

Dynamic Project Management Board — Micro Frontends

Tailored User Stories (Card Style)

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Contents

A. Board View Micro Frontend

Epic / Feature	Board Configuration
Business Value	Establish workflow visualization with enforced WIP to reduce overload and cycle time
Priority / Estimate	Priority: Must SP: 3
Persona	Board Admin
Dependencies	Build tooling, column schema, policy checks
Assumptions / Risks	Duplicate names avoided; risk of initial misconfiguration mitigated with rename/archive

Story As a Board Admin, I want to Create Columns & Define WIP Limits so that Establish workflow visualization with enforced WIP to reduce overload and cycle time.

Non-Functional Performance Security Reliability Accessibility

Acceptance Criteria (BDD)

Scenario Happy path

Given an empty board is available

When I add a column named *In Progress* and set WIP=3

Then the column appears; WIP badge displays; reorder persists after refresh

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Schema: column model (id, name, order, wipLimit, archivedAt).
- UI: header actions (Add, Rename, Reorder via drag, Archive).
- Persist: POST/PUT/PATCH endpoints or federated API contract.
- Validation: prevent duplicates within a board; soft delete columns.
- WIP indicator: visual badge and ARIA announcement on exceed.

Epic / Feature	Card Movement
Business Value	Fast status changes with optimistic updates to improve collaboration
Priority / Estimate	Priority: Must SP: 5
Persona	Team Member
Dependencies	Server PATCH for status; event bus for broadcasts
Assumptions / Risks	WIP enforcement is advisory; rollback on failure to avoid inconsistency

Story As a Team Member, I want to Drag-and-Drop Cards Across Columns so that Fast status changes with optimistic updates to improve collaboration.

Non-Functional Performance Reliability Accessibility

Acceptance Criteria (BDD)

Scenario Optimistic update

Given a card is in *Todo*

When I drop it in *In Progress*

Then status updates immediately; on failure the UI rolls back with an error

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Integrate drag library with keyboard support (Space/Enter to pick/place).
- Optimistic mutation and rollback logic.
- PATCH /cards/{id} status change.
- Real-time broadcast to other clients.

Epic / Feature	Discoverability
Business Value	Quickly surface relevant work for stakeholders; sharable default views
Priority / Estimate	Priority: Should SP: 5
Persona	Product Manager
Dependencies	Saved views API; permissions
Assumptions / Risks	Links need stability across releases; avoid leaking private filters

Story As a Product Manager, I want to Board Filters & Saved Views so that Quickly surface relevant work for stakeholders; sharable default views.

Non-Functional Performance Security Reliability Accessibility

Acceptance Criteria (BDD)

Scenario Saved view

Given filters are applied

When I click “Save View” and share the link

Then others opening the link see the same filters if they have access

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Filter builder component; URL-encoded query state.
- Saved views API (create/update/delete, permissions).
- Share links with short IDs and access checks.

Epic / Feature	Performance
Business Value	Maintain smooth scrolling on columns with hundreds of cards
Priority / Estimate	Priority: Must SP: 8
Persona	Team Member
Dependencies	Virtualization library; measurement utilities
Assumptions / Risks	Risk of jank on resize; recycle DOM nodes

Story As a Team Member, I want to High-Density Virtualized Card List so that Maintain smooth scrolling on columns with hundreds of cards.

Non-Functional Performance Reliability

Acceptance Criteria (BDD)

Scenario Virtualized scroll

Given 1,500 cards exist in a column

When I scroll continuously

Then frames remain \geq 50 FPS; virtualization recalculates on resize

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Windowed list + item measurement; shimmer placeholders for offscreen items.
- Prefetch next viewport page; recycle DOM nodes.
- Performance budget doc and profiler checkpoints.

Epic / Feature Accessibility

Business Value Enable efficient mouseless use and screen reader support

Priority / Estimate Priority: Must SP: 3

Persona Keyboard/Screen Reader User

Dependencies Shortcut map; ARIA roles; focus management

Assumptions / Risks Accessibility regressions prevented via automated checks

Story As a Keyboard/Screen Reader User, I want to Keyboard Navigation & A11y so that Enable efficient mouseless use and screen reader support.

