

**ALIGARH MUSLIM UNIVERSITY**

**DEPT. COMPUTER SCIENCE**

**FINAL PROJECT TOPIC:-**

**E-LEGAL AID AND WELFARE PORTAL**

**DIAGRAMS DOCUMENT**

**SUBMITTED TO-**

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## UML Diagrams

A UML diagram based on UML(Unified Modelling Language) with the purpose of visually representing a system along with its main actors, roles, actions, artifacts, or classes in order to better understand, alter, maintain, or document information about the system.

### **1) Use Case Diagram:-**

It model functionality of a system using actors and use cases. 'Use cases ' are a set of actions, services and functions that the system need to perform. 'Actors' are the people or entities operating under defined roles within the system.

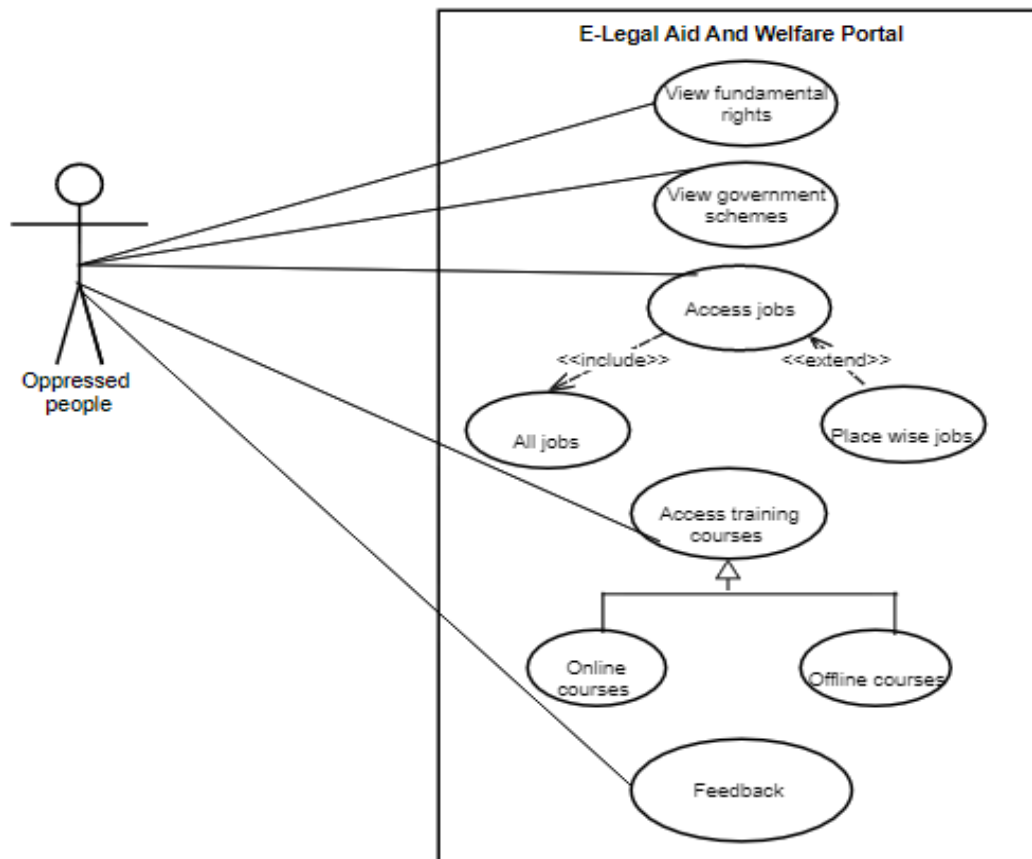
### **Usecase Diagram of oppressed people**

**Actor:-** oppressed people

**System:-** E-Legal Aid And Welfare Portal

**Relationship:-**

- **Include use case (<<include>>)**-A directed relationship between two use cases which is used to show that behaviour of the included use case inserted into the behavior of the including use case.
- **Extend use case(<<extend>>)**- A directed relationship that specifies how and when the behavior defined in usually supplementary(optional) extending use case can be inserted into the behavior defined in the extended use case.
- **Generalization(⬆— )**- It is simply the inheritance relationship between two cases.



