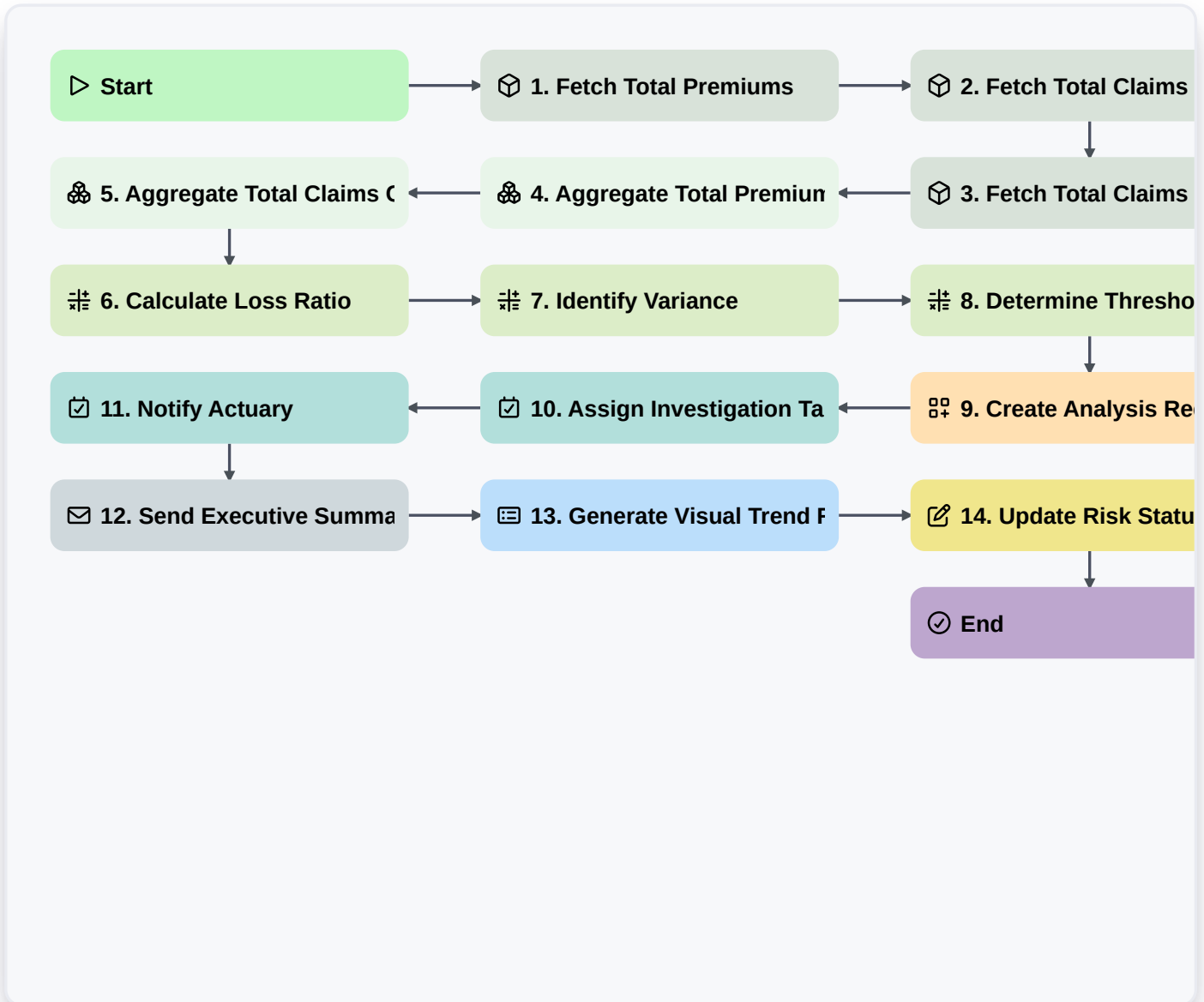


# Loss Ratio Analysis Process



## ▷ Start

Start of the Workflow/Process.

## 📦 1. Fetch Total Premiums

Retrieve all premium entries for the specified period from the Premium Data Model.

## 📦 2. Fetch Total Claims Paid

Retrieve all claims paid entries for the specified period from the Claims Data Model.

## 📦 3. Fetch Total Claims Outstanding

Retrieve all unpaid/reserved claim amounts from the Claims Data Model.

## 🔗 4. Aggregate Total Premium

Sum all premium entries to calculate the total earned premium.

## 🔗 5. Aggregate Total Claims Cost

Sum both paid and outstanding claims to determine the total incurred loss.

## 🔗 6. Calculate Loss Ratio

Execute formula:  $(\text{Total Incurred Loss} / \text{Total Earned Premium}) * 100$ .



## ⚙️ 7. Identify Variance

Calculate the difference between the current loss ratio and the target threshold (e.g., 60%).

## ⚙️ 8. Determine Threshold Breach

Logic check: If Loss Ratio > Target Threshold, return 'Breach'; else return 'Healthy'.

## 📄 9. Create Analysis Record

Create a new entry in the 'Loss Ratio Reports' data model containing the calculated metrics.

## 📅 10. Assign Investigation Task

If a breach is detected, create a task for the Underwriting Manager to investigate the spike in claims.

## 📅 11. Notify Actuary

Create a task for the Actuarial team to review the data accuracy.

## ✉️ 12. Send Executive Summary

Send an automated email to the CFO with the summary of the Loss Ratio results.

## 📊 13. Generate Visual Trend Report

Generate a visual report comparing this month's ratio against historical monthly trends.

## ✍️ 14. Update Risk Status

Update the 'Risk Profile' data model to reflect 'High Risk' if the loss ratio exceeds a critical limit.

## 🏁 End

End of the Workflow/Process.