

NATION UNIVERSITY OF MODERN LANGUAGES



DEPARTMENT OF SOFTWARE ENGINEERING

DETAILED DESIGN DOCUMENT

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SUBJECT	SCD
SECTION	BSSE-A-AFTERNOON
SEMESTER	5th

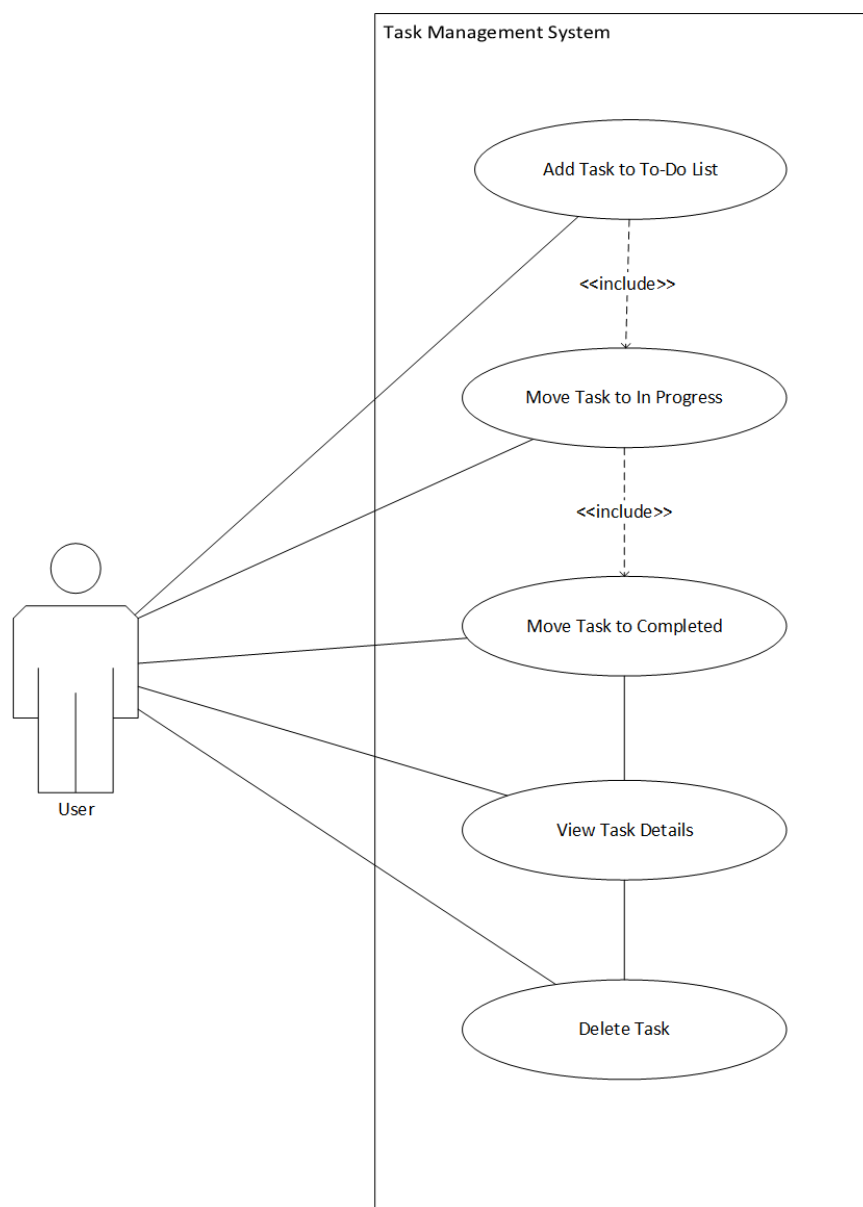
Task Management Application

Introduction:

The detailed design document provided offers a comprehensive overview of the proposed task management system, outlining its structure, interactions, and behavior. Here's a breakdown of the included diagrams and their significance.

