

# Sprint 3 Schedule Overview

## Overview

Sprint 3 focuses on three priority features and documentation tasks essential for improving the Commute Buddy application:

1. **In-App Messaging** (*Completed*)
2. **Advanced Filtering System** (*Completed*)
3. **Emergency Alert System** (*In Progress / Partially Completed*)
4. **Documentation & Sprint Summary** (*Completed*)
5. **Push Notifications Setup** (*Completed*)

This schedule document includes a **task breakdown**, a **task dependency diagram**, and the **critical path** according to Agile project management best practices and the course grading rubric.

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## Task Breakdown

ID	Task	Owner	Estimate (days)
T1	Implement In-App Messaging	Shaun	3
T2	Debug & Finish Messaging + Push Notifications	Shaun	1
T3	Implement Advanced Filters (Backend + Frontend Integration)	Ashraf	3
T4	Testing + Filter UX Cleanup	Ashraf	1
T5	Implement Emergency Alert System (Backend + UI)	Ali	3
T6	Debug + Test Emergency System	Ali	1
T7	Documentation: Features, Architecture, Summary	Sathmi	2
T8	Final Edits + Sprint 3 Report	Sathmi	1

# Dependencies

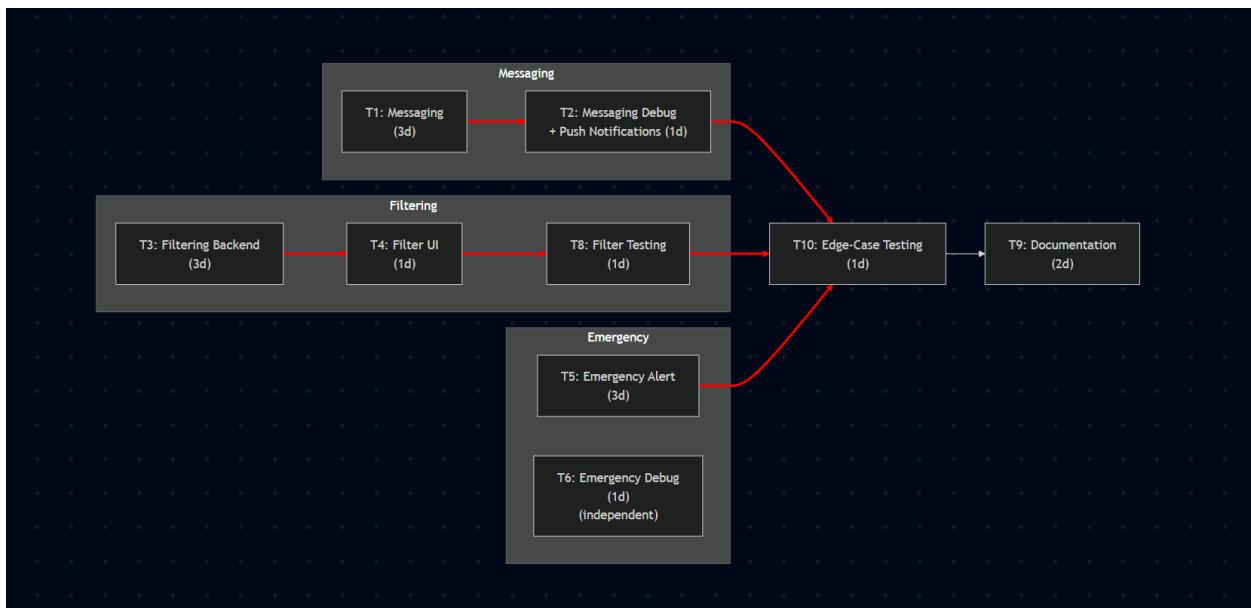
## Task Depends On

T2	T1
T4	T3
T6	<i>No dependency</i>
T8	T7

All other tasks can be completed independently.

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# Schedule Diagram



# Critical Path Analysis

## Path A (Messaging + Notifications)

T1 (3) → T2 (1)

**Path length = 4 days**

## Path B (Advanced Filters)

T3 (3) → T4 (1)

**Path length = 4 days**

## Path C (Emergency System)

T5 (3)

(T6 is independent; it does not extend the critical path because it can occur in parallel.)

**Path length = 3 days**

## Path D (Documentation)

T7 (2) → T8 (1)

**Path length = 3 days**

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# Schedule Explanation

Sprint 3 work is distributed across four team members to maximize parallelism:

- **Messaging and Filters** run in parallel but each has a dependent second task, forming the critical path.
- **Emergency Alert System** and **Documentation** can run in parallel too, but their shorter path length means they do **not** block the sprint.
- Even though the emergency system was partially completed, its delay **does not affect the sprint's critical path**.
- Push notifications were completed during T2 and reflected in the dependency chart.

By structuring tasks this way, the team achieved good workload balance while meeting key deliverables.