

# Design Document v0.1 FKPayRoll

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# Assumptions:

The following assumptions have been made while developing the Payroll System:

1. Regarding Admin:
  - a. Admin will be an external source of the organisation
  - b. Its sole purpose will be managing the payroll
  - c. There can be more than one admins
  - d. The salary of the Admin is not considered
  - e. Admin has the only authority to add employee, change employee details, remove employee
2. Regarding Employee:
  - a. Employee have to manually enter the time card
  - b. Employee cannot change anything without login
  - c. Employee cannot change his salary
  - d. Employee Cannout change his salary criterion
3. Regarding System;
  - a. Only one user is allowed to enter into the system at a time
  - b. Admin have to manually call calculatePayroll() to calculate or update salary of each employee

## CLASS DIAGRAM:

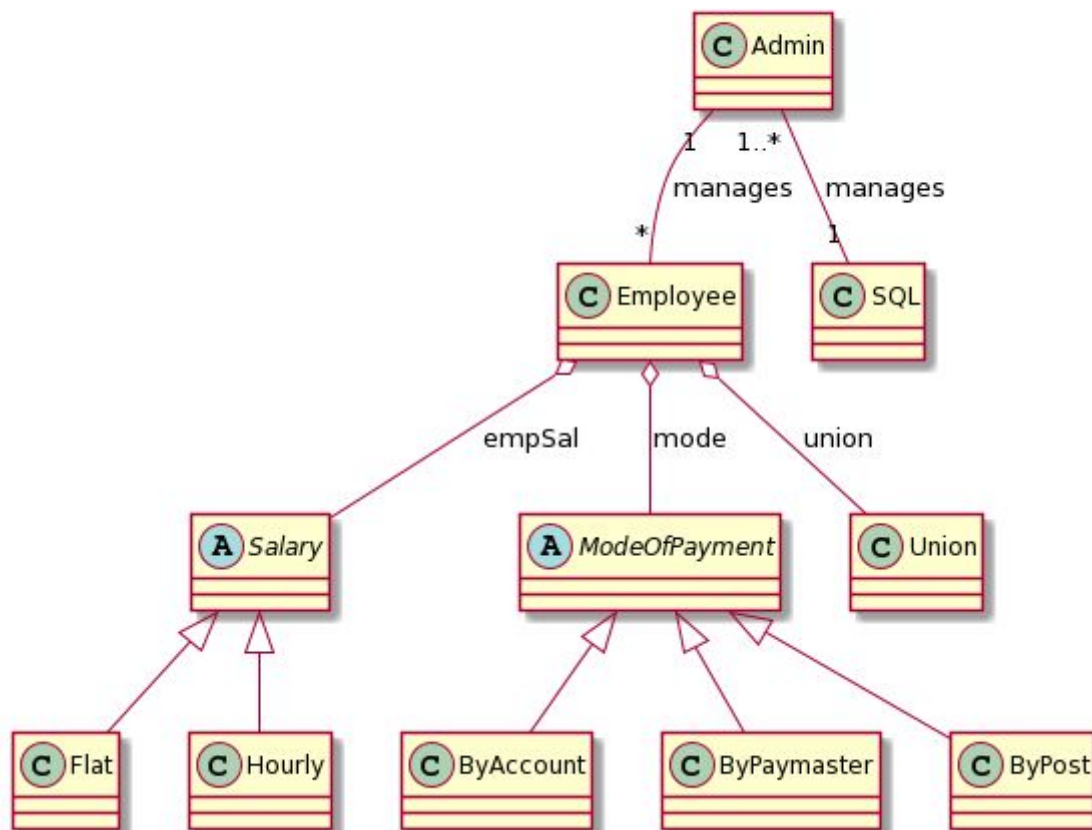
Below represents the class diagram of FKPayrollDesign. There are two diagrams illustrated for simplicity.

1. First one omits the class/abstract member variables and methods for overview of classes.
2. Second contains full illustration of classes and abstract classes with each member variables and functions included.