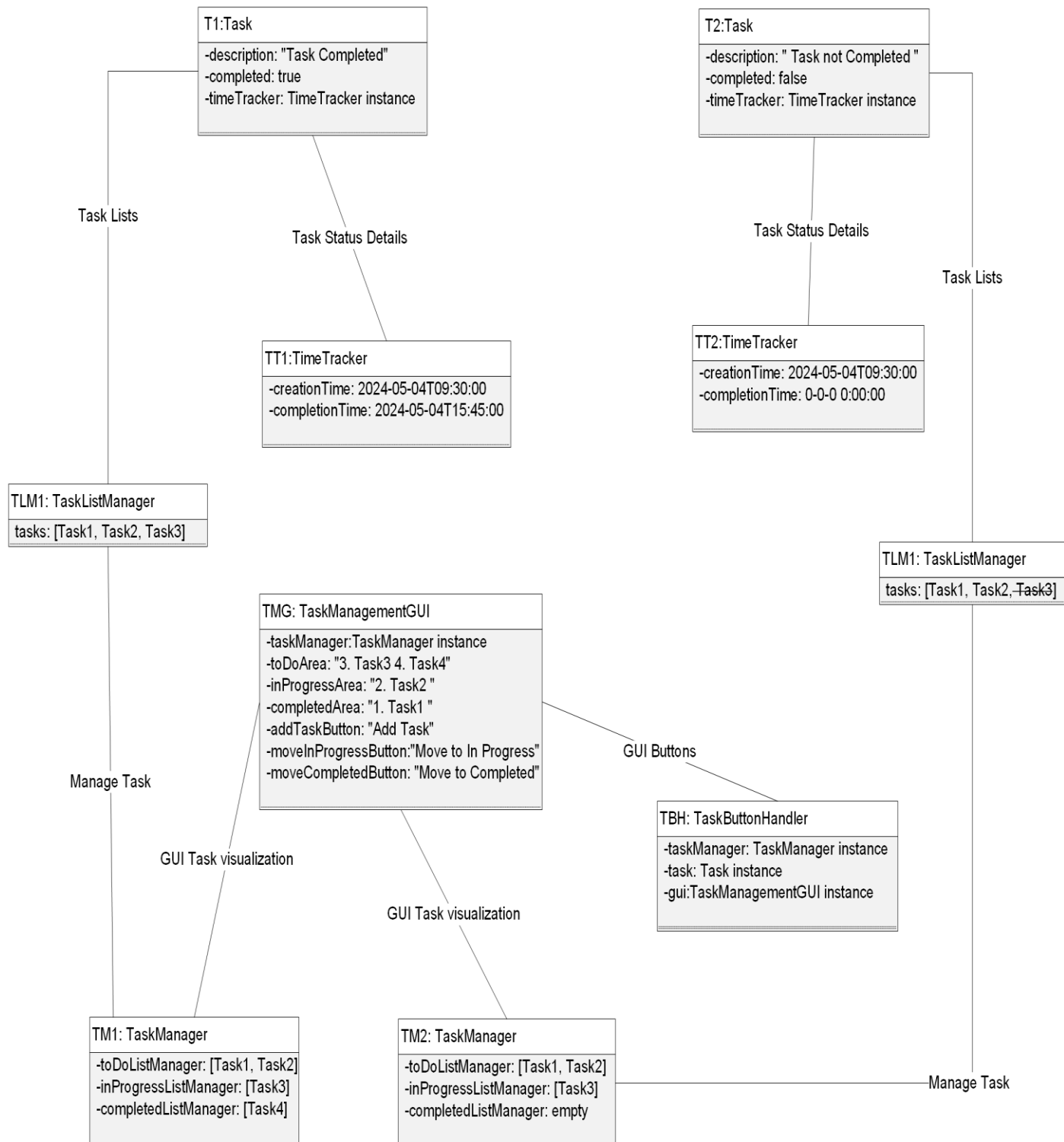
1. Use-case diagram:

This diagram provides a high-level overview of the system's functionality from the perspective of its users. It identifies various use cases or actions that users can perform and illustrates how they interact with the system to achieve their goals.



