**Problem Statement: Worker Management System with User-Based Authentication, Gender-Based Wages, Time-Period Reporting & Dynamic Filters**

In labour-intensive projects (like farm work, etc.), multiple users (e.g., family members or managers) often handle payments and worker coordination. To prevent confusion, maintain transparency, and automate calculation of wages, we need a centralized system that supports detailed tracking of **attendance, wages, gender-based pay**, and **user-level accountability**.

**Key Objectives:**

To develop a robust **Worker Management System** that supports:

* User-based login and secure authentication
* Gender-based wage calculation
* Filtering of workers based on name, gender, and time-period
* Transparent reports that show who paid how much and when
* Tracking of attendance and automatic wage calculation

**Core Functionalities**

**1. User Login & Account Management**

* Secure login with **username and password**
* **New account creation** for first-time users
* **Forgot password** recovery option

**2. Worker Registration**

* Add a new worker with:
  + Name
  + Gender (Male/Female)
  + Daily wage (default: ₹1000 for Male, ₹800 for Female)
  + Start date
  + Contact info

**3. Attendance Entry**

* Users can add **attendance by date**
* System automatically tracks **number of days worked**
* Attendance is **filterable by time-period**

**4. Payment Entry**

* Users can enter the amount they gave to each worker
* System logs:
  + **Which user gave how much**
  + **Date of payment**
* Supports **overpayment adjustments**

**5. Reporting & Filters (User Options for Output)**

Users can request the system to print the following outputs:

**Output Options:**

**A. List of All Workers (Names Only)**

* Shows a list of all workers who have been added.

**B. List of Workers by Time Period**

* User selects a time period (e.g., Jan 2024 – Mar 2024)
* Shows **only those workers** who worked during that time

**C. Filter by Gender**

* Print details of:
  + **All Male Workers**
  + **All Female Workers**

**D. Details of a Specific Worker**

* User selects a worker by **name**
* Output shows:
  + Gender
  + Start date
  + Attendance history
  + All payments made (with user and date)
  + Calculated wage (based on gender and attendance)
  + Total amount received
  + Pending amount
  + Overpaid amount (if applicable)

**E. Report for a Time Duration (With Year)**

* User selects a time period: e.g., **March 2025 – May 2025**
* For each worker who worked in that duration:
  + Total days worked
  + **Calculated total wage** (using ₹1000/day for males, ₹800/day for females)
  + Total amount paid
  + Pending or overpaid amount
  + **Who paid how much** and **on what dates**
  + Show year in the report for clarity