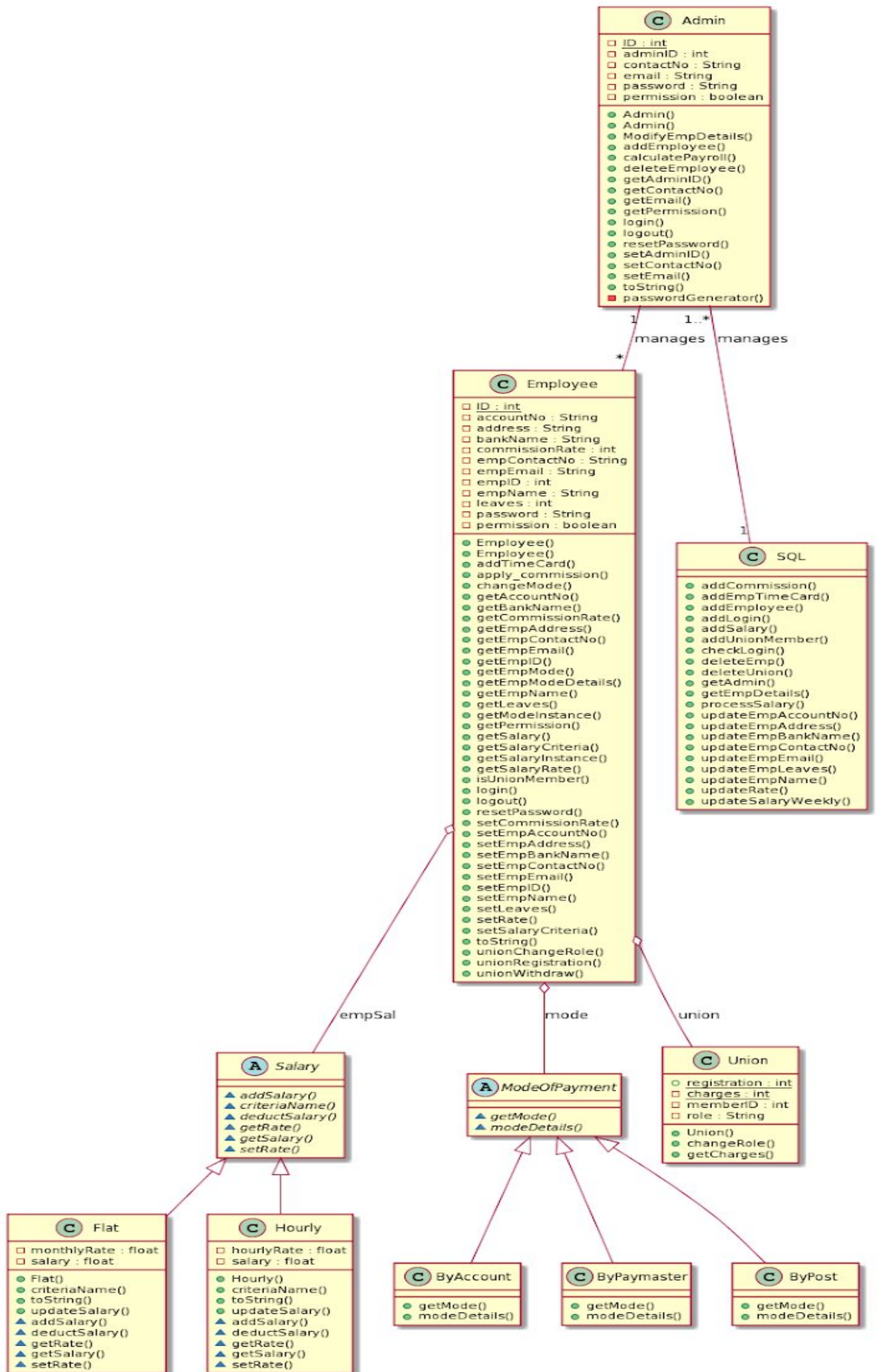
'C' in block represents a class

'A' in block represents an abstract class

FKPayroll's Class Diagram

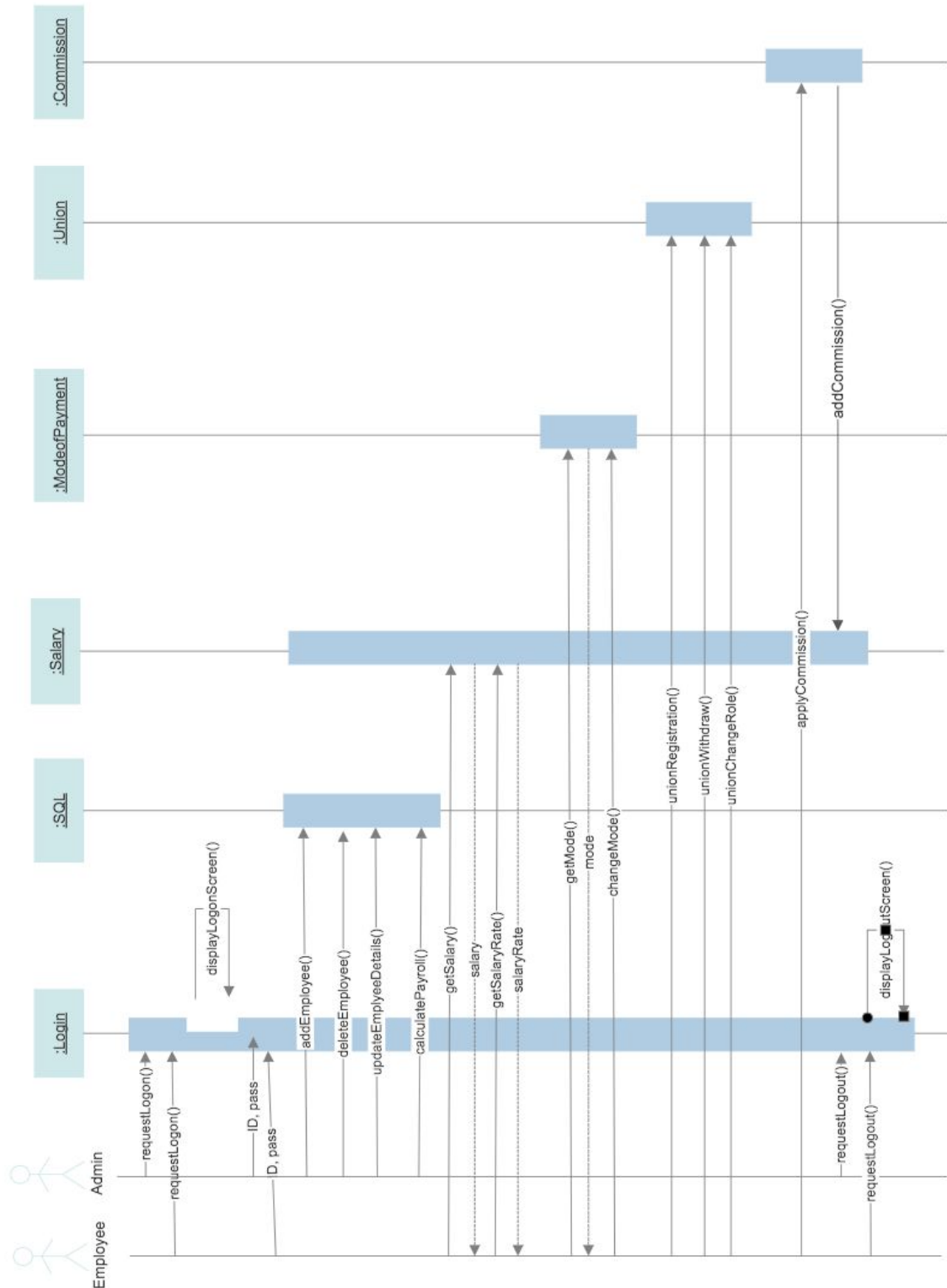


# FLPayRoll's Class Diagram



# SEQUENCE DIAGRAM

Below represents the sequence diagram of the FKPayroll



## Design Choices:

1. For employee:

Employee has been added as a class having single variable permission system. It has been added to only allow edit employee details when it is logged in.

All the data variables are marked private for privacy.

All the member functions are marked public.

2. For admin:

Admin has been added as a class having single variable permission system. It has been added to only allow edit personal or employee details when it is logged in.

All the data variables are marked private for privacy.

All the member functions are marked public.

3. For salary:

It has been implemented as an pure abstract class. Further two classes extends from it namely Flat and Hourly. These both contains the implementation of criterion of salaries.

4. For ModeOfPayment:

It has been implemented as an pure abstract class. Further three classes extends from it namely ByPost, ByPaymaster and ByAccount. These both contains the implementation of different mode of payments.

5. For SQL:

It has been implemented as a seperate class for loose coupling and only this class deals with the database operations i.e. interaction with MySQL within local server.