



## **System Concept**

Develop two modules for an employee management system that are capable of connecting to the database. The database that these modules are to connect to is an employee database, the administrators will be able to add, view, update, and delete employee personal details and/or salary records stored in the database.

## **Business Opportunity**

The system is designed for purposes of better managing human resource department information, an evolutionary first step of migrating from paper file system to digitisation. An advent of a system this kind will ensure data is easy correlated, patterns discovered, information retrieval and querying is far easy with data being related as compared to incongruousness of the paper file system. This system is designed to efficiently manipulate and manage information and files.

## **System Actors**

Human Resource Administrators – these actors add, view, update, and delete employee details from the database, including these functions administrators can also calculate, save and view employee salary information.

## **System Practicality**

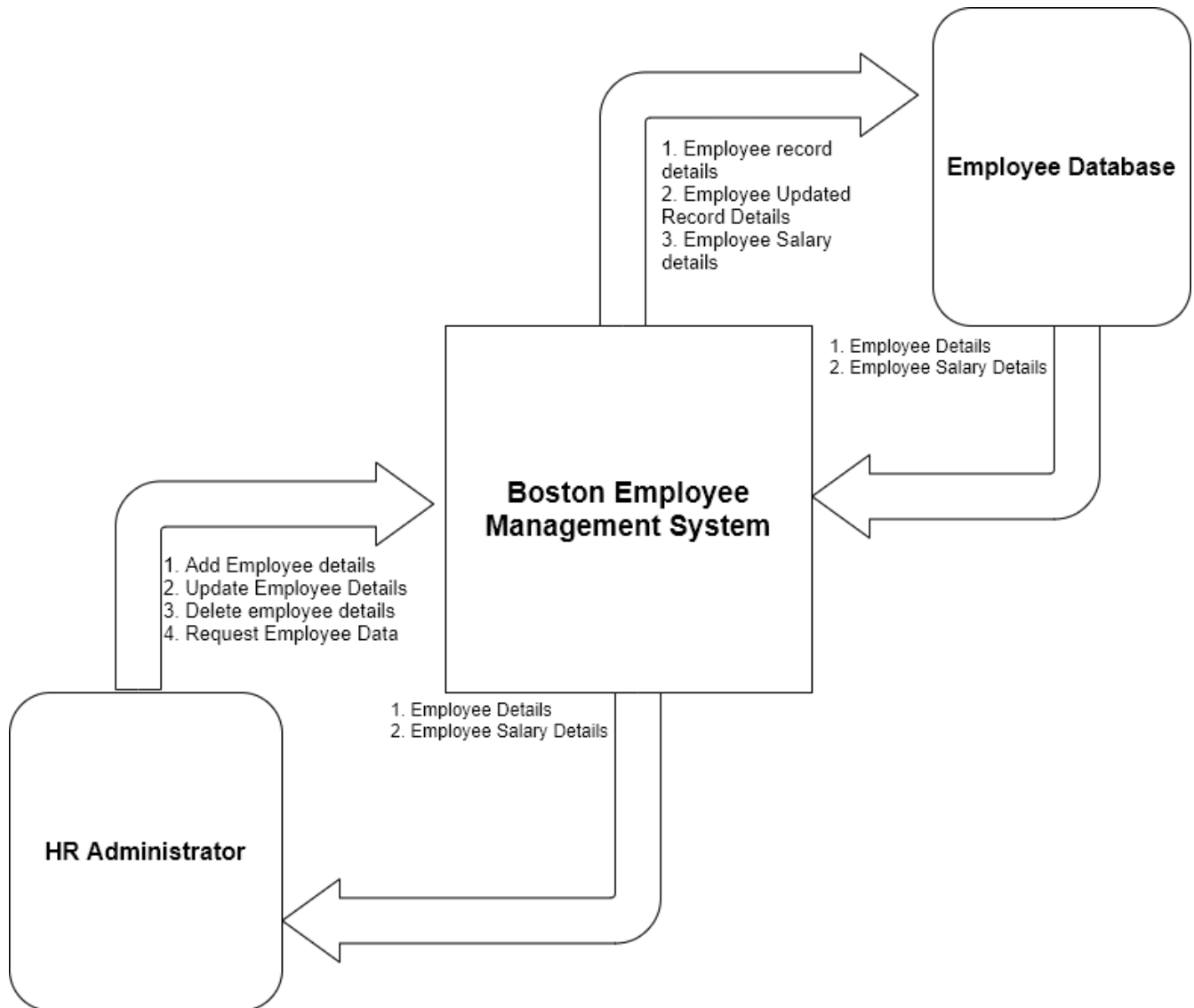
The system will be beneficial to the human resource department in the following ways:

