

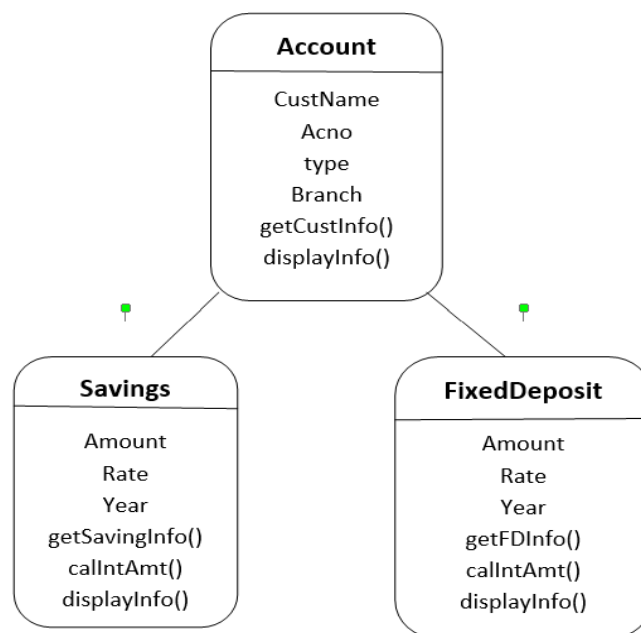
## Object Oriented Programming with Java

### Practical-4

#### Introduction to Inheritance

#### EXERCISE

- 1) Demonstrate single inheritance, multilevel inheritance in Java. Also demonstrate the use of the super keyword in constructor and methods.
- 2) W.A.P for the inheritance and override displayInfo() method and use super keyword to inherit parent class features.



For savings account,

Rate = 3.5 (fix)

Calculate interest = (amount\* rate \* year)/100

For Fixed Deposit,

Years	Rate
<=2	6.5
>2 and <=5	7.5
>5 and <=10	8.5
>10	9

Calculate interest = (amount\* rate \* year)/100

- 3) Create class geometry and define an abstract method perimeter(). Create two subclasses named as square and circle to calculate and display perimeter respectively.

Perimeter of square :  $4 * \text{len}$

Perimeter of circle :  $\text{PI} * d$  or  $2 * \text{PI} * r$

- 4) Create a class named 'Person'. It has a method named 'printSalary' which prints the salary of the person. Two classes 'Employee' and 'Manager' inherits the 'Person' class. The 'Employee' and 'Manager' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address and salary to an employee and a manager by making an object of both of these classes and print the same. Your implementation should demonstrate the use of super keyword, method overriding and inheritance concepts.

Person class data members: Name, Age, Phone number, Address, Salary

Employee and Manager class data members: specialization, department

- 5) Demonstrate method overloading concept using your class ArithmeticIntOp, RelationalOp, BitwiseOp which has one member

Create a main method class named OperatorExt which provides the user a menu through which the user can perform all Arithmetic, Relational and Bitwise operations with help of two operands of different types.