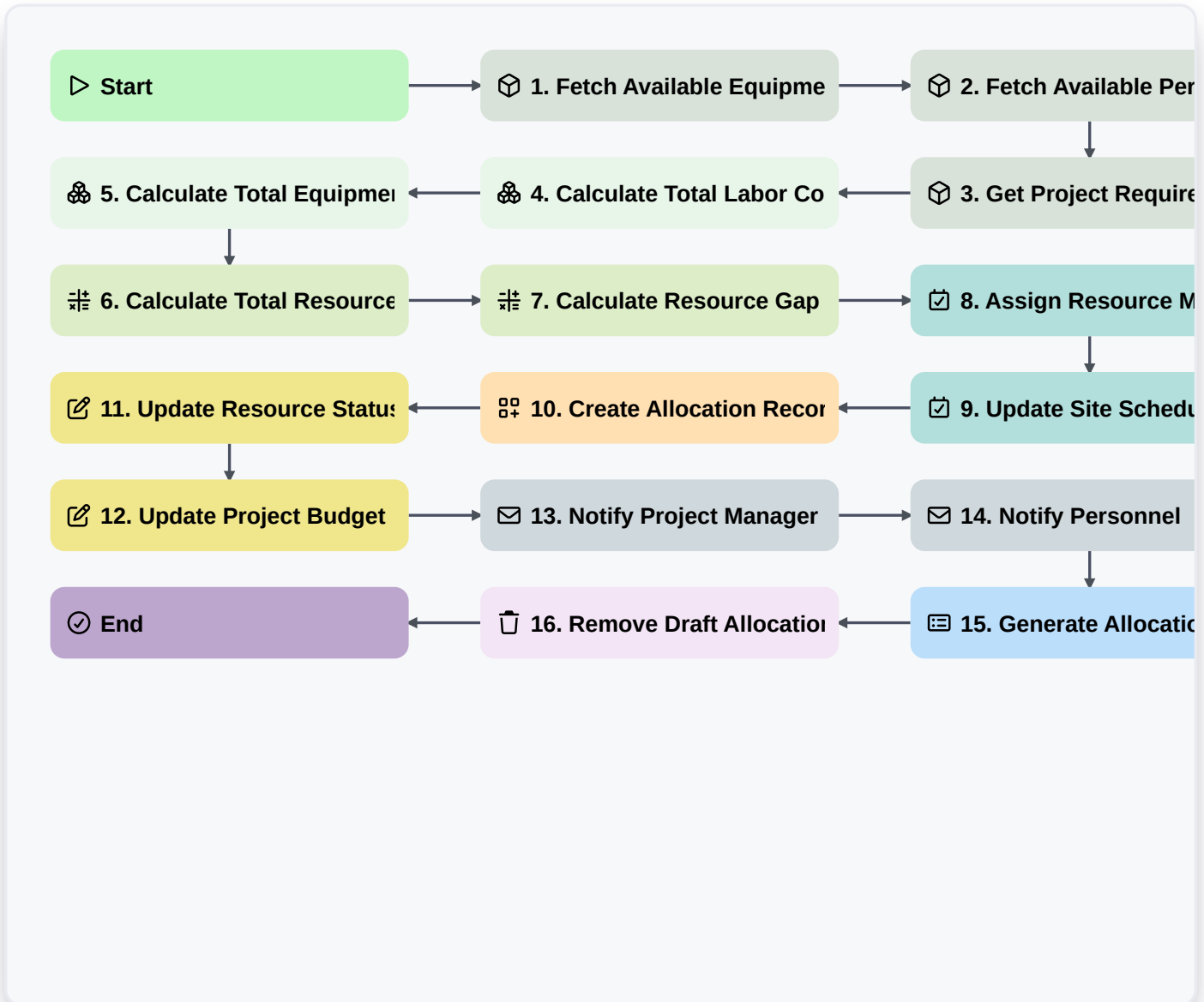


Construction Resource Allocation Process



▷ Start

Start of the Workflow/Process.

📦 1. Fetch Available Equipment

Retrieve all equipment entries from the Equipment Data Model that are currently marked as 'Available'.

📦 2. Fetch Available Personnel

Retrieve all staff entries from the Resource Data Model with the 'Available' status.

📦 3. Get Project Requirements

Get the specific resource requirements (hours, machinery, skillsets) from the active Construction Project entry.

🔗 4. Calculate Total Labor Cost

Sum the hourly rates of all selected personnel assigned to the project.

🔗 5. Calculate Total Equipment Cost

Sum the daily rental/usage costs of all selected machinery entries.

⚙️ 6. Calculate Total Resource Budget

Calculate the sum of Total Labor Cost and Total Equipment Cost to check against the project budget.



⚙️ 7. Calculate Resource Gap

Subtract total allocated hours from required project hours to identify under-allocation.

📅 8. Assign Resource Manager

Create a task for the Resource Manager to review and approve the proposed allocation.

📅 9. Update Site Schedule

Create a task for the Site Supervisor to adjust the construction timeline based on the allocated resources.

📄 10. Create Allocation Record

Create a new entry in the 'Resource Allocation' data model to formalize the assignment.

✍️ 11. Update Resource Status

Update the status of the selected Personnel and Equipment entries from 'Available' to 'Allocated'.

✍️ 12. Update Project Budget

Update the 'Committed Costs' field in the Project entry with the new allocation totals.

✉️ 13. Notify Project Manager

Send an email to the Project Manager confirming that the resources have been successfully allocated.

✉️ 14. Notify Personnel

Send an email to the assigned staff members regarding their new project assignment and schedule.

📄 15. Generate Allocation Summary Report

Create a PDF report summarizing the allocated resources, costs, and duration for the project archives.

🗑️ 16. Remove Draft Allocation

Delete the temporary/draft allocation entry if the approval process is rejected.

🏁 End

End of the Workflow/Process.