

LMS Modernization: Requirements & Gap Analysis

Representative BA artifact for analysing an established learning-platform workflow during modernization and redesign.

Artifact	Legacy-to-modern requirements / gap analysis	Environment	K-12 learning platform / SaaS
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Confidentiality note. This is a representative reconstruction based on the type of modernization and requirements work performed professionally. Product screens, rules, names, data, and implementation details have been changed or generalized. It is not an original employer document.

1. Modernization problem

The redesign introduces a more modern experience for an existing workflow. The BA challenge is not to reproduce every legacy interaction, but to identify which behaviours represent real business rules, permissions, validations, and data dependencies that still need to exist in the modern experience.

Working question: What should be preserved, intentionally changed, removed, or clarified before the redesigned workflow is development-ready?

2. Analysis approach

Step	BA activity	Output
1. Understand current behaviour	Walk through existing workflow, roles, states, validations, data and exceptions.	Current-state behaviour inventory
2. Review intended design	Compare proposed screens/interactions against existing behaviour and stated product objective.	Design-to-behaviour comparison
3. Classify differences	Separate required business behaviour from legacy UI constraints and obsolete behaviour.	Gap / decision log
4. Resolve gaps	Take unclear rules, missing states and design questions to Product, UX, Engineering or business stakeholders.	Confirmed decisions / open questions
5. Make delivery-ready	Translate confirmed behaviour into requirements, stories, AC and UAT coverage.	Refinement-ready backlog

3. Legacy-to-modern gap analysis

ID	Existing behaviour	Modern design / gap	BA assessment	Decision
GAP-01	Action is visible only to users with a specific permission.	Design shows the action without an obvious permission state.	Permission is a product rule, not a legacy layout choice.	Preserve rule; add permission AC.
GAP-02	User navigates across multiple pages to complete one task.	Modern design consolidates the task into one experience.	Extra navigation appears to be a legacy UI constraint.	Redesign; preserve underlying validations.
GAP-03	System warns before an irreversible action.	New design shows the action but no confirmation state.	Safeguard is still required even if UI treatment changes.	Preserve intent; UX may change.
GAP-04	Existing record contains a field not represented in redesign.	No replacement field or derived value is shown.	Cannot assume obsolete; downstream use must be checked.	Open question.

ID	Existing behaviour	Modern design / gap	BA assessment	Decision
GAP-05	Legacy workflow supports records created under earlier product behaviour.	Design demonstrates only newly created records.	Existing data needs an explicit compatibility path.	Add existing-data scenario.
GAP-06	Error is shown after a dependent service rejects an update.	Design shows only successful completion.	Failure state is missing from static design.	Add error behaviour and recovery AC.

4. Requirement decisions

ID	Requirement / decision	Source	Status
FR-01	The modernized workflow shall enforce the same confirmed role/permission restrictions unless a change is explicitly approved.	GAP-01	Confirmed
FR-02	The modernized workflow may consolidate legacy navigation, provided required validations and resulting data remain equivalent.	GAP-02	Confirmed
FR-03	Irreversible actions shall require an explicit safeguard before completion.	GAP-03	Confirmed
OQ-01	Confirm whether the legacy field in GAP-04 remains required by reporting, integrations, or downstream processes.	GAP-04	Open
FR-04	Existing records created before modernization shall remain viewable and usable without requiring manual recreation.	GAP-05	Confirmed
FR-05	When a dependent operation fails, the user shall receive an actionable error and the product shall not present the transaction as successfully completed.	GAP-06	Confirmed

5. Example story and acceptance criteria

US-01 - Complete the task in the modernized experience

As an authorized user, I want to complete the existing business task through the redesigned workflow so that I can achieve the same business outcome with a clearer, more efficient experience.

AC-01 - Permission: Given the user does not have the required permission, when the modernized experience is loaded, then the restricted action is not available and cannot be completed through an alternate path.

AC-02 - Existing data: Given a record was created under the legacy workflow, when it is opened in the modernized experience, then supported existing data is represented correctly without requiring re-entry.

AC-03 - Validation: Given required information is missing or invalid, when the user attempts to complete the task, then completion is prevented and the user is told what needs correction.

AC-04 - Failure: Given a dependent operation fails, when the transaction is submitted, then the user sees an actionable error and the record is not presented as successfully completed.

AC-05 - Safeguard: Given the action is irreversible, when the user initiates it, then the system requires explicit confirmation before the action is committed.

6. Open questions / design review log

ID	Question	Why it matters	Owner	Status
OQ-01	Is the legacy field still consumed by reporting, integration, or another workflow?	Removing a visually minor field may break downstream behaviour.	Product / Eng	Open
OQ-02	Should the modern experience preserve the same warning text or only the underlying confirmation behaviour?	Separates business safeguard from UI copy.	Product / UX	Open
OQ-03	How should historical records with values no longer creatable in the new workflow be displayed?	Modernization must account for old data, not only new records.	Product	Open

7. Traceability into validation

Gap / rule	Requirement	Validation coverage
Role restriction missing from design	FR-01	Permission AC + negative UAT scenario
Legacy navigation consolidated	FR-02	Happy path + validation regression

Gap / rule	Requirement	Validation coverage
Irreversible action safeguard	FR-03	Confirmation UAT
Existing-record compatibility	FR-04	Legacy-data UAT
Missing failure state	FR-05	Dependent-service failure UAT

BA takeaway: modernization analysis is not a pixel-by-pixel comparison. The goal is to preserve the business intent that still matters, challenge behaviour that exists only because of the legacy experience, and make gaps visible before Engineering has to discover them during implementation.