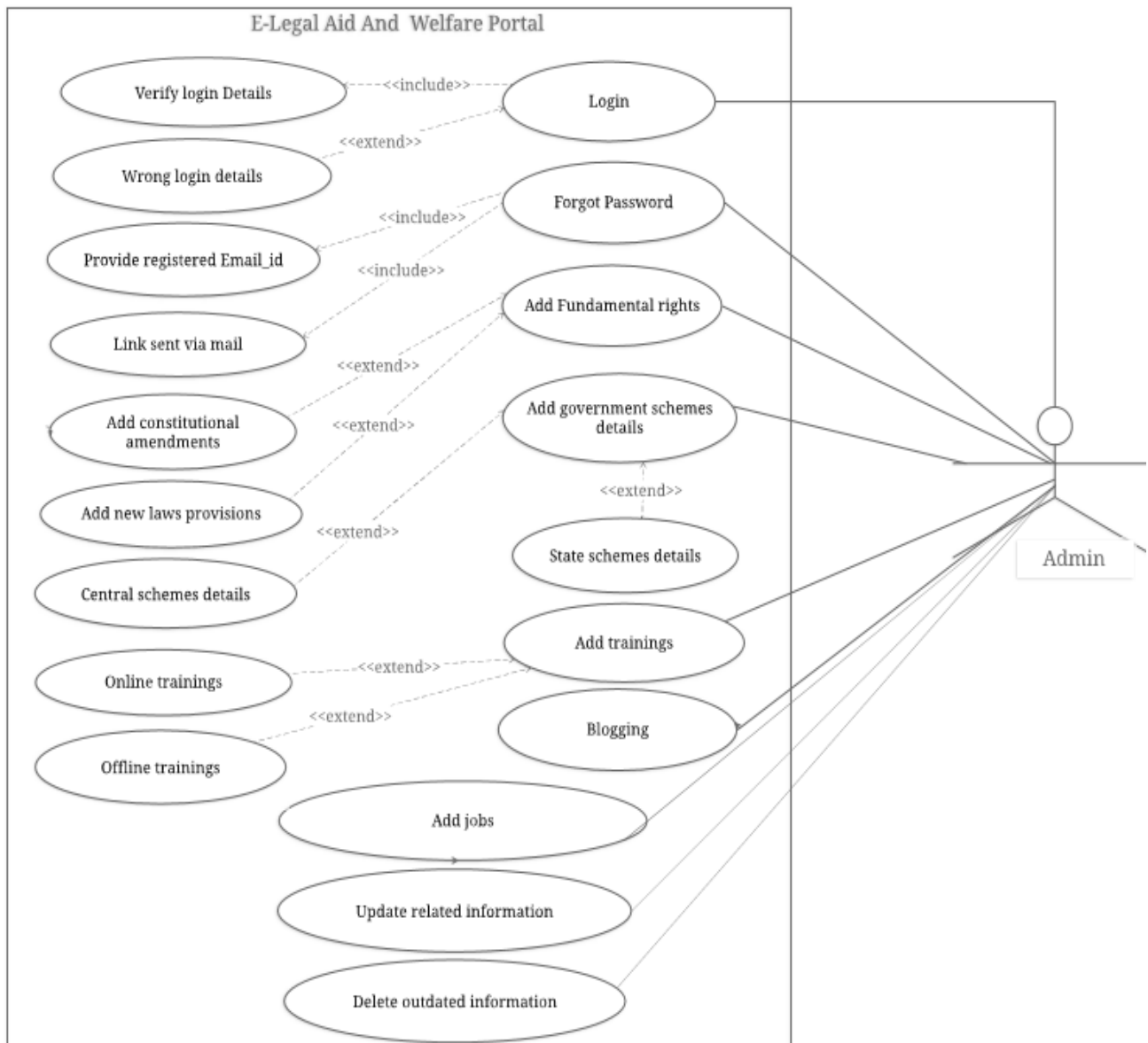
## Usecase Diagram of Admin

**Actor:-** Admin

**System:-** E-Legal Aid And Welfare Portal

**Relationship:-**

- **Include use case (<<include>>)**-A directed relationship between two use cases which is used to show that behaviour of the included use case inserted into the behavior of the including use case.
- **Extend use case(<<extend>>)**- A directed relationship that specifies how and when the behavior defined in usually supplementary(optional) extending use case can be inserted into the behavior defined in the extended use case.