Non-Functional Accessibility Reliability

Acceptance Criteria (BDD)

Scenario Keyboard flow

Given focus is on a card

When I use Arrow keys and shortcuts

Then focus moves appropriately; quick edit opens with “E”; actions are announced

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Focus ring management; roving tabindex.
- ARIA roles for lists, items, and drag regions.
- Keyboard help overlay; automated a11y tests.

Epic / Feature	Visualization
Business Value	Scan workload distribution via lane grouping
Priority / Estimate	Priority: Could SP: 3
Persona	Scrum Master
Dependencies	Group-by transformer; totals per lane
Assumptions / Risks	Consistency maintained under concurrent updates

Story *As a Scrum Master, I want to Swinlanes (Group by Assignee/Priority) so that Scan workload distribution via lane grouping.*

Non-Functional Performance Reliability

Acceptance Criteria (BDD)

Scenario Lane toggle

Given a board is open

When I toggle swimlanes by Assignee

Then columns render rows per assignee; filters remain respected

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Group-by transformer with virtualization across lanes.
- Lane headers with totals and collapse/expand.
- Update counts on events.

B. Task Details Micro Frontend

Epic / Feature	Task Viewer
Business Value	Quick context without leaving the board via modal/side panel
Priority / Estimate	Priority: Must SP: 3
Persona	Team Member
Dependencies	Router integration; deep link patterns
Assumptions / Risks	Return focus to invoking card; ensure responsive layout

Story *As a Team Member, I want to Open Task in Modal/Side Panel so that Quick context without leaving the board via modal/side panel.*

Non-Functional Performance Accessibility Reliability

Acceptance Criteria (BDD)

Scenario Open panel

Given a card exists

When I click the card or navigate to /task/{id}

Then panel opens with title, status, assignee, tags, due date

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Router state + deep linking.
- Fetch task + relations; skeleton loading.
- Close/escape handling and focus management.

Epic / Feature	Task Editing
Business Value	Keep task details accurate with markdown preview
Priority / Estimate	Priority: Must SP: 5
Persona	Team Member
Dependencies	PATCH endpoints; sanitizer
Assumptions / Risks	Prevent XSS via markdown; enforce CSP

Story *As a Team Member, I want to Edit Core Fields & Markdown Description so that Keep task details accurate with markdown preview.*

Non-Functional Security Reliability Performance

Acceptance Criteria (BDD)

Scenario Inline edit

Given edit mode is enabled

When I update title/status and toggle preview

Then changes save; markdown renders (headings, code, links)

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Inline editable fields with validation.
- Markdown editor with preview; sanitize HTML.
- Optimistic update and error handling.

Epic / Feature Task Structure

Business Value Track granular work through subtasks and checklists

Priority / Estimate Priority: Should SP: 5

Persona QA Engineer

Dependencies Subtask model; progress calc

Assumptions / Risks Concurrent edits must resolve deterministically

Story As a QA Engineer, I want to Checklists & Subtasks so that Track granular work through subtasks and checklists.

Non-Functional Reliability Performance

Acceptance Criteria (BDD)

Scenario Progress

Given a task exists

When I add subtasks and mark items complete

Then parent shows progress % on card and panel

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Subtask CRUD and ordering.
- Checklist component with keyboard support.
- Progress calculation and display.

Epic / Feature Collaboration

Business Value Enable in-context collaboration via mentions and uploads

Priority / Estimate Priority: Should SP: 3

Persona Developer

Dependencies Mention typeahead; upload pipeline

Assumptions / Risks GDPR/PII controls for images and text

Story As a Developer, I want to Comments with @Mentions & Attachments so that Enable in-context collaboration via mentions and uploads.

Non-Functional Security Reliability Performance

Acceptance Criteria (BDD)

Scenario Mention & upload

Given the comment box is focused

When I type @ and select a user; I upload a file

Then mention resolves and notifies; file appears with preview/download

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Rich comment input with typeahead.
- Upload component with progress; resumable on blips.
- Webhooks to Notifications for mentions.