- Better management of employee information files
- Better storage than the paper based system
- It will armour the department against catastrophic data destruction by using database backups and cloud storage.
- All employee information is logically stored and is guarded against duplication.
- Validation rules implemented on the system will ensure correct and accurate recording of information

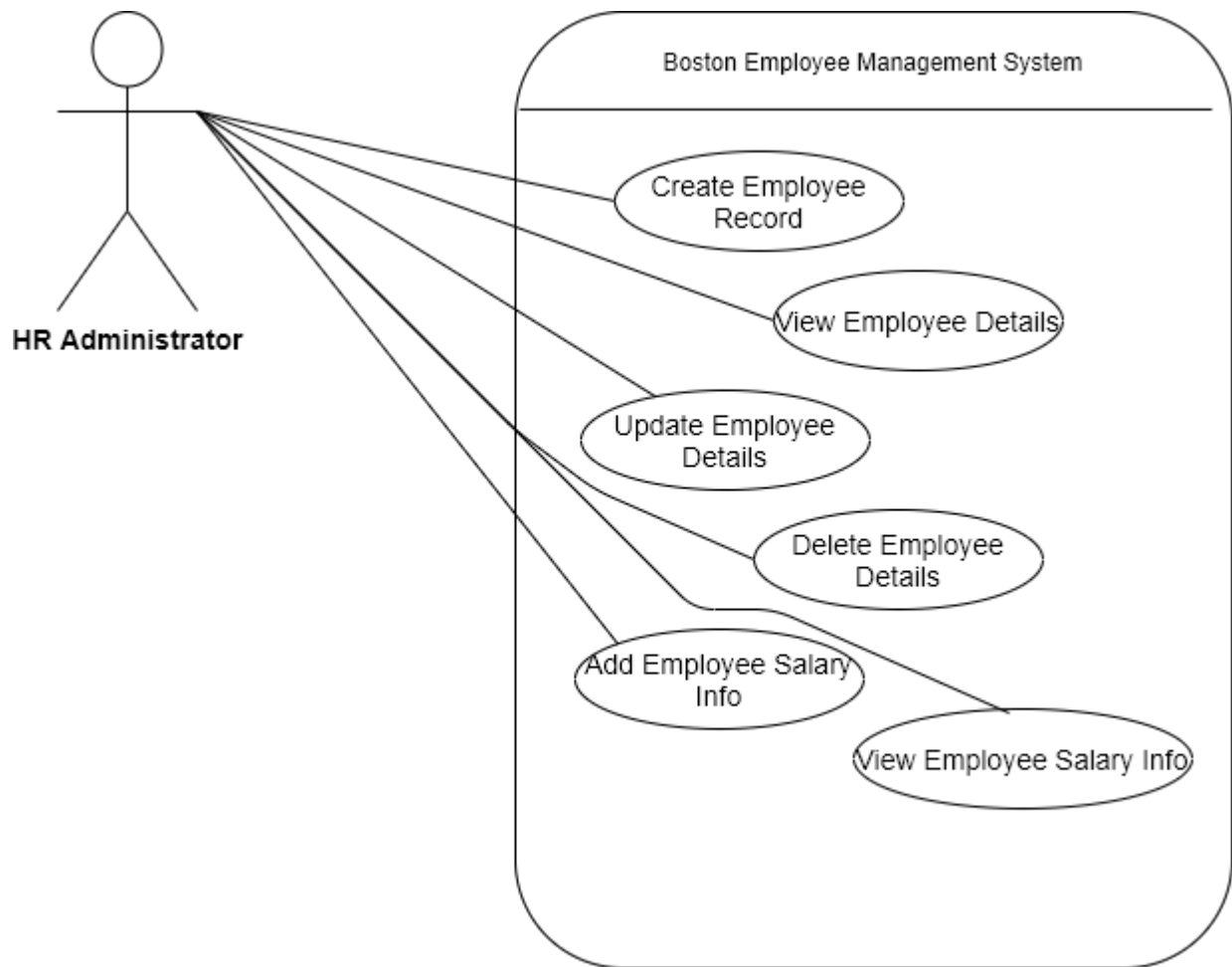
## **System Requirements**

- Create a Java project in Netbeans IDE, the project name must be BostonEmployeeManagementSystem, and the package must be com.boston.employeeManagement.
- Create a MySQL database with two tables, one to store employee information and the other to store salary information.
- Add three classes to the project that will do the following:
  - ◆ One class should have the main method