## 2) Class Diagram:-

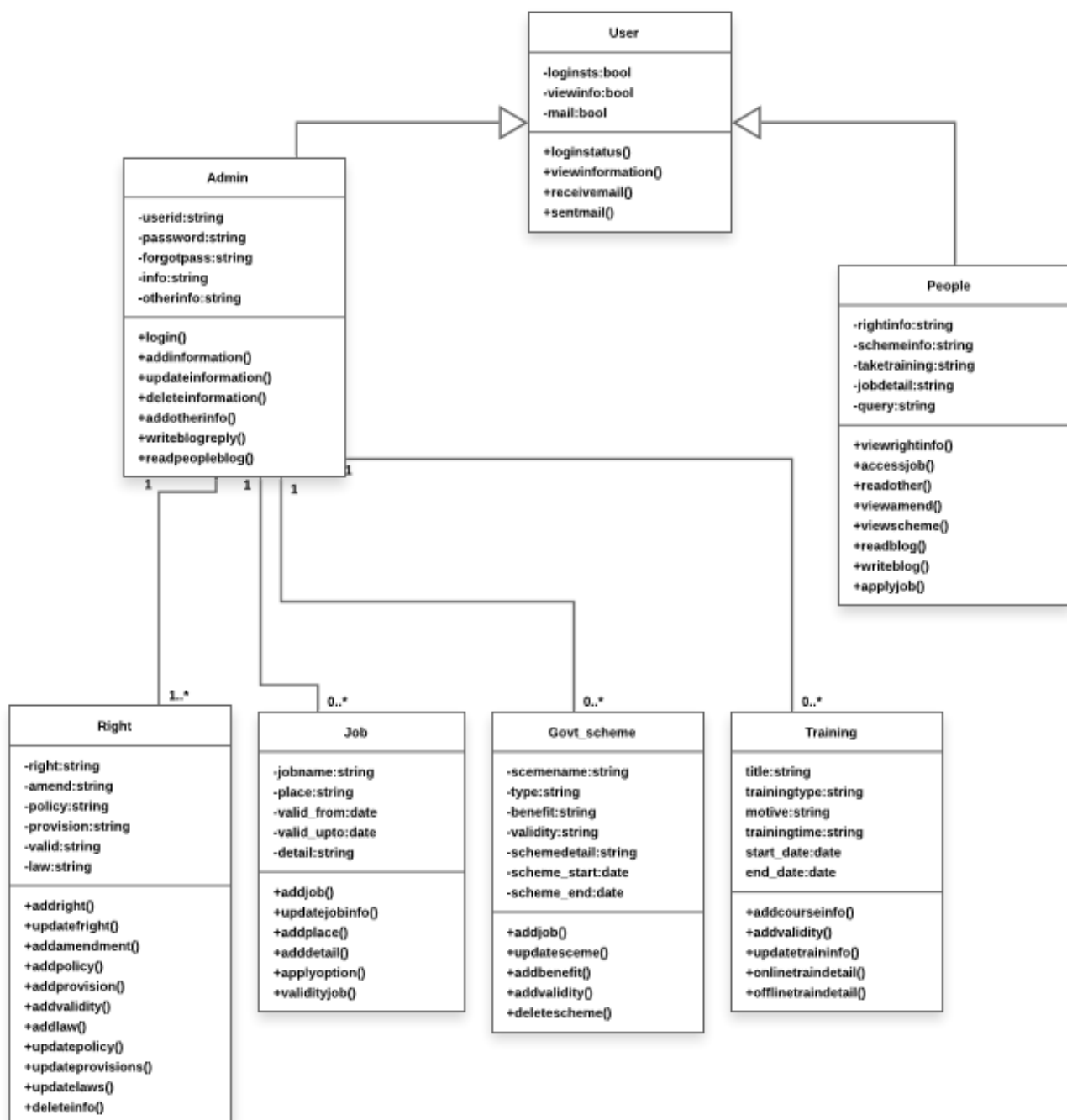
It is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations(or methods),and the relationships among objects.

Classes in diagram-

- **Super class-** User
- **Sub classes-** Admin, People
- **Other classes-** Right, Job, Govt\_Scheme, Training.

