Instructions:

- Go through the problem statement clearly.
- Time limit is 120 minutes.
- Make sure that project is created in eclipse only by the name as **<name>_<emp_id>_IM**.
- Create all your java files in package "**com**" within src folder of eclipse project.
- Make sure that exact class outline is followed as you did in previous assignments.
- You need to zip the eclipse project folder and upload the same in LMS once completed. The project folder will be available in your workspace folder.
- It is mandatory to upload eclipse project and not only java files for your code to be assessed.
- Make sure that there is no compilation error in your code before submission. Even if there is minor error, entire solution could be rejected.
- You may refer previous assignments, course content and internet for any reference.
- **Please do not use sequence generator of database ,insert primary keys manually**
- **You can create a separate test class to contain the main() method.**

User input is not required in any of the method described. Prefer to have hard coded values for method call.

Problem statement:

We need to provide management system to manage Employees and Leaves taken by them(**Leave Management System**). Leave can be of the following types.

1)Casual Leave (CL)

2)Sick Leave (SL)

3)Earned Leave (EL)

4)Flexi Holiday(FH)

5)Leave Without Pay (LWP)

An associate can apply any of the following leave types.

Request Id is unique for a given leave request. Leaves are created in Pending status. Supervisor can approve or Reject the leave request.

Thus for above mentioned management system please create following artifacts (DB tables and Java classes) of the solution.

Create the Employee_Dtls table in the database with naming convention **TBL_<*Your Employee Id*>_Employee_Dtls.**

Employee_Dtls

Column Name	Data Type	
EMP_ID	INT	Primary key
EMP_NAME	Varchar2(25)	
Designation	Varchar2(25)	
Gender	char	Values should be either M or F
ISU_Name	Varchar2(25)	
Address	Varchar2(150)	
Contact_No	Number	
Email_id	Varchar2(25)	
Supervisor_Id	INT	NOT Nullable

You can add data inside Employee_Dtls table manually.

Leave_Details		
Column Name	Data Type	
Request_Id	INT	Primary key
Leave_Type	Varchar2(5)	
EMP_ID	INT	Foreign key (Employee_Dtls)
START_DATE|	Date	
END_DATE	Date	
Leave_Reason	Varchar2(100)	
Request_Status	Varchar2(10)	
No_Of_Days	Number(5,2)	

Create a class named **LeaveManager** which should have below mentioned methods.

For each of the method you need to connect to Database to perform operation using JDBC.

1. **applyLeave(LeaveDetails leaveObj)**

This method is used to capture the leave details when an employee applies for a leave.You need to validate if the mentioned Employee is valid using a database check for the given employee Id.

If Employee is not available in the database an exception **EmployeeDoesNotExist** should be thrown.

If Employee is valid leave request needs to be captured in **Pending** status.Request_Id is a unique number for each leave request.

2. **approveLeaveRequest(int empId,int supervisorId, int status,int requestId)**

Supervisor uses this method to approve/ reject (input parameter status) a leave request. Following conditions needs to be checked before approval.

1)Only leaves in pending status can be approved or rejected.

2)Both Employee Id and Supervisor Id should match with the details(input) provided for updation.

It throws a **LeaveApprovalFailed** exception if the conditions are not satisfied.

