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Software Engineering
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Payroll System Design

Functional Requirements

- ***Master Module***
    - Helps add to the department. In addition it helps the administrator to enter the designation and related description.
- ***Employee Module***
    - Helps to add the details of the employee such as the personal details and the employee detail.
- ***Search Module***
    - Helps to search the employee details within the department and by designation as well.
- ***Attendance Module***
    - Helps to organize and track different types of leave for different years. In addition it helps the employee to enter their entry and exit time. Using this module the employee acn check their remaining leaves and also apply for the leave.
- ***Salary Module***
    - Helps to calculate the salary by adding the allowances and the basic salary and by deducting the deductions based on the leaves and in addition to the proficient fund and employee state insurance. It also helps generate the employee pay slip.
- ***Report Module***
    - Helps to generate the administrative reports like the Salary Report, Attendance Report, and Employee Report which can all be exported to word or pdf
- ***Performance Requirements***
    - The backend of the application should be developed on VB.Net platform and SQL server 2008. The system should run under Windows XP/7/8/8.1 or any version of Linux.
    - Backups taken at regular intervals for recover of data after system crash

Nonfunctional Requirements

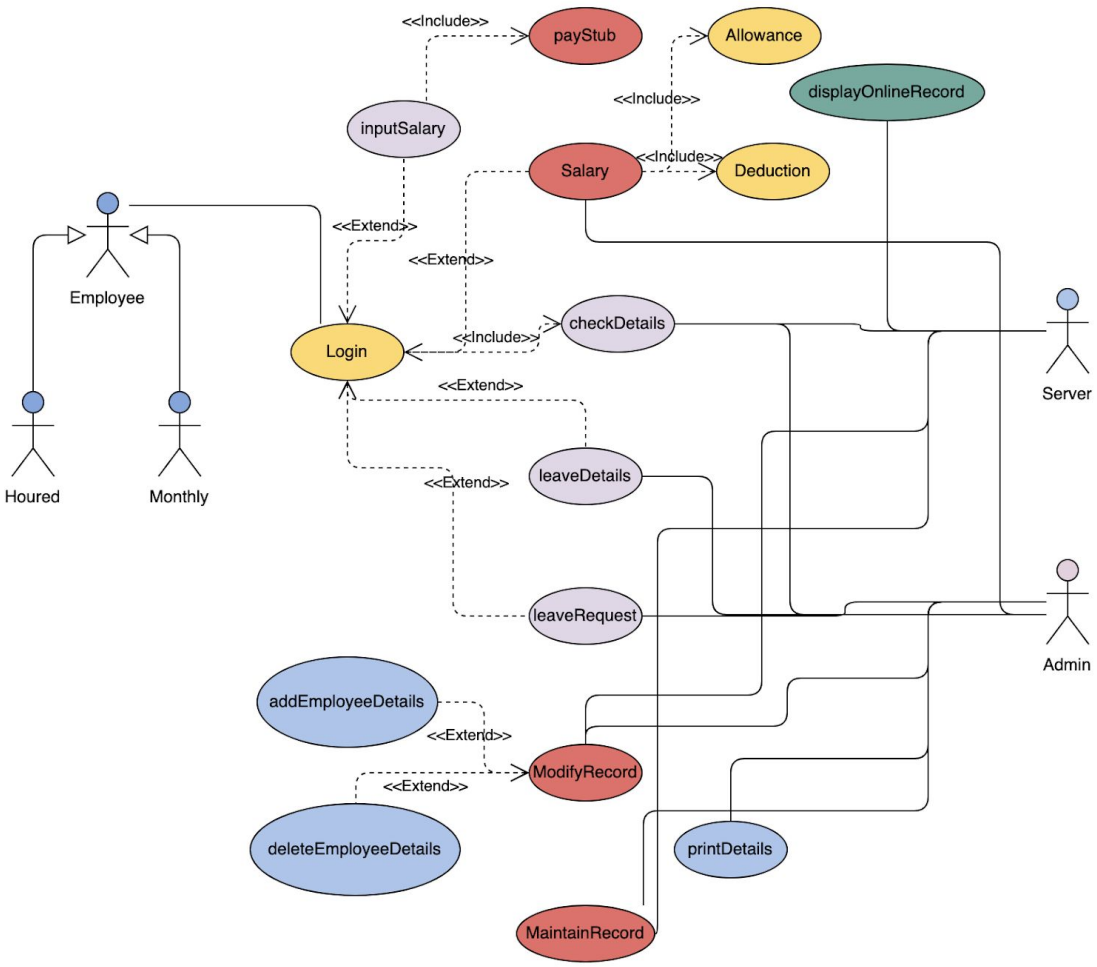
- ***Performance Requirements***
    - The software should be able to run on multiple machines, and be compatible with different versions of operating systems
- ***System Requirements***
    - The system should be fast and error free
    - The system should have built in error checking and correction functionalities