Relationship-

- **Association( — )-** It is a structural relationship between objects representing an activity.It exhibits a binary relationship between the objects representing an activity.
- **Inheritance( <| — )-** It refers a type of relationship wherein a class inherits properties of other class.

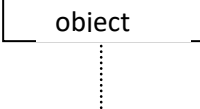

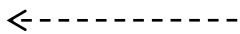



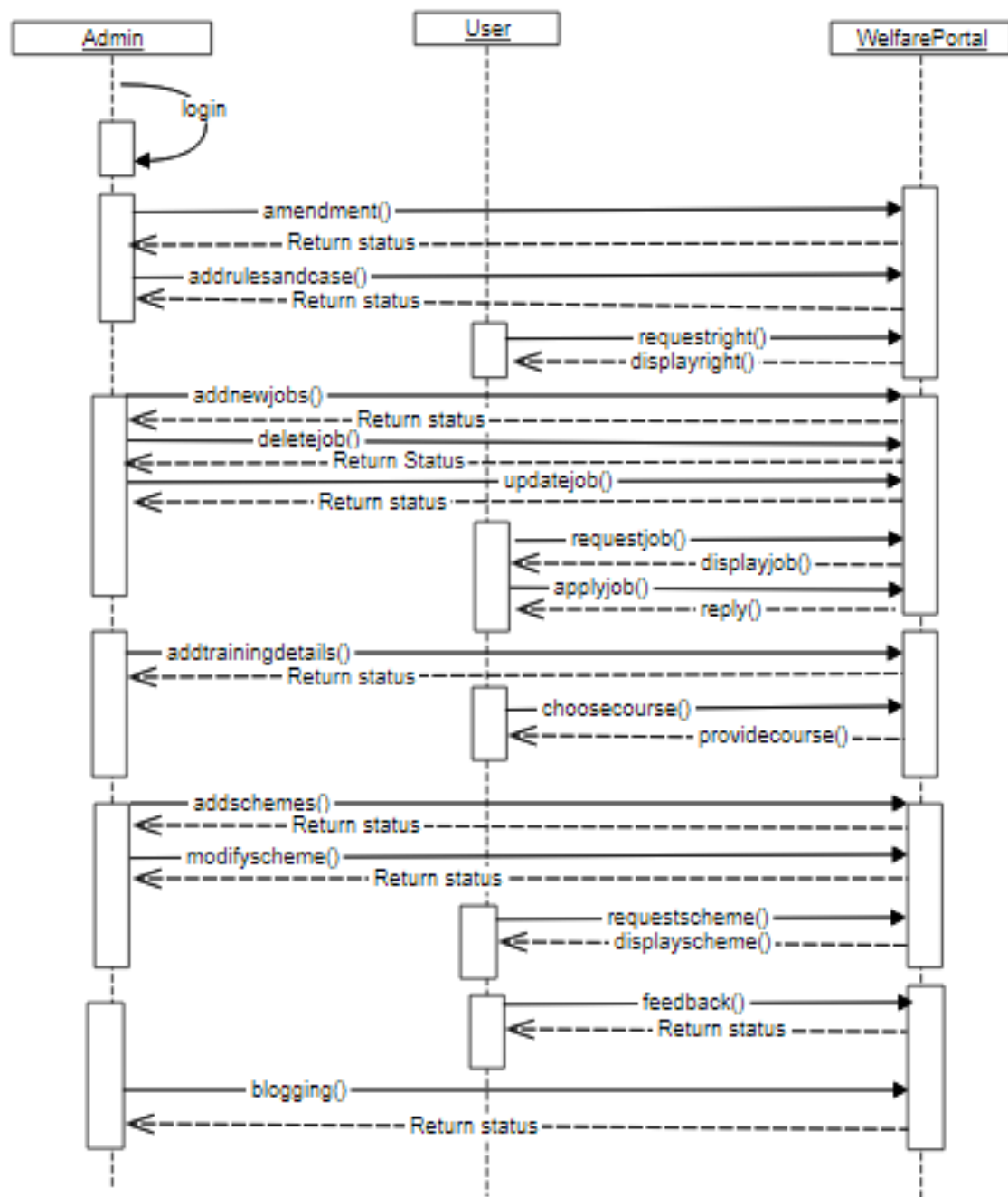
### 3) Sequence Diagram:-

It shows object interactions arranged in time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between objects needed to carry out the functionality of scenario.

