

7. IntelliSoft Kenya Limited urgently needs a system to manage their employees. The system should collect names, date of birth, unique identifier, address, contract information(when signed, expiry date and type). You are required to model this system using UML, OOP principles, flow diagrams. Provide a practical solution through java code, demonstrate industrial coding accepted styles (25 marks).

### **Important details**

Names,  
Date of birth  
Unique number  
Address,  
Contract information(when signed, expiry date and type)

### **Database Visualization**

Employees Basic Details	Contract Information
Employee_ID_Number Employee_Unique_Number Employee_Date_Of_Birth Employee_Address	Employee_ID_Number Contract_Signed_Date Contract_Expiry_Date Contract_Type

We need the two tables as shown.

One contains the personal basic details and the other contract information.

In relation, its contract information belongs to a specific employee. One employee can only have one contract information.

### **Analysis**

#### **We need to know what the system will be doing**

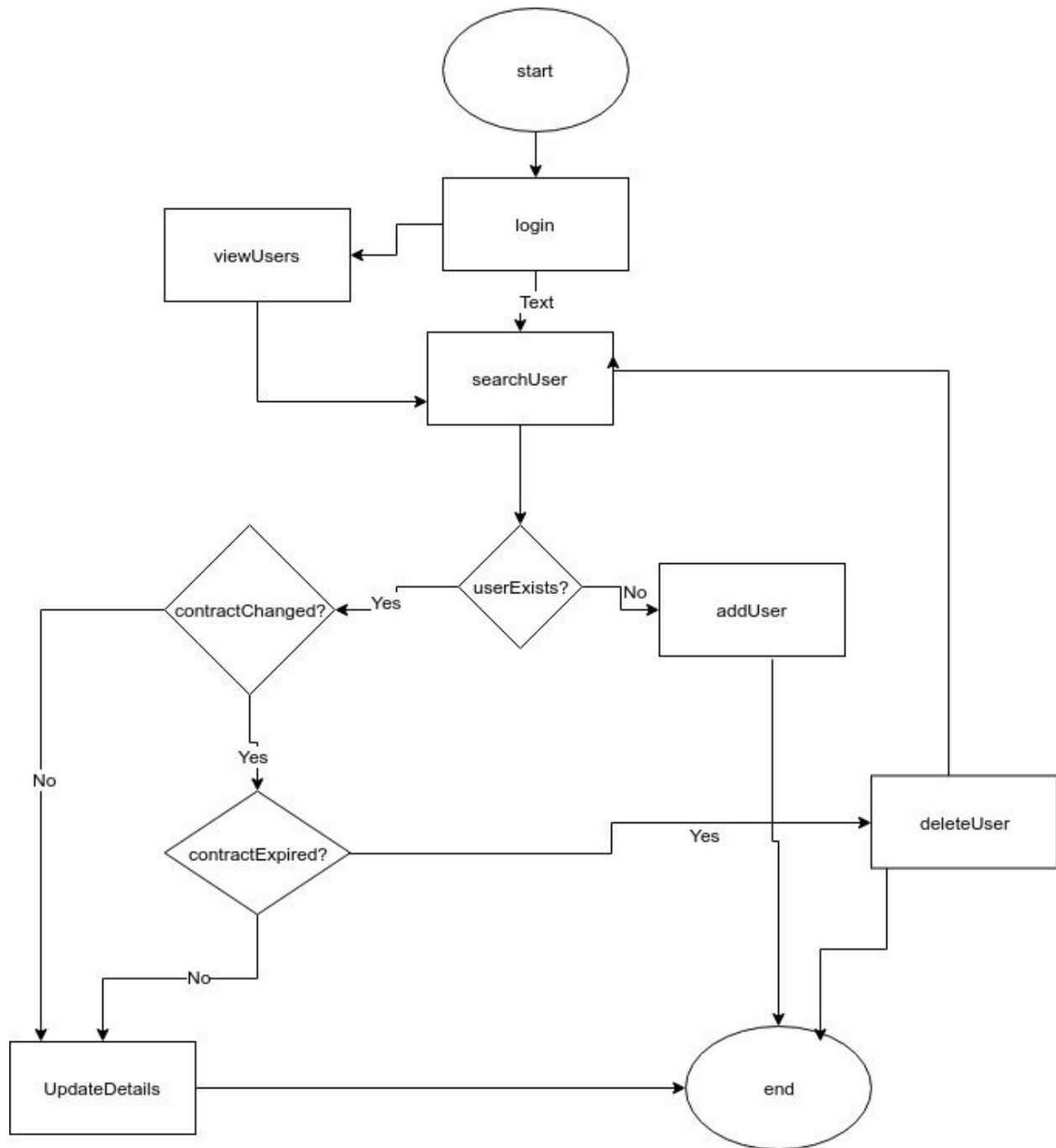
We need to have an admin user whose work is to manage the records of various employees