  - ◆ One GUI design to capture employee information
  - ◆ One GUI design to calculate employee salary
- Validate the phone number if its numeric
- Implement try-catch for event handling on all mySQL statements
- Add prepared statements on all insertion buttons
- Implement transactions on all relevant MySQL statements
- Use batch processing on the delete all button to delete all records
- Add prompts to notify user on successful completion of operation and also to notify users if an error occurs
- Use comments to document your code and correct Java variable and method naming convention

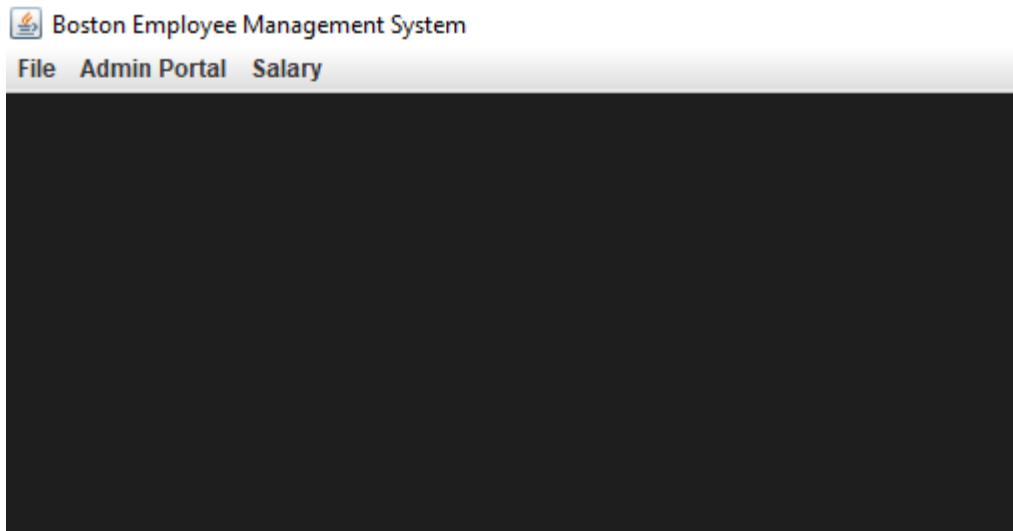
## Context Diagram



## Use Case Diagram

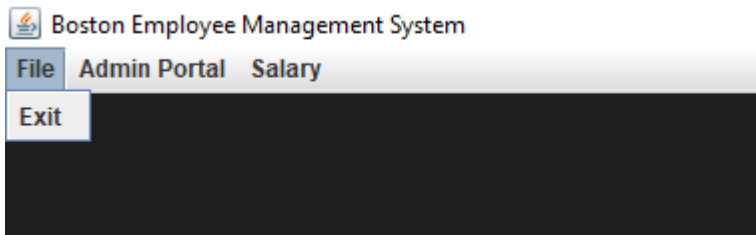


## User Manual



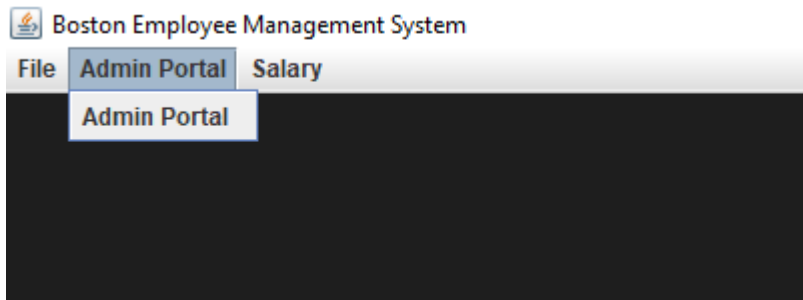
The main window of the Boston Employee Management System with its navigational menus.