Epic / Feature Task Relationships

Business Value Coordinate sequencing and avoid rework

Priority / Priority: Could SP: 3

Estimate

Persona Project Manager

Dependencies Relation types blocks/blockedBy/duplicateOf/relatesTo

Assumptions / Risks Integrity checks to prevent circular relations

Story As a Project Manager, I want to Relations: Dependencies, Duplicates, Links so that Coordinate sequencing and avoid rework.

Non-Functional Reliability

Acceptance Criteria (BDD)

Scenario Relations

Given a task is open

When I add a “blocked by” relation and a duplicate link

Then badges show with tooltips; both tasks cross-link

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Badges with tooltips and click-through.
- Relation CRUD and integrity checks.
- Analytics hook to exclude blocked time (later).

C. Analytics Dashboard Micro Frontend

Epic / Feature	Core Charts
Business Value	Forecast capacity with completed-per-week and sprint velocity
Priority / Estimate	Priority: Should SP: 5
Persona	Engineering Manager
Dependencies	Aggregation API; chart components
Assumptions / Risks	Timezone/locale aware bucketing; export options

Story *As a Engineering Manager, I want to Throughput & Velocity Charts so that Forecast capacity with completed-per-week and sprint velocity.*

Non-Functional Performance Accessibility Reliability

Acceptance Criteria (BDD)

Scenario Throughput over 12 weeks

Given a date range is selected

When I choose last 12 weeks

Then bar chart renders weekly totals; velocity shows points per sprint when enabled

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Completed tasks by week aggregation.
- Chart export (PNG/CSV); data table for screen readers.
- Access control by board.

Epic / Feature	Flow Metrics
Business Value	Spot variability and bottlenecks using distributions and percentiles
Priority / Estimate	Priority: Must SP: 8
Persona	Process Lead
Dependencies	Event timestamps per status; histogram/scatter charts
Assumptions / Risks	Outlier toggles should recompute metrics accurately

Story *As a Process Lead, I want to Lead & Cycle Time Analysis so that Spot variability and bottlenecks using distributions and percentiles.*

Non-Functional Performance Reliability

Acceptance Criteria (BDD)

Scenario Cycle time P50/P85/P95

Given statuses are selected

When I compute cycle time from “In Progress” to “Done”

Then percentiles display; outlier toggle recomputes

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Cycle time computation service.
- Charts for histogram and scatter.
- Validation against sample dataset.

Epic / Feature

Flow Metrics

Business Value

Monitor WIP stability across statuses over time

Priority /

Priority: Should SP: 5

Estimate

Scrum Master

Dependencies

Daily snapshots or backfilled timeseries

Assumptions / Risks

Colorblind-safe palette and print-friendly mode

Story *As a Scrum Master, I want to Cumulative Flow Diagram (CFD) so that Monitor WIP stability across statuses over time.*

Non-Functional

Performance Accessibility

Acceptance Criteria (BDD)

Scenario 90-day CFD

Given a board is selected

When I view CFD for last 90 days

Then stacked areas show counts per status; toggling a status updates chart and legend

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Timeseries generation from events.
- Stacked area chart with hover and legend.
- Export and print styles.

Epic / Feature

Insights

Business Value

Raise automated flags when thresholds are exceeded

Priority /

Priority: Could SP: 3

Estimate

Delivery Lead

Dependencies

Rule engine for WIP% and stagnation hours

Assumptions / Risks

False positives must be < 5% on benchmark

Story *As a Delivery Lead, I want to Bottleneck Detector & WIP Alerts so that Raise automated flags when thresholds are exceeded.*

Non-Functional

Reliability Performance

Acceptance Criteria (BDD)

Scenario WIP threshold

Given WIP limit=3

When a column has 5 items for > 24h

Then an alert appears and links to offending items

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Rule engine with thresholds and tuning.
- Alert list and drill-through.
- Push summaries to Notifications.

