1. **<u>Bank Account Management System:</u>**

   - Funds Bank needs an application to feed new Account Holder information. Account Holder will be a person. There are two types of accounts such as Savings Account, Current Account.

2. **<u>Employee Medical Insurance Scheme:</u>**

   - By default, all employees in an organization will be assigned with a medical insurance scheme based on the salary range and designation of the employee. Refer the below given table to find the eligible insurance scheme specific to an employee.

Salary	Designation	Insurance scheme
>5000 and < 20000	System Associate	Scheme C
>=20000 and <40000	Programmer	Scheme B
>=40000	Manager	Scheme A
<5000	Clerk	No Scheme

1. Write a java program to print person details in the format as shown below:

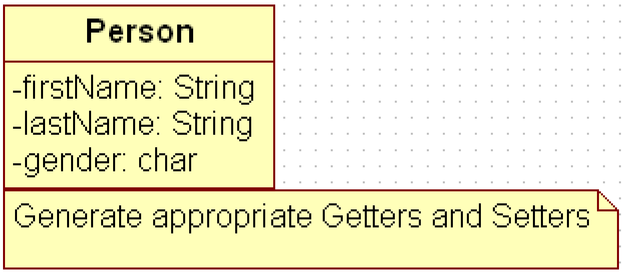
```
Person Details:
_____________

First Name: Divya
Last Name: Bharathi
Gender: F
Age: 20
Weight: 85.55
```

2. Write a program to accept a number from user as a command line argument and check whether the given number is positive or negative number.

3. Accept a string from the keyboard and check whether it is a palindrome. Use only the methods we have learned so far.

4. Accept a string from the keyboard and reverse the string. Print the reversed String.

5. Refer the class diagram given below and create a person class.



Generate appropriate Getters and Setters

6. Create default and parameterized constructor for Person class.

7. Also Create “PersonMain.java” program and write code for following operations:
    a) Create an object of Person class and specify person details through constructor.
    b) Display the details in the format given in Lab assignment 3

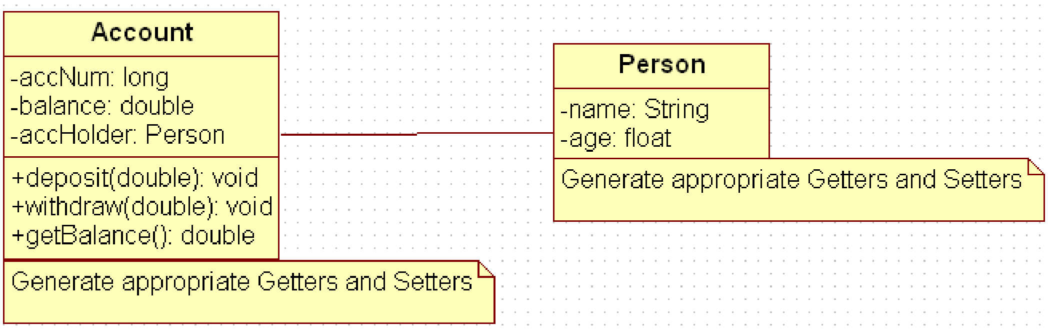
8. Modify Lab assignment 3 to include phone number of a person. Create a new method accept the phone number and also define method for displaying person details.

9. Modify the above program, to accept only ‘M’ or ‘F’ as gender field values. Use Enumeration for implementing the same.

10. Create a method which can perform a particular String operation based on the user’s choice. The method should accept the String object and the user’s choice and return the output of the operation.
    Options are
    - Add the String to itself
    - Replace odd positions with #
    - Remove duplicate characters in the String
    - Change odd characters to upper case

11. Create a method that accepts a String and checks if it is a positive string. A string is considered a positive string, if on moving from left to right each character in the String comes after the previous characters in the Alphabetical order.For Example: ANT is a positive String (Since T comes after N and N comes after A). The method should return true if the entered string is positive.

12. Refer the case study in page 1 and create Account Class as shown below in class diagram. Ensure a minimum balance of INR 500 in a bank account is available.



Create Account for smith with initial balance as INR 2000 and for Kathy with initial balance as 3000.(accNum should be auto generated).

b) Deposit 2000 INR to smith account.

c) Withdraw 2000 INR from Kathy account.

d) Display updated balances in both the account.

e) Generate toString() method.

Extend the functionality through Inheritance and polymorphism (Maintenance)
Inherit two classes Savings Account and Current Account from account class. Implement the following in the respective classes.
a) Savings Account

a. Add a variable called minimum Balance and assign final modifier.

b. Override method called withdraw (This method should check for minimum balance and allow withdraw to happen)

b) Current Account

a. Add a variable called overdraft Limit

b. Override method called withdraw (checks whether overdraft limit is reached and returns a boolean value accordingly)