**Aim: Development of structural diagrams for projects .**

**Class Diagram :**

Class Diagrams describe the static structure of a system, or how it is structured rather than how it behaves.

It shows the existence of classes and their relationships in the logical view of a system

These diagrams contain the following elements.

– Classes and their structure

– Association, aggregation, dependency, relationships

– Multiplicity and navigation indicators

– Role names and inheritance

**Tools USED: starUML**

**Procedure**: 1) The structural view diagram: Class diagram.

* 1. Identify various elements such as classes, member variables, member functions etc. of the class diagram.

1. Draw the class diagram as per the norms.

**Ex:-2 Draw the Class diagram for simplified Banking System**

**Description :**

A bank has many branches.

In each zone, one branch is designated as the zonal head office that supervises the other branches in that zone.

Each branch can have multiple accounts and loans.

An account may be either a savings account or a current account.

A customer may open both a savings account and a current account.

However, a customer must not have more than one savings account or current account.

A customer may also procure loans from the bank.

**Relationships :**

1. A Bank “has–a” number of Branches : **composition, one–to–many**
2. A Branch with role Zonal Head Office supervises other Branches **: unary association**, **one–to-many**
3. A Branch “has–a” number of accounts **: aggregation, one–to–many**
4. **With Account** class**,** two classes have inherited, namely**, Savings Account and Current Account.**
5. A Customer can have one Current Account **: association, one–to–one**
6. A Customer can have one Savings Account **: association, one–to–one**
7. A Branch “has–a” number of Loans : **aggregation, one–to–many**
8. A Customer can take many loans : **association, one–to–many**

**Class diagram for simplified Banking System**

