**Users:** employee, guard, supervisor, director, admin

Employee:

* View attendance details
* Apply for a leave
* Check how much different kinds of leaves left that can be availed
* View leave application status

Guard:

* Mark employee attendance

Supervisor:

* View employee leave applications
* Approve employee leave application

Director:

* View employee leave applications
* Approve employee leave application

Admin:

* Generate report to show employees whose attendance for a month is less than a given percentage
* Generate report to show employees with any outstanding leaves
* Generate report to show attendance details for a given employee
* Generate report to show leave details for a given employee
* Add employee to the system
* Remove employee from the system

Functionality needed:

* Calculate working hours for a day
* Guard enters a day which initializes all employees attendance
* Guard enter entry time
* Guard enters exit time
* Employee can view attendance
* Employee can apply for leave
* Admin can enter add people
* Admin can remove people

**Statement Breakdown**

Consider an attendance and leave management system for a commercial organisation.

This statement introduces the system. Two main things, attendance and leave.

The system keeps record of employees’ attendance and leaves, and generates several reports.

Two main things are stored, attendance and leaves. Reports revolve around attendance and leaves. Attendance class is made and Leave class is made

The length of the working week is 40 hours: 8 hours a day and 5 days a week. The employees are

required to remain in the premises for this period.

This is managed in the Attendance class

Attendance is marked by the guards on duty standing at the gates.

Guard subclass is made for this purpose. It will have a function to mark attendance.

The employees can view their attendance details any time.

Employee subclass is made for this purpose. It will have a function that shows employee attendance.

The organisation provides different kinds of leaves to its employees:

Handle different leaves, 4 subclasses made for this

Casual leave: This leave can be availed in case of short-term sickness or emergency. The leave

does not require a prior approval. Each employee gets 15 casual leaves for a year. However she

cannot avail more than 4 leaves at a time

some info in leave class, some in employee class

Earned leave: This leave is used when employee wants to take more than 4 days off. The leave

requires prior approval. An employee can take 21 earned leaves in a year

some info in leave class, some in employee class

Official leave: If an employee goes to some official visit, she can file official leave. Full credit (8

hours) is awarded in this case

info stored in leave class

Unpaid leave: An employee can avail unpaid leave for a quite longer period of time e.g. study

leave for a few years. However prior approval is required, and the employee shall not get any

salary during this period

info stored in leave class

For each leave application, different data items are recorded: employee name and id, type of

leave, leave period (from, to), leave address (e.g. ex-Pakistan leave), reason, date of application

etc. The system forwards leave application to the applicant’s supervisor. When the supervisor

approves application, the system notifies the employee and updates records. The system records date of approval as well. In case of long leave such as Earned leave, the system also requires approval of the company director.

Leave application class is made. Supervisor class is made. Director class is made

Show employees whose attendance for a month is less than a given percentage (e.g. 80%)

Show employees with any outstanding leaves (e.g. earned leaves without approval, or casual

Show attendance details for a given employee

Show leave details for a given employee (including leave balance)