Phase II – Business Process Modeling

Project Title: Daily Habit and Goal Alarm System

1. Business Process Overview

The **Daily Habit and Goal Alarm System** is a personal productivity management tool designed to help users develop positive routines and achieve long-term objectives. The system allows users to define **daily habits** and **goals**, receive **alarms/reminders**, track **habit completion** and **goal progress**, and review **performance reports** over time.

The process is supported by a robust PL/SOL-based Oracle database that ensures accurate data capture, automation, and reporting. The system contributes to **Management Information Systems (MIS)** by enabling data-driven decision-making and improving users' self-discipline, time management, and productivity.

2. Scope of the Business Process

Process Name: Habit and Goal Management Work-flow

Objective: To facilitate routine formation and goal tracking through alarms, data logging, and MIS reports.

Inclusions:

- Registering users
- Adding habits and goals
- Setting alarms
- Logging habit and goal status
- Automated reminder and report generation

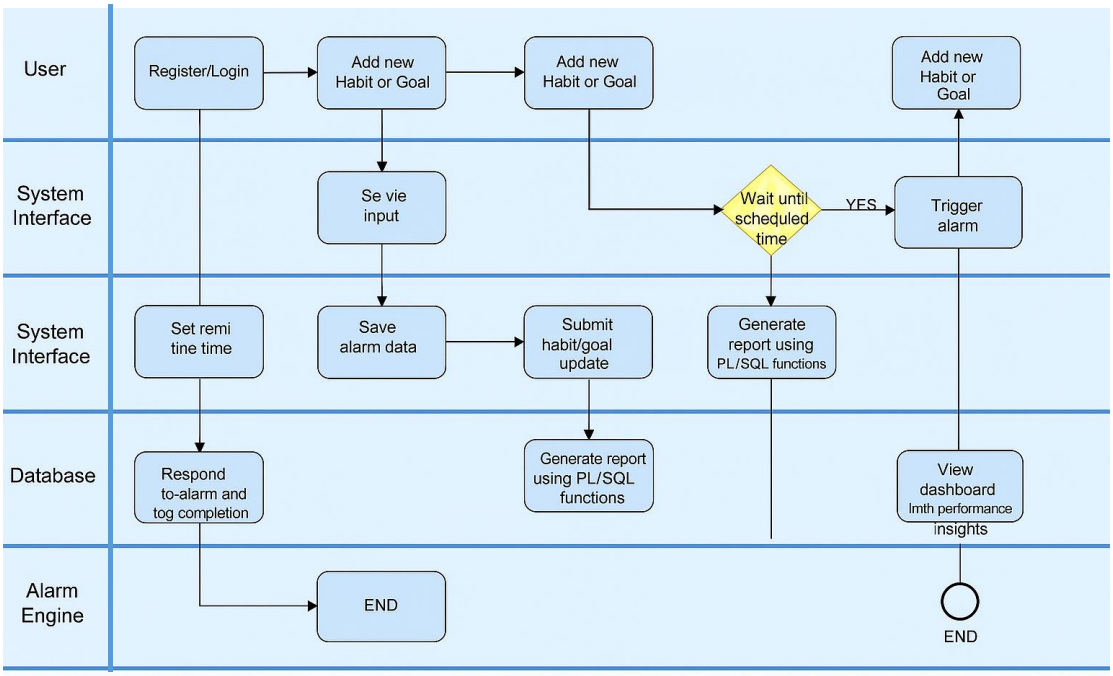
Exclusions:

- External device integration (like smartwatches)
- Third-party calendar syncing (e.g., Google Calendar)

3. Key Entities & Roles

Entity	Description
User	Registers, sets up habits and goals, receives notifications, and logs progress.
Habit	A recurring action the user wants to do daily (e.g., workout, study).
Goal	A specific outcome to achieve over time (e.g., lose 5kg in 2 months).
Alarm	Scheduled reminders to perform a habit or take action toward a goal.
Habit Log	A daily record indicating whether a habit was completed or missed.
Goal Status	Updates on goal progress and final outcome (achieved, in-progress, failed).

4. BPMN Diagram (Workflow Description)



Swimlanes:

- User: Interacts with the system by registering, adding habits/goals, responding to alarms, and viewing reports.
- System Interface: Manages data entry validation and communication between the user and the database.
- Database: Stores user information, habits, goals, alarms, and logs for tracking progress.
- Alarm Engine: Triggers notifications at scheduled times to remind users of their habits and goals.

BPMN Steps (with Swimlanes):

Step-by-Step Workflow

- **User Registers/Login** – The user accesses the system to set up their profile.
- **User Adds Habit or Goal** – Specifies what they aim to accomplish.
- **System Interface Validates Input** – Ensures correct data format.
- **Database Stores Habit/Goal Information** – Saves entries for tracking.
- **User Sets Reminder Time** – Defines when alarms should trigger.
- **System Interface Saves Alarm Data** – Validates and logs alarm settings.
- **Database Inserts Alarm Details** – Stores the reminder schedule.
- **Alarm Engine Waits & Triggers Alarm** – Activates at the set time.
- **User Responds to Alarm & Logs Completion** – Marks whether they completed a habit or progressed toward a goal.
- **System Interface Submits Update to Database** – Sends log updates.
- **Database Updates Habit Log or Goal Status** – Tracks progress.
- **System Interface Generates Report Using PL/SQL Functions** – Compiles insights on performance.
- **User Views Dashboard with Performance Insights** – Analyzes habit consistency and goal success.

5. MIS Benefits of the System

MIS Principle	How It's Implemented
Automation	Alarms are triggered automatically using stored schedules.
Data Accuracy	Inputs are validated and stored with constraints using PL/SQL.
Information Storage	Habit logs and goal statuses are securely stored in Oracle DB.
Reporting & Insights	PL/SQL procedures generate summaries (e.g., weekly goal completion rate).
Decision Support	Users analyze their dashboard to adapt strategies or routines.