Epic / Feature Reporting

Business Value Deliver scheduled PDFs/CSVs with key metrics securely

Priority / Estimate Priority: Could SP: 5

Persona Executive

Dependencies Report templates; scheduler; secure links

Assumptions / Risks Role-restricted; links expire in 7 days

Story As a Executive, I want to Stakeholder Reports & Scheduling so that Deliver scheduled PDFs/CSVs with key metrics securely.

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Weekly delivery

Given a saved report exists

When I schedule weekly delivery

Then recipients receive the email with attachments; restricted boards are excluded

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Render reports; email via trusted provider.
- DMARC/DKIM alignment; unsub links and GDPR compliance.
- Job logs and failure notifications.

D. User Management Micro Frontend

Epic / Feature	Access Control
Business Value	Control who can see and modify boards via role assignment
Priority / Estimate	Priority: Must SP: 3
Persona	Org Admin
Dependencies	Invite flow; tokenized links; role matrix
Assumptions / Risks	Audit all grants/revokes with actor and timestamp

Story *As a Org Admin, I want to Invite Members & Assign Roles so that Control who can see and modify boards via role assignment.*

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Invitation

Given an email address is provided

When I send an invite with a role

Then the user receives a link to join; role takes effect immediately on acceptance

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Invite flow with tokenized links and expiry.
- Role definitions and policy checks across MFEs.
- Audit log view.

Epic / Feature	Access Control
Business Value	Enforce governance for create/edit/move/delete actions
Priority / Estimate	Priority: Must SP: 5
Persona	Board Admin
Dependencies	Policy matrix (role × action); server enforcement
Assumptions / Risks	No client-only enforcement; cache policy checks

Story *As a Board Admin, I want to Board-Level Permissions so that Enforce governance for create/edit/move/delete actions.*

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Policy gating

Given a Contributor lacks column-edit rights

When they view the board

Then column actions are disabled/hidden; attempted move is blocked with rationale

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

Definition of Done: All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Policy matrix and conditional rendering.
- Server-side checks; client flags driven by policy.
- E2E tests for blocked actions.

Epic / Feature Identity

Business Value Centralize authentication and provisioning

Priority / Estimate Priority: Should SP: 8

Persona IT Admin

Dependencies OIDC/SAML config UI; SCIM jobs

Assumptions / Risks Break-glass admin accounts for IdP failures

Story As a IT Admin, I want to SSO Integration (OIDC/SAML) so that Centralize authentication and provisioning.

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario SSO login

Given OIDC config is enabled

When a user signs in

Then authentication occurs via IdP; SCIM deprovision revokes access within 15 minutes

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/ally checks; Docs updated; Deployed flagged.

Tasks

- Metadata upload and validation.
- SCIM sync jobs; deprovision hooks.
- Admin alerts on failures.

Epic / Feature Governance

Business Value Restrict edits to sensitive fields and record audits

Priority / Estimate Priority: Should SP: 5

Persona Compliance Lead

Dependencies Field policy registry; audit trail

Assumptions / Risks PII masking where required

Story As a Compliance Lead, I want to Field-Level Permissions so that Restrict edits to sensitive fields and record audits.

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Restricted field

Given a field is restricted

When a user without rights attempts to edit

Then field renders read-only; change attempts are rejected and logged

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Field policy registry and UI enforcement.
- Audit emission on changes.
- Summaries available to Analytics.

Epic / Feature Collaboration

Business Value Share boards with teams and manage access at scale

Priority / Estimate Priority: Could SP: 3

Persona Team Lead

Dependencies Team directory; share dialog; membership listeners

Assumptions / Risks Propagation latency \leq 5 minutes across MFEs

Story As a Team Lead, I want to Team & Board Sharing so that Share boards with teams and manage access at scale.

Non-Functional Reliability

Acceptance Criteria (BDD)

Scenario Share with team

Given a team is selected

When I share a board with role=Viewer

Then all members can view; membership changes update access within 5 minutes

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Share dialog with search and team selection.
- Membership listeners to update effective permissions.
- Board view permission enforcement.