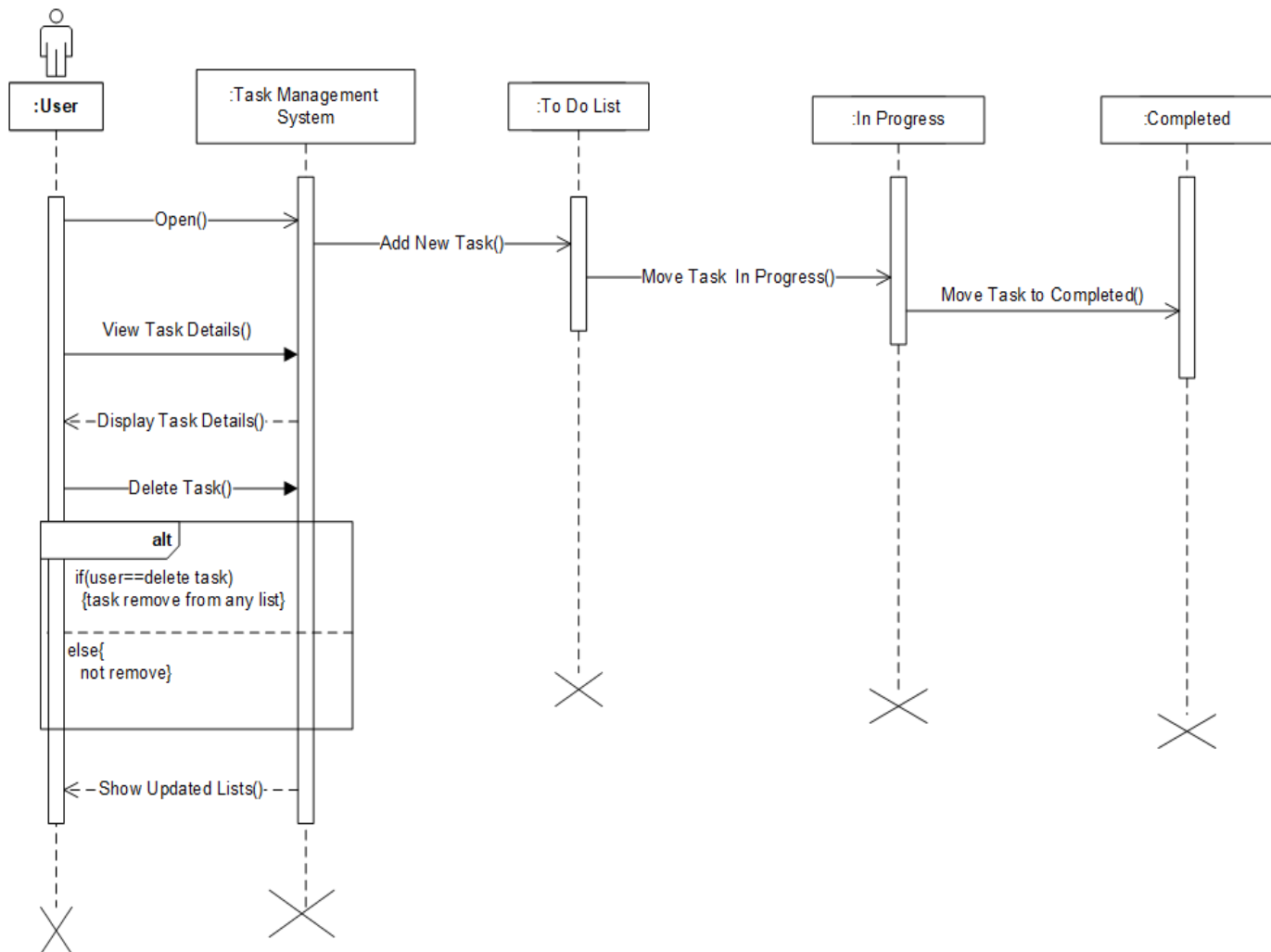
2. Object diagram:

This diagram depicts the static structure of the system, including the classes, objects, and their relationships. It helps in understanding the components of the system and how they are organized and interconnected.



