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## Introduction

The objective of the project is design and implementation of an interactive “Leave Management System” for the Human Resources (HR) manager at Pretoria, Belgium Campus. The Leave Management System automates the process of managing and tracking multiple types of employee leaves. Employees can submit the leave form, cancel previously submitted leave requests, check the status of leave requests and view completed leave transactions. The Leave Management System maintains a database to keep a running balance of each employees account, accumulates employee vacation and sick credits and provides individual reports on employees leave accumulations.

You must develop this system in three different phases. The first phase will form project 1.

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## Outline

“Leave Management” should be a Graphic User Interface (GUI) system. There are registered employees in the system. Some are approvers. An approver can also be a requestor. The hierarchy could be Lecturer/Dean/ HR etc. Lecturers must send leave requests to the Dean. The dean has the rights to approve/decline leave requests. If the dean approved the leave, the leave request must be sent to the HR department. Once the HR department receives the confirmed leave request, the HR official will calculate the leave pending based on the type of the leave and will send notification to dean and the employee. The Dean can also send his/her leave request to HR as well.

Your system must have four main functional areas such as: **Administration, Employee, Dean and HR.**

You can implement ‘Employee’ and ‘Dean’ functional areas in phase two, HR in phase three.

In project 1 **Administration** should be functional.

### Project 1 Functional Requirements:

Create a main menu with four functional areas. When click on “Administration” your system should navigate to another form with two tabs/forms such as “Employee\_Registration” and “Leave\_Policy”. User can select any tabs/ forms to perform CRUD operations.

#### ➤ Employee\_Registration:

- Admin has a right to register an employee into the system with all the possible information and save it into the database. E.g. Id, name, surname, date of birth, salary scale, date of join, designation, email, contact details, marital status, spouse, gender etc.
- Admin must be able to see all the registered employee details in a tabular format as well as in a sorted order based on surname.
- Your application is not allowed to delete any registered employee.
- Admin can search for an employee either using name or surname or employee\_id. When clicks on the “Search” button the corresponding information should populate in the fields/table.
- Admin can update the details of an employee.

- Create default user name and password for each employee. Employees can change their username and password later.

➤ **Leave\_Policy:**

- Admin must add leave policy in to the system. E.g. all possible type of leaves, number of days, descriptions etc.

Leave Type	Days/ Month
Annual Leave	21 days
Maternity Leave	3 months
Sick Leave	30 days
Family Responsibility Leave	4 days
Study Leave	3 days

- Admin can delete or update the details.
- The number of days of leave (as per the assumed leave policy) should be automatically credited to everybody and a notification regarding the same be sent to them automatically.

## Technical requirements

- Database design must be in 3rd Normal Form
- Use Object Oriented Principles to model your classes and class libraries to reuse your code.

## Mark Allocation

Criteria	Weight
Project Analysis	3
Database/table design	4
Add/Update/Delete details	6
Module Creation	4
Form Design/Styling	3
Classes/ packages	3
Interface implementation	3
Abstract class implementation	3
Fields and methods	2
Custom Exception Handling	2
Collections	2
Search	3
Populating information into fields	2
Populating information into tables	3
Navigation	2
<b>Administration functional</b>	<b>5</b>

Total	50
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### Additional Information

- All work must be done on your own.
- Belgium Campus have software that can **scan for plagiarism** and a student caught doing this will get 0 for this assignment.
- Late assignments will not be accepted; missing the deadline is an automatic 0.