UNIFIED MODELLING LANGUAGE DIAGRAMS(BEHAVIORAL DIAGRAMS)

For

Road Repair and Tracking System

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1. Introduction

This document provides a detailed overview of the activity and state chart diagrams for the Road Repair and Tracking System (RRTS). These diagrams illustrate the workflow and state transitions of complaints within the system, from initial logging to final resolution, and are designed to aid in understanding system behavior for both developers and stakeholders.

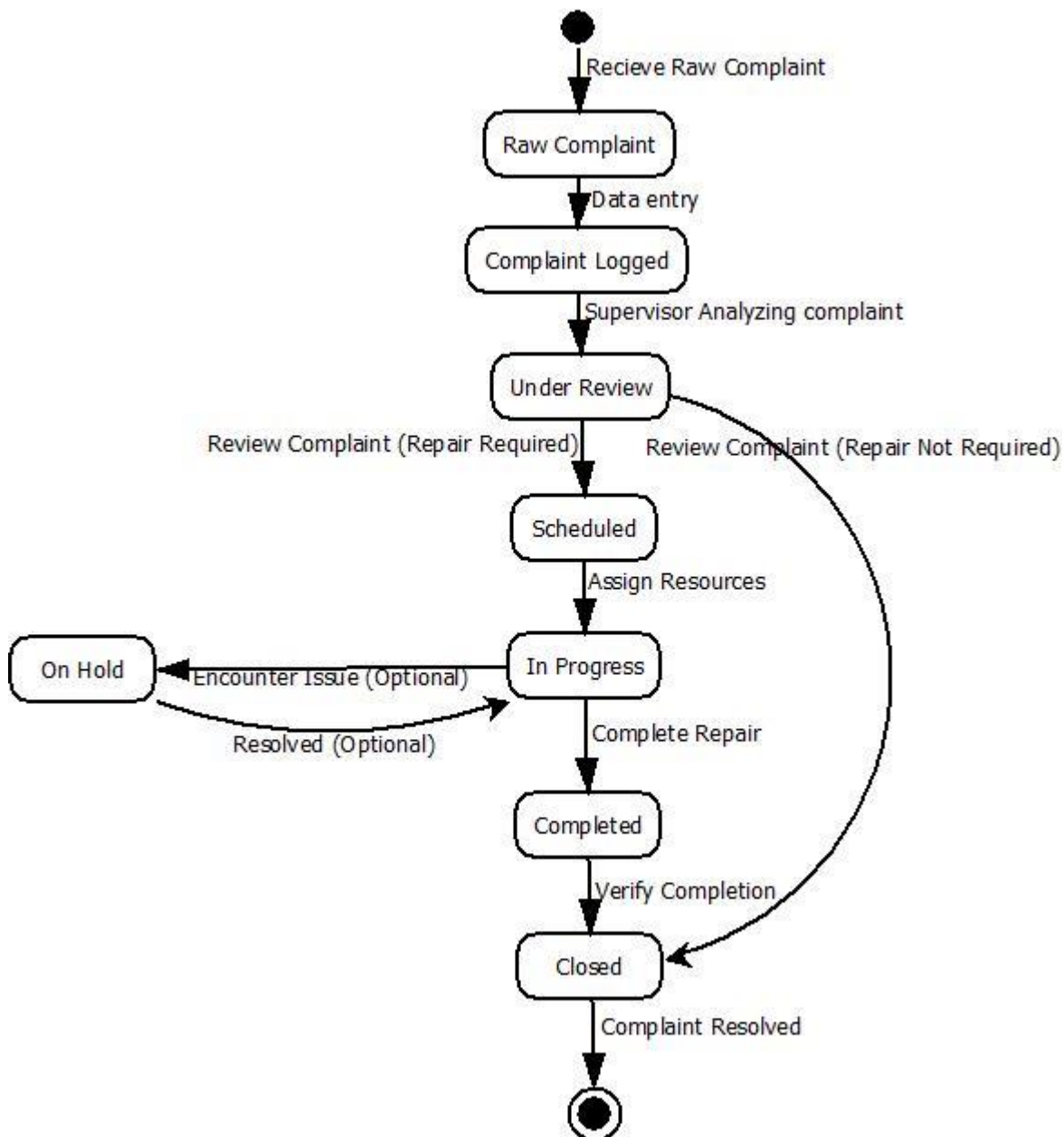The diagrams included in this document cover key processes in the RRTS, specifically focusing on complaint handling and repair tracking. The **activity diagram** represents the flow of actions within the system, while the **state chart** demonstrates the different states a complaint undergoes throughout its lifecycle.

2. Activity Diagram

The activity diagram for RRTS demonstrates the sequence of actions performed within the system to manage and resolve a road repair complaint. This includes interactions from complaint logging by the clerk to supervisor review, resource allocation, repair execution, and final complaint closure. The activity diagram provides a high-level view of the process flow, highlighting decision points, parallel processes, and potential hold states.

3. State Transition Chart

The state chart diagram illustrates the various states a complaint transitions through during its lifecycle in the RRTS. Starting from the initial "New Complaint" state, it follows the complaint as it is reviewed, scheduled, placed on hold if necessary, and finally resolved and closed. This diagram is essential for understanding how the system manages complaint states, ensuring that each complaint progresses systematically through the required stages to reach resolution.

4. Conclusion

The activity and state chart diagrams serve as essential tools for understanding the RRTS. The activity diagram captures the sequential flow of actions, clarifying the order of operations and decision-making points within the system. The state chart provides a complementary view, outlining the distinct states a complaint undergoes and detailing the system's response to various events. Together, these diagrams provide a comprehensive view of the RRTS process and complaint lifecycle, guiding development and helping ensure accurate implementation of complaint handling and resolution.