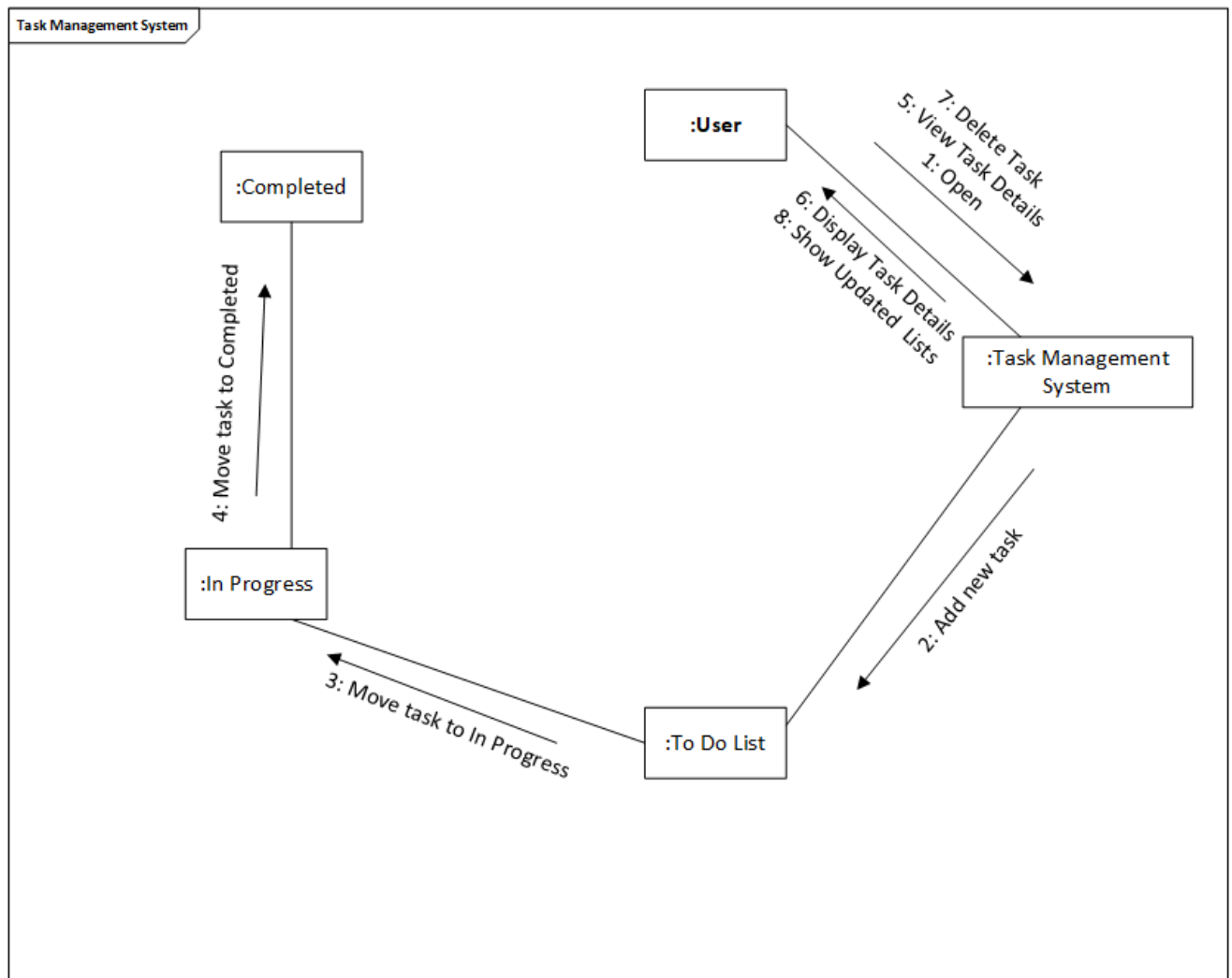
3. Sequence diagram:

Sequence diagrams describe the sequence of interactions between objects or components during a specific use-case scenario. They illustrate the flow of messages or actions between objects over time, showing the order in which they occur and the dependencies between them.