Roles of the admin:

1. Login via an Admin Manager
2. Search Employees
3. Add new employees
4. Delete exiting employees
5. Update records, eg the contract records,of the existing employees
6. View all the employees in the database
7. View a single employee details.

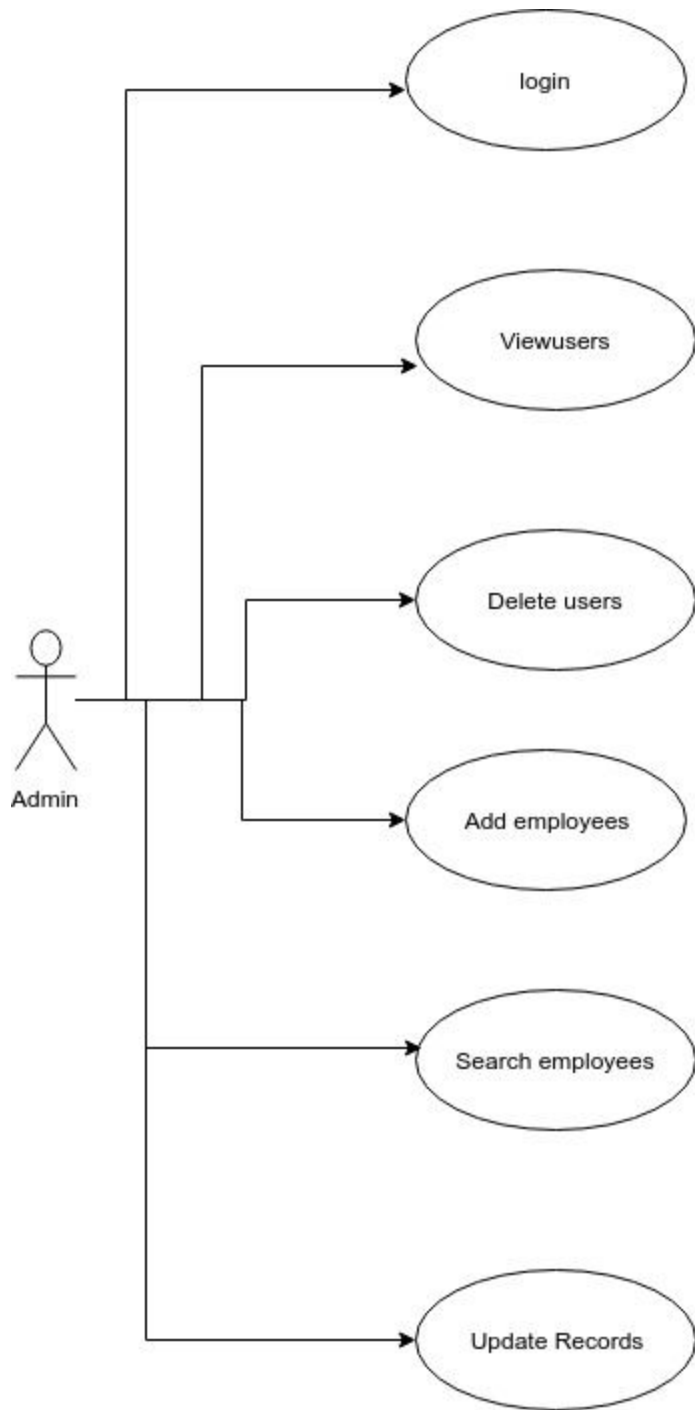
Therefore. The system should have each of the above actions interface implemented.

## Flow chart diagrams



Flow chart diagrams found here:

## UML UseCase Diagram



## OOP PRINCIPLES

- Abstraction.
- Encapsulation.
- Inheritance.
- Polymorphism.