**Objects-** Admin, User, WelfarePortal

**Notation:-**

- **Lifeline notation-** 
- **Asynchronous Message-** 
- **Return Message-** 
- **Activation Bar-** 



## Database Design

Database design is the organization of data according to a database model. It defines what data must be stored and how the data elements interrelate.

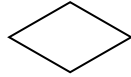
### 4) ER Diagram:-

It included in database designs, it helps to design databases in an efficient way.

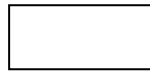
ER diagram shows the relationship between different entities. It has power of expressing database entities in a conceptual hierarchical manner.

#### Notations-

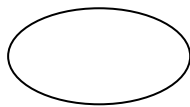
- **Relation-**



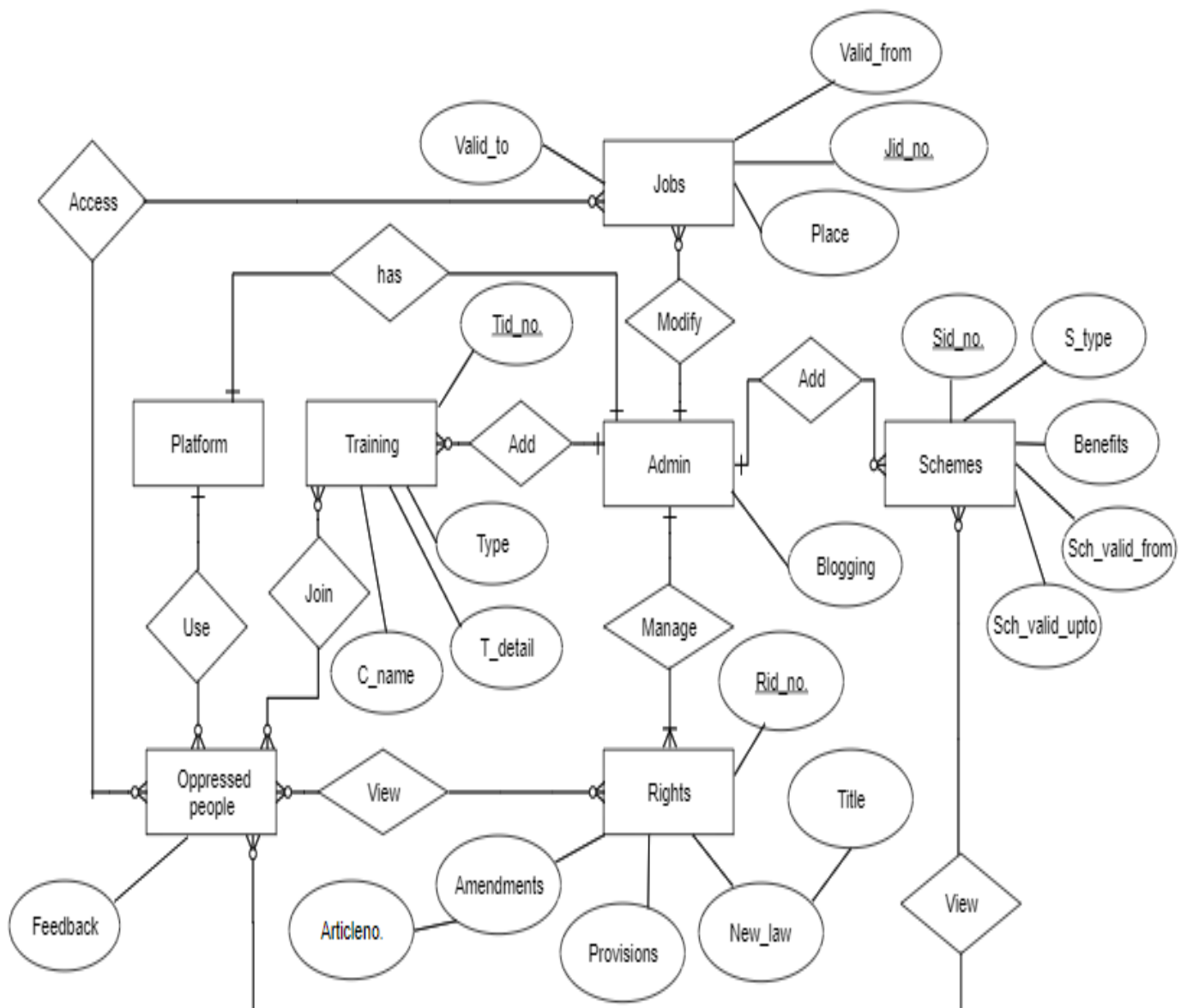
- **Entity-**



- **Attribute-**



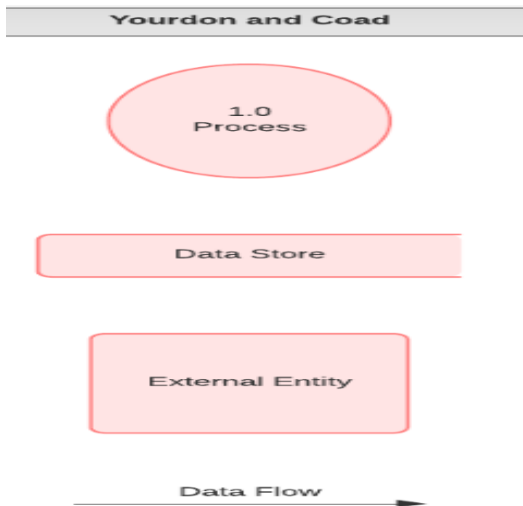
