations, showing the importance of compliance with BIS for smooth operations.

Overall, the game educates players on BIS's role in standardization, product certification, and consumer safety, helping them become more informed, responsible consumers.