- The File Menu – this menu contains an option to terminate the application



- Exit menu item – this terminates the application run.

- The Admin Portal Menu – this menu directly the user to a form to add, view, update, and delete employee information.



- Admin Portal menu item – this menu item brings up an admin portal form

Admin Portal

Employee Information

First name

Last name

Job Title

Department

Date Of Birth

Phone Number

Username

Password

Employee Management System: Admin Portal

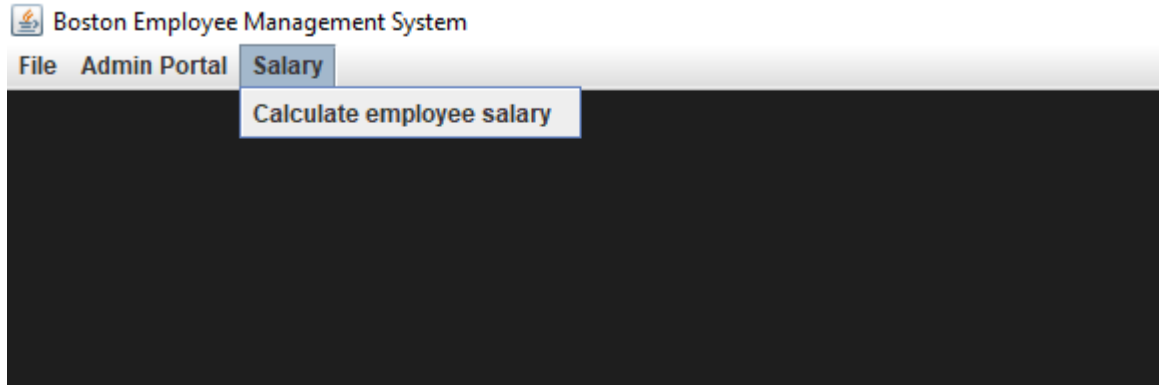
Firstname	Lastname	Department	Date Of Birth	PhoneNumber
Gilliard	Benchwood	H.R	2000-08-22	0797864312

Commands

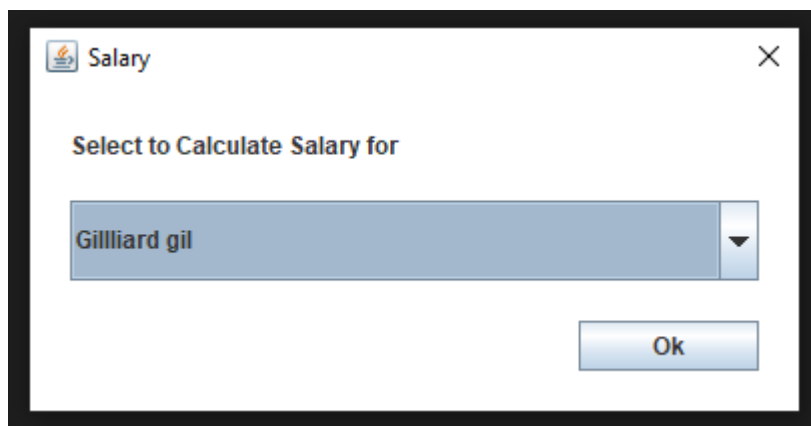
Add Update Delete Delete All Refresh Close

- ◆ Add Button – this button adds employee captured information to the database.
- ◆ Update Button – this button fetches employee details from the database, set them on the GUI, update and save them.
- ◆ Delete Button – deletes details of a particular user.
- ◆ Delete All Button – Deletes all the records found in tblEmployee table.
- ◆ Refresh Button – Refreshes the window by clearing fields and show a clean form.
- ◆ Close Button– this button hides and destroy this form.

- Salary Menu – this menu contains a menu item to a form where employee salary can be calculated.



- Calculate Employee Salary Menu Item – this menu item displays a form where salary of an employee is calculated and saved.



Before the form is displayed, a dialog box is displayed. Select the name of the employee you want to calculate the salary for and the Salary form will be displayed with the details of the selected employee.



