

## **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

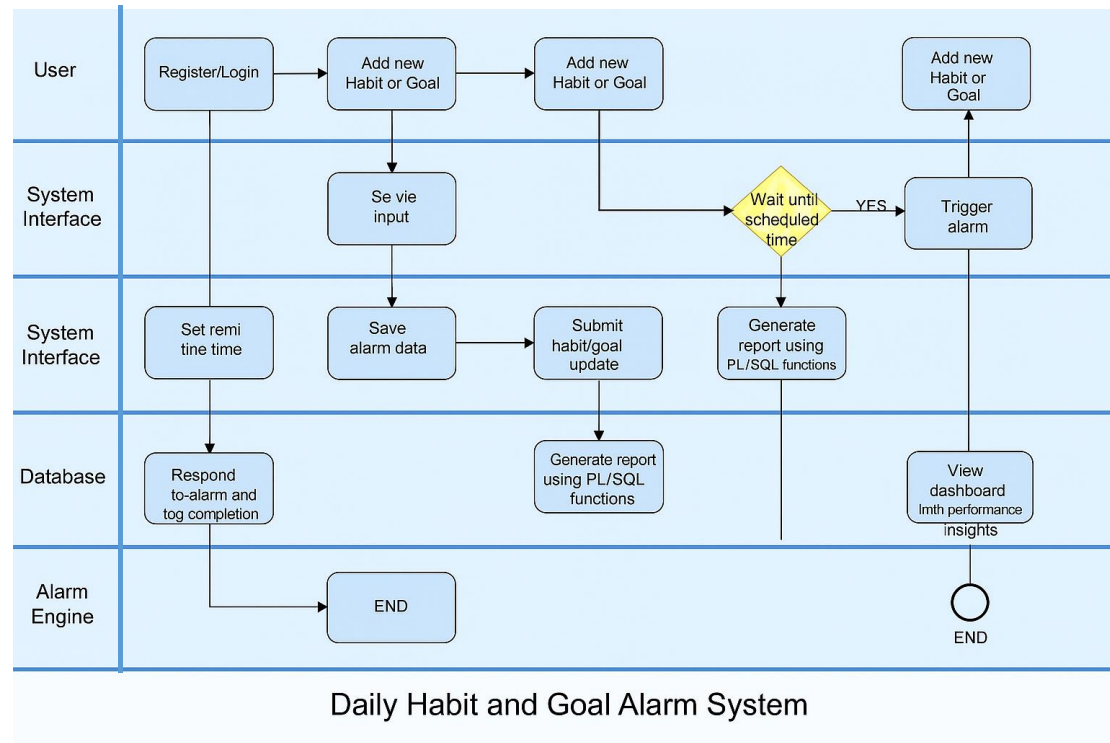
### Exclusions:

- 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.