E. Notifications Micro Frontend

Epic / Feature	Realtime UX
Business Value	Stay aware of changes without losing context
Priority / Estimate	Priority: Must SP: 3
Persona	Any User
Dependencies	WebSocket/SSE client; event bus
Assumptions / Risks	Rate limit to avoid noise; screen reader announcements

Story *As a Any User, I want to Real-Time Toasts for Key Events so that Stay aware of changes without losing context.*

Non-Functional Performance Accessibility Reliability

Acceptance Criteria (BDD)

Scenario Toast on card move

Given another user moves a card while I'm viewing the board

When an event is received

Then a toast appears with a deep link to the card

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

• **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Event bus integration.
- Toast queue with dedupe and focus management.
- Test end-to-end latency \leq 2s p95.

Epic / Feature	Audit & Review
Business Value	Audit changes and review progress by actor/action/date/board
Priority / Estimate	Priority: Should SP: 5
Persona	Project Manager
Dependencies	Feed API with pagination and filters
Assumptions / Risks	Immutable event storage once written

Story *As a Project Manager, I want to Activity Feed with Filters so that Audit changes and review progress by actor/action/date/board.*

Non-Functional Performance Reliability

Acceptance Criteria (BDD)

Scenario Filter feed

Given filters are set to action='status-changed'

When I scroll the list

Then only matching entries show; older entries load as I scroll

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set.

• **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Endpoint with pagination and indexes.
- UI with saved filters and deep links.
- Access-scoped results.

Epic / Feature Channels

Business Value Immediate emails for mentions and daily digest of changes

Priority / Estimate Priority: Could SP: 3

Persona Stakeholder

Dependencies Templates; scheduler; unsubscribe links

Assumptions / Risks Comply with GDPR and CAN-SPAM; DMARC aligned

Story As a Stakeholder, I want to Email & Digest Notifications so that Immediate emails for mentions and daily digest of changes.

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Digest

Given preference is set to Daily 9am

When the scheduler runs

Then a summary email is delivered with links to items

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/ally checks; Docs updated; Deployed flagged.

Tasks

- Localized templates (mention, digest).
- Scheduler for digests; secure downloads with expiry.
- Delivery monitoring and logs.

Epic / Feature Channels

Business Value Post board updates to team chat and provide slash commands

Priority / Estimate Priority: Should SP: 5

Persona Team Member

Dependencies OAuth install; outgoing webhooks; slash command endpoint

Assumptions / Risks Verify signing secrets; conform to rate limits

Story As a Team Member, I want to Slack/MS Teams Integrations so that Post board updates to team chat and provide slash commands.

Non-Functional Security Reliability

Acceptance Criteria (BDD)

Scenario Assignment message

Given a channel is connected

When a card is assigned to me
Then a message posts with a deep link; /board search returns results

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- App manifest and credentials.
- Webhook handlers and slash commands.
- Retry with backoff and signature verification.

Epic / Feature Personalization

Business Value Let users configure events and channels to minimize noise

Priority / Estimate Priority: Could SP: 5

Persona Any User

Dependencies Preferences storage; rule builder

Assumptions / Risks Prevent rule loops; sync across sessions within 5s

Story As a Any User, I want to Notification Preferences & Rules so that Let users configure events and channels to minimize noise.

Non-Functional Reliability Performance

Acceptance Criteria (BDD)

Scenario Preference toggle

Given preferences are open

When I disable “card moved” toasts and add a rule “due date change on my tasks → email”

Then I no longer see those toasts; emails trigger on rule

Definition of Ready: Persona clear; AC drafted; Dependencies known; Estimate set. • **Definition of Done:** All ACs pass; Tests green; Security/a11y checks; Docs updated; Deployed flagged.

Tasks

- Per-channel toggles; cached reads, debounced writes.
- Rule builder: conditions (actor, field, board, label) and actions (toast, email, webhook).
- Sandbox rule execution to avoid loops.