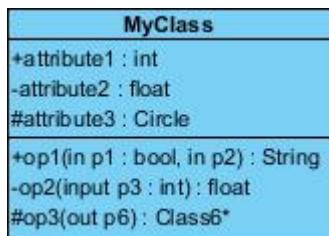


Class Diagram:

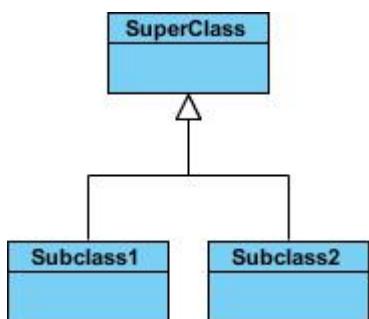
class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods), and the relationships among objects.

- + denotes public attributes or operations
- - denotes private attributes or operations
- # denotes protected attributes or operations



Inheritance (or Generalization):

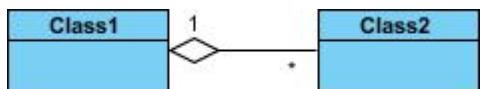
- Represents an "is-a" relationship.
- SubClass1 and SubClass2 are specializations of Super Class.



Simple Association:

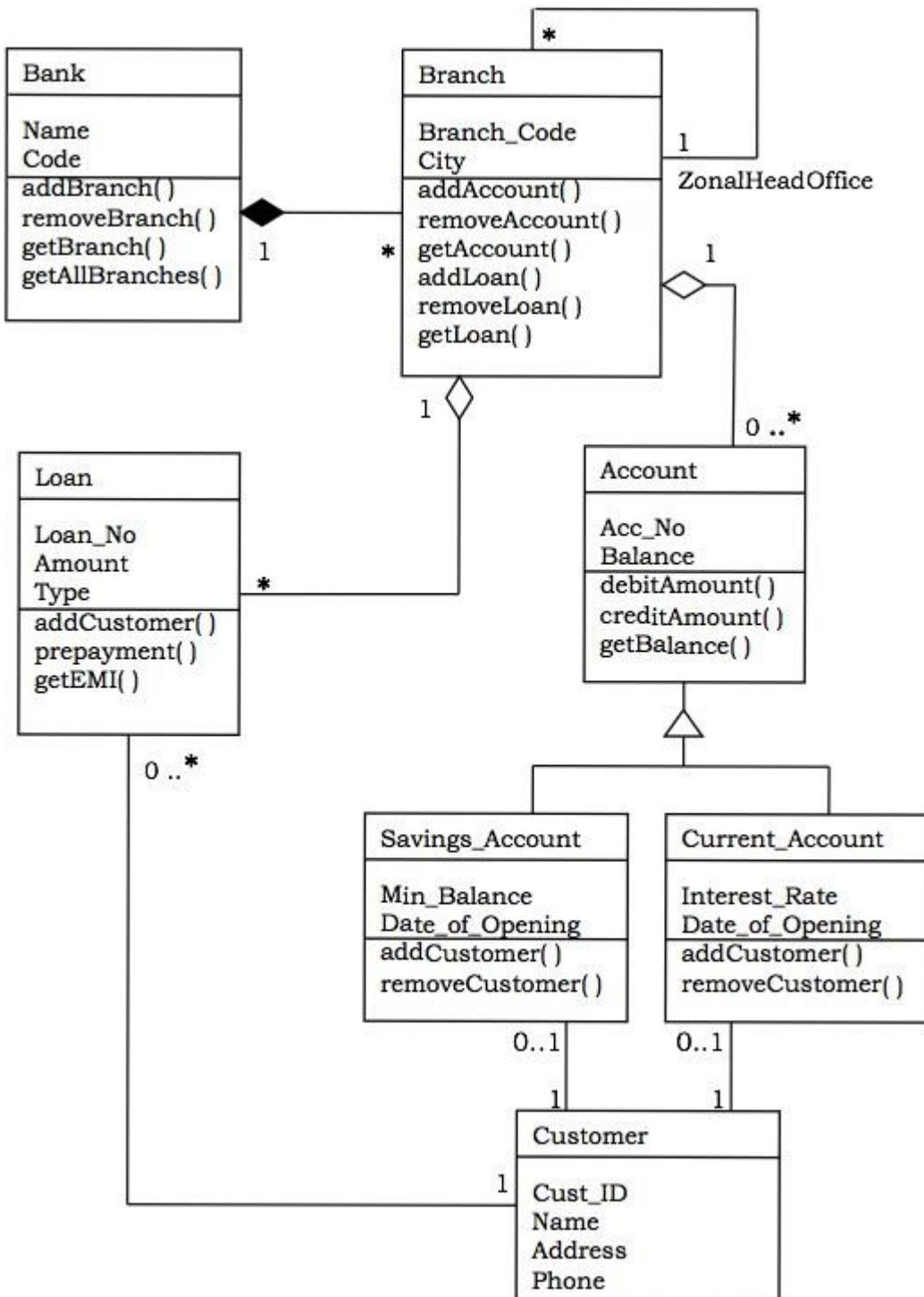


Aggregation



Composition





1Marks

1. State the definition of Software Engineering.
2. State any two advantages of Agile model.
3. Define Requirements Elicitation.
4. State the purpose of a software design pattern.
5. Define validation in software requirements.
6. List any two disadvantages of the Waterfall Model.
7. State the phases of software development life cycle (SDLC) model.
8. State the purpose of an activity diagram.
9. Define the purpose of spiral model.
10. State any two disadvantages of Agile model.

2Marks

1. State any two importance of Software Design Process.
2. Outline two benefits of using the Incremental Process Model.
3. Compare activity diagrams with sequence diagrams in terms of purpose and use.
4. State any two uses of software requirement specification document (SRS).
5. Explain any one technique used for Requirements Elicitation (e.g., Interview, Brainstorming).
6. State any two differences between an architectural style and an architectural pattern.

3 Marks

1. Explain the Iterative Model and give any two advantages of it.
2. Describe the purpose of activity diagram.
3. Explain requirement gathering phase in requirement engineering process.
4. State the purpose of sequence diagram.
5. Differentiate between design process and design model.
6. Explain incremental model in software engineering.

4 Marks

1. Explain waterfall model in software engineering.
2. Explain the relationship between User Requirements, System Requirements, and Functional Requirements.
3. **Explain the feasibility study in the requirement engineering process.**
4. Draw a class diagram for a *Library Management System*.
5. Describe the difference between functional and non functional requirements.
6. Draw an activity diagram for *Student Registration System*.
7. Explain in detail the complete Requirement Engineering Process with all its stages.
8. Draw a simple activity diagram for the *Online Order Process*.

9. Explain the waterfall model with the help of diagram.

Explain the different notations used in class dig?