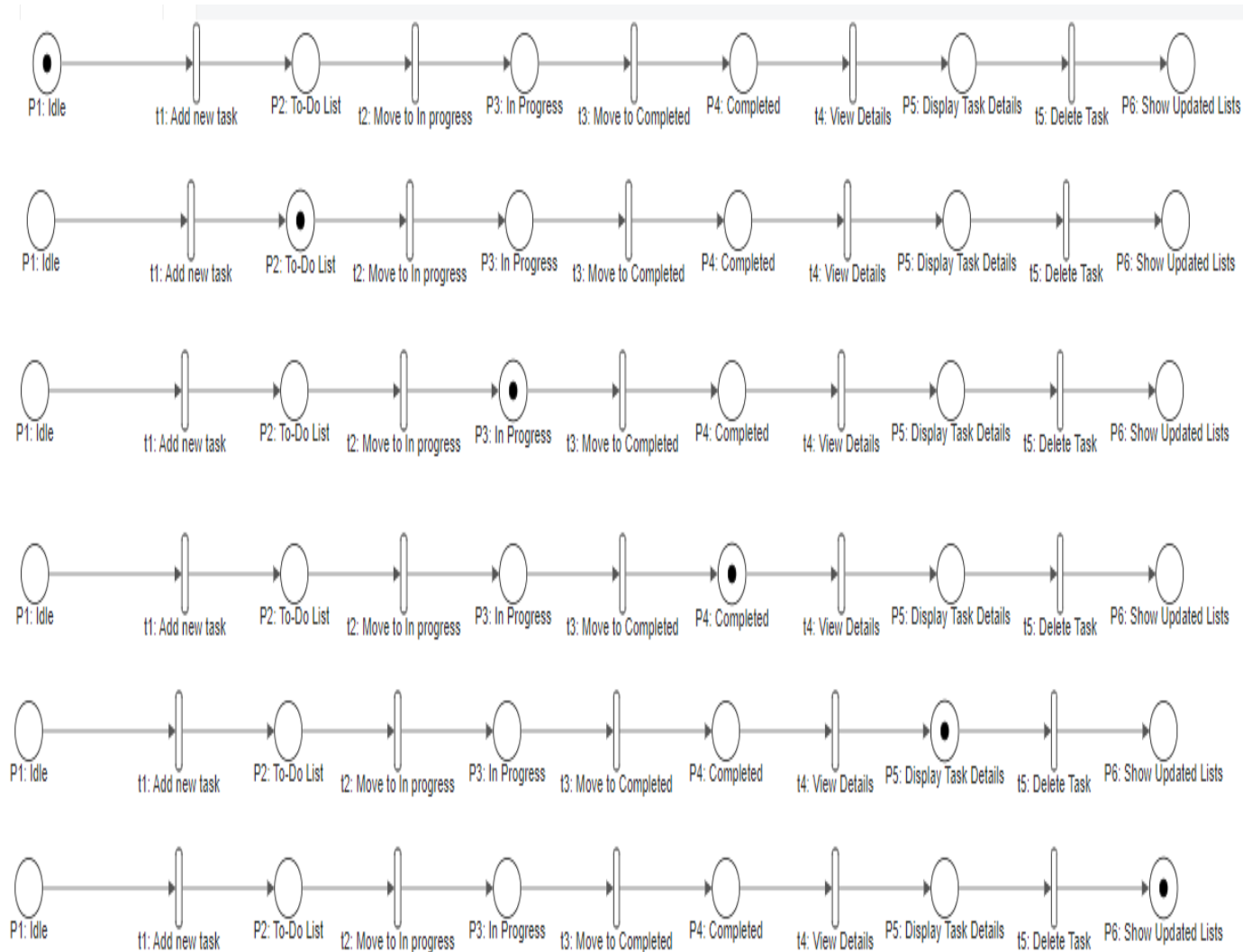
4. Communication diagram:

Communication diagrams provide a visual representation of the interactions between objects or components in the system, emphasizing message flow. They help in understanding how objects collaborate to accomplish tasks and exchange information.



5. Petri-Nets:

Petri Nets are used for modeling concurrency and synchronization aspects of the system. They depict states, transitions, and token movement, enabling analysis of the system's behavior in terms of parallelism, resource allocation, and synchronization.



Input Table

	P1	P2	P3	P4	P5	P6
t1	1	0	0	0	0	0
t2	0	1	0	0	0	0
t3	0	0	1	0	0	0
t4	0	0	0	1	0	0
t5	0	0	0	0	1	0

Output Table

	P1	P2	P3	P4	P5	P6
t1	0	1	0	0	0	0
t2	0	0	1	0	0	0
t3	0	0	0	1	0	0
t4	0	0	0	0	1	0
t5	0	0	0	0	0	1

Firing Table

	P1	P2	P3	P4	P5	P6
t0	1	0	0	0	0	0
t1	0	1	0	0	0	0
t2	0	0	1	0	0	0
t3	0	0	0	1	0	0
t4	0	0	0	0	1	0
t5	0	0	0	0	0	1

6. Timing Diagram:

Timing diagrams offer visual representations of timing requirements and constraints within the system. They illustrate the timing of events, message exchanges, and system responses, aiding in the analysis of real-time behavior and performance optimization.

