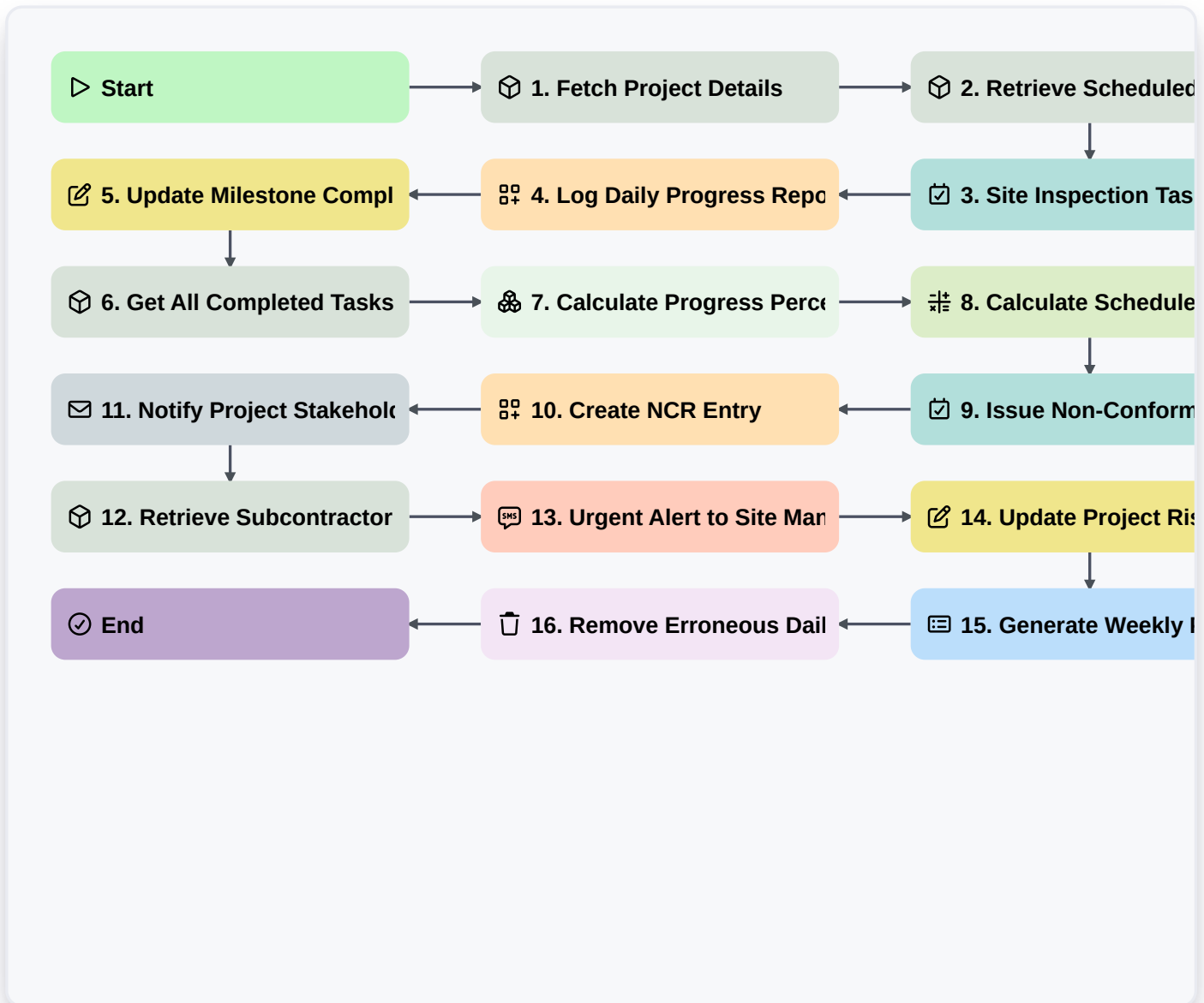


Construction Progress Monitoring Workflow



Start

Start of the Workflow/Process.

1. Fetch Project Details

Retrieve project metadata such as site location, project manager, and total budget from the Project Data Model.

2. Retrieve Scheduled Milestones

Fetch all planned milestone dates from the Project Schedule Data Model to compare against actual progress.

3. Site Inspection Task

Create a task for the Site Supervisor to perform a physical walkthrough of the construction site.

4. Log Daily Progress Report

Create a new entry in the Daily Log Data Model containing observations, weather conditions, and labor counts.

5. Update Milestone Completion Status

Update the 'Actual Completion Date' and 'Status' in the Milestone Data Model once a milestone is verified.

6. Get All Completed Tasks

Retrieve all completed tasks from the current work package to verify progress percentage.



7. Calculate Progress Percentage

Aggregate the weightage of completed tasks versus total tasks to calculate the overall physical progress %.

8. Calculate Schedule Variance

Subtract the 'Planned Completion Date' from the 'Actual Completion Date' to identify delays (Days Variance).

9. Issue Non-Conformance Report (NCR)

Create a high-priority task for the Quality Control Engineer if a site inspection fails certain criteria.

10. Create NCR Entry

Generate a new entry in the Quality Issues Data Model to document the specific non-conformance found.

11. Notify Project Stakeholders of Delay

Send an automated email to the Project Owner and Stakeholders if the Schedule Variance exceeds a specific threshold.

12. Retrieve Subcontractor Contact Info

Get contact details from the Vendor Data Model for the specific subcontractor responsible for the delayed work.

13. Urgent Alert to Site Manager

Send an SMS alert to the Site Manager regarding critical safety or progress blockers identified during inspection.

14. Update Project Risk Register

Update the 'Risk Level' or 'Impact Score' in the Risk Data Model based on the newly identified delay.

15. Generate Weekly Progress Report

Generate a comprehensive PDF/Dashboard report summarizing progress, delays, and upcoming milestones for the week.

16. Remove Erroneous Daily Log

Delete a duplicate or incorrectly submitted Daily Log entry from the Data Model.

End

End of the Workflow/Process.