

Building an Intelligent Approval Workflow System for Item Management & Question Generation



The Client

The client is an education technology organization. Their existing platform for item management and question generation lacked a robust, scalable workflow system to manage complex approval processes across content lifecycle stages.

The Challenge

The legacy setup led to operational inefficiencies:

- ✓ **Manual Approval Processes:** Approvals handled via 3rd party system, spreadsheets, or loosely defined system steps.
- ✓ **Lack of Workflow Standardization:** No unified process for authoring, review, moderation, and publishing.
- ✓ **Limited Traceability:** Poor visibility into item status, reviewer actions, and audit trails.
- ✓ **High Dependency on SMEs:** Continuous involvement required to define and refine workflows.
- ✓ **Slow Requirement Definition:** Workflow requirements were unclear and evolved frequently.

Critical Success Parameters

- ✓ **Workflow Gaps in Existing System:** Lack of structured approval workflows for item management and question generation.
- ✓ **Manual Approval Processes:** Dependency on manual coordination leading to delays and inconsistencies.
- ✓ **Limited Visibility & Traceability:** No clear tracking of item status, approvals, and reviewer actions.
- ✓ **Workflow Standardization Needs:** Inconsistent approval processes across item types and teams.
- ✓ **Scalability Requirements:** Existing approach unable to support growing content volume and users.
- ✓ **Faster Requirement & Delivery Cycle:** Need to accelerate workflow development using an AI-native approach.

Our Approach

To address these challenges, Magic used ezSuite™ for AI-native content transformation, designing and integrating a new workflow management system into the client’s existing platform from requirement creation through code generation.

- ✓ **AI-Native Requirement Engineering:** Extracted workflows from Figma using AI with HITL validation.
- ✓ **Automated Backlog Generation:** AI-created epics, user stories, and acceptance criteria.
- ✓ **AI-Driven Workflow Engine:** Configurable approval workflows for item lifecycle.
- ✓ **Seamless Integration:** Integrated with existing item and question modules.
- ✓ **AI-Assisted Development:** Accelerated API and UI development using AI.
- ✓ **HITL-Governed Execution:** Human validation to ensure accuracy and alignment.



Key Result Highlights

60% faster workflow development.

70% reduction in requirement-definition time.

35% reduction in rework cycles.

50% faster future workflow enhancements.