**Entities in diagram-** Admin, OppressedPeople, Jobs, Rights, Schemes, Training



## Data Flow Diagram

A data flow diagram is a way of representing a flow of a data of a process or a system. The DFD also provide information about the outputs and inputs of each entity and the process itself.

### Notations-

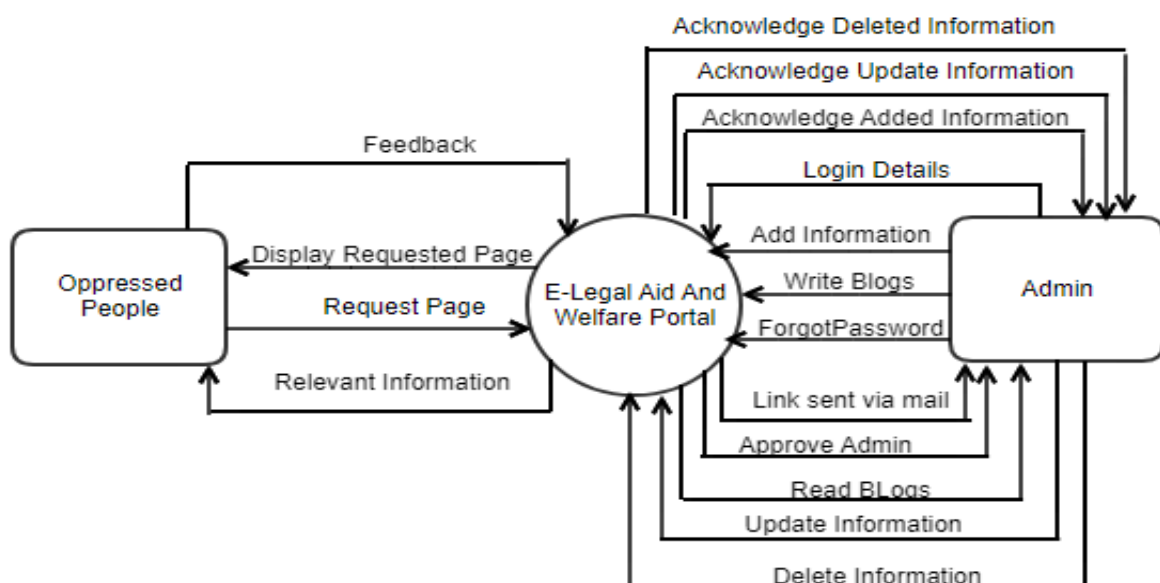


### DFD Level 0

It is also known as 'context diagram'. It shows a data system as a whole and emphasizes the way it interacts with external entities.

**External entities-** Oppressed people, Admin

**Process-** E-Legal Aid And Welfare Portal



## DFD Level 1

It is more detailed diagram of level 0 DFD in this diagram a single process of context diagram is break down into number of processes and database is also included to describe the flow of data from it or into it.

External entities- OppressedPeople, Admin