3. **findISUWithHighestLeaveRate(String leaveType)**

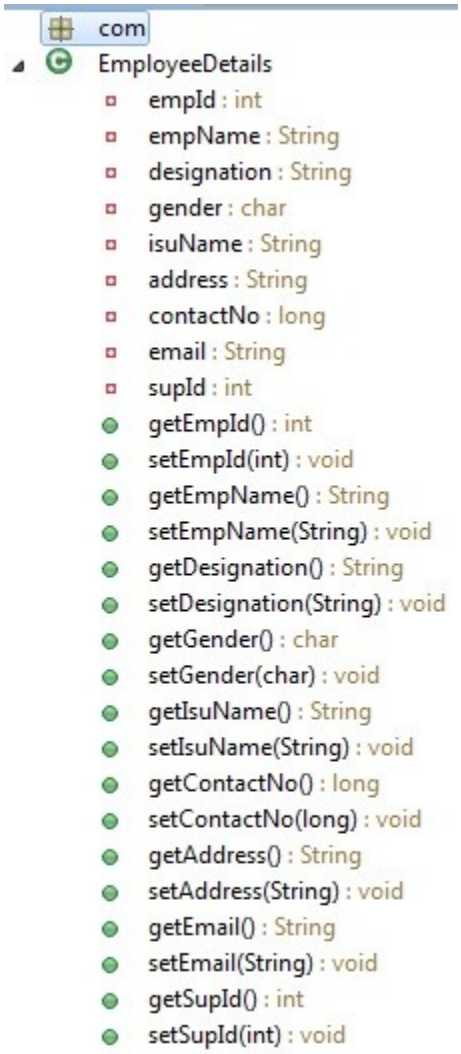
This method receives a leave type as an input and tries to find out the ISU which has the maximum number of **approved** leaves of specified leave type.

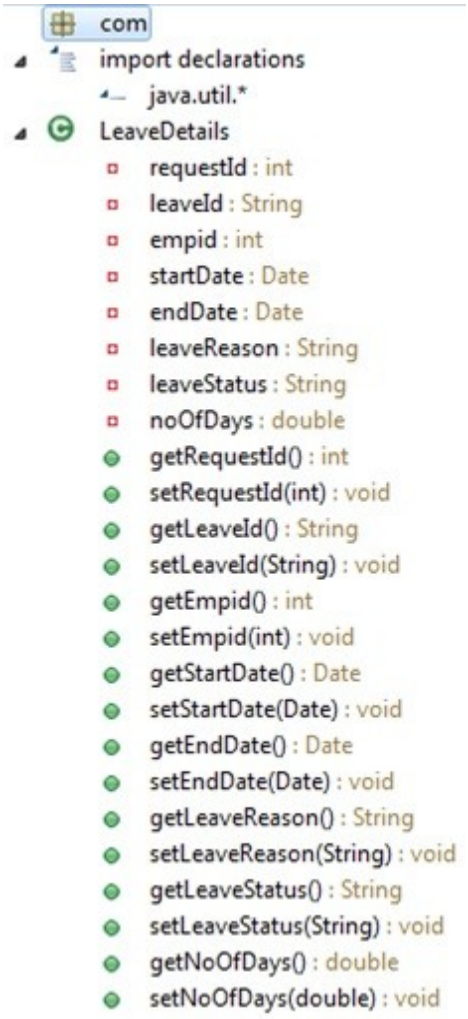
Assumption: Assume that only one ISU will have maximum approved leaves at a time.

When found ISU name needs to be returned by the method.

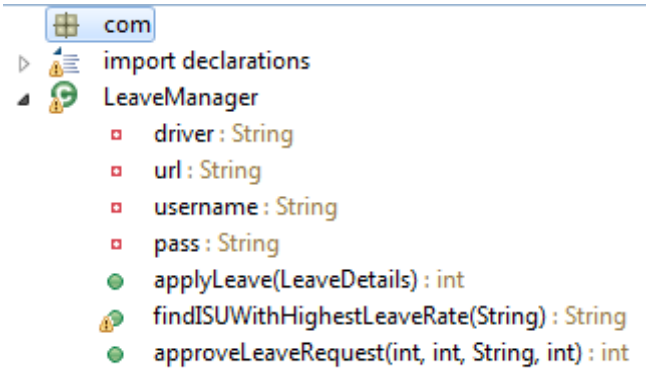
Create a LeaveDemo class with the main method.

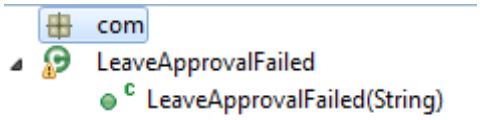
The class outline is as follows.

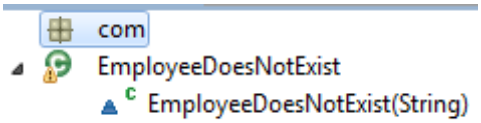




Field leaveId in LeaveDetails class is for leaveType.






com
EmployeeDoesNotExist
EmployeeDoesNotExist(String)