- The system should be able to handle large amounts of data without crashing
- The product should have a user interface that is simple enough to understand
- The software is self contained
- Simple database rather than complex one

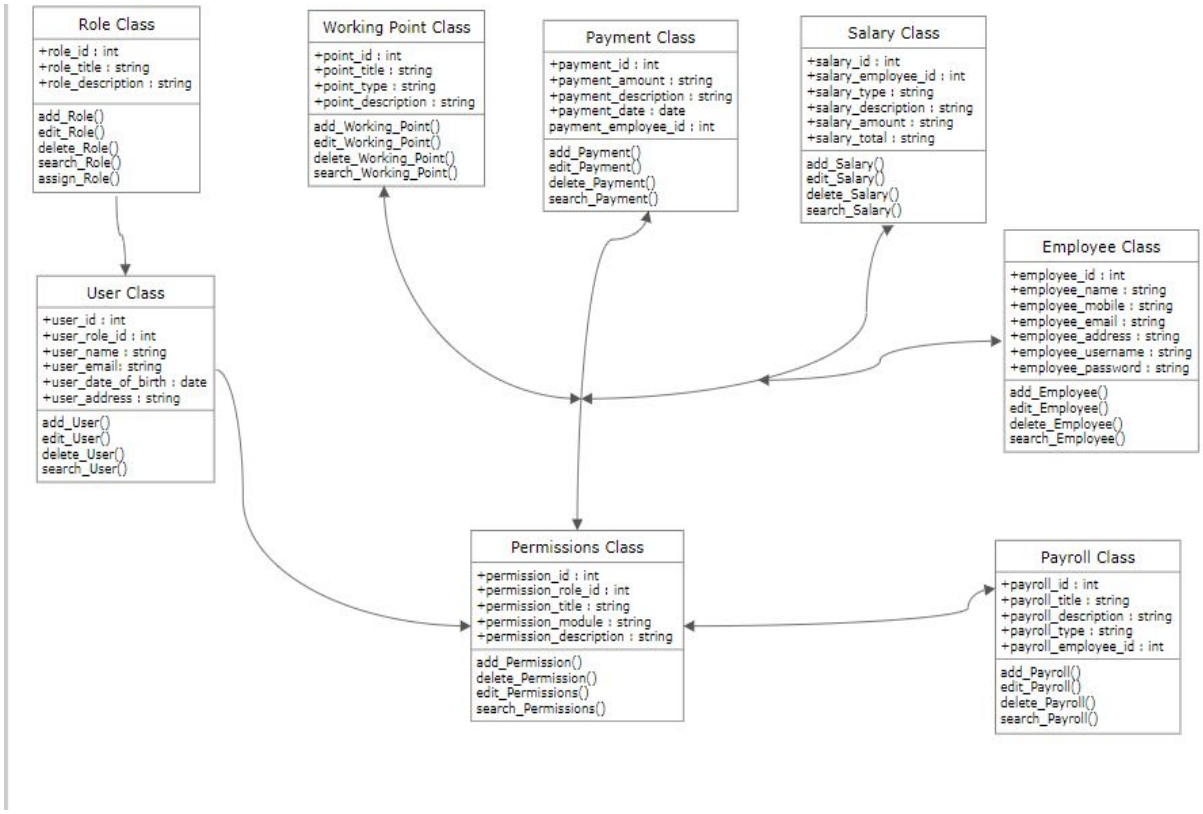
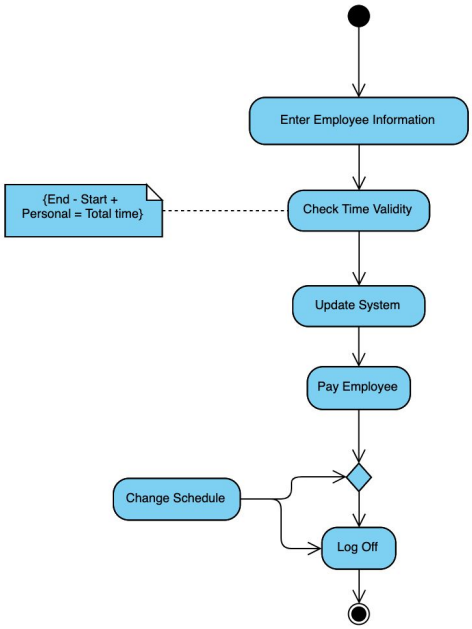
- ***Reliability Requirements***
  - The systems should be designed using software that is established to be stable and easy to use
- ***Availability Requirements***
  - The system should be designed to run 24/7 and to be readily available to the user
- ***Security Requirements***
  - The access to the software should be given only to valid operators/administrators. They would need a specific ID and password to get access to the software

Parts of reliability, availability and security sourced from: (https://smallbusiness.chron.com/nonfunctional-requirements-payroll-systems-12553.html)

Use Case Diagram



Class Diagram



Activity Diagram