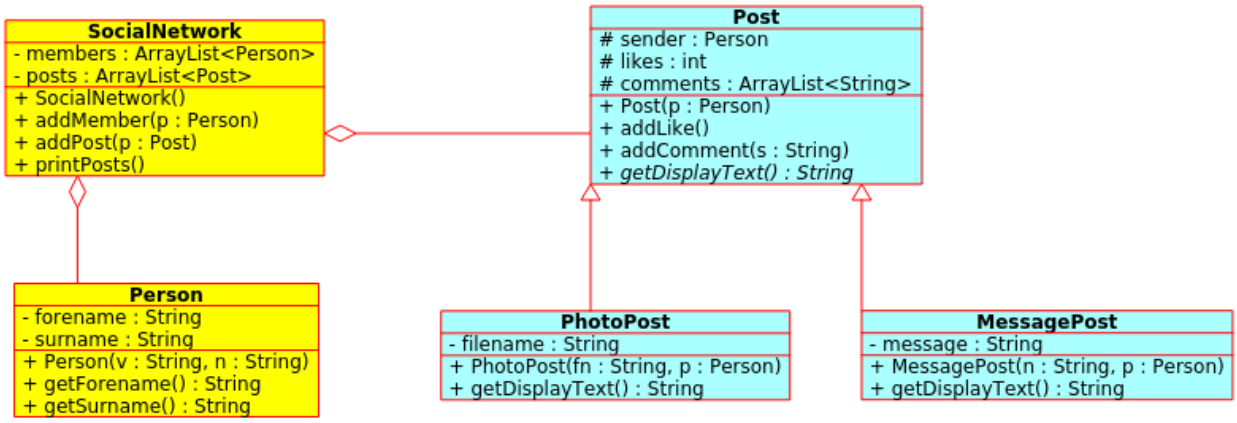
Inhaltsverzeichnis

1. OOP – SocialNetwork1

Part 1: Given is the following uml class diagram:



Part 2: Given is a small test program (here java):

```
public static void main(String[] args) {
    SocialNetwork schoolBook = new SocialNetwork();

    Person teacher1 = new Person("Max", "Teacher");
    Person student1 = new Person("Susi", "Student");

    schoolBook.addMember(teacher1);
    schoolBook.addMember(student1);

    MessagePost postTeacher1 = new MessagePost("What is the best
coding language?", teacher1);
    MessagePost postStudent1 = new MessagePost("I like to design
software!", student1);
    PhotoPost photoPostTeacher1 = new PhotoPost("teacher1.jpg",
teacher1);
    schoolBook.addPost(postTeacher1);
    schoolBook.addPost(postStudent1);
    schoolBook.addPost(photoPostTeacher1);

    postTeacher1.addLike();
    postTeacher1.addLike();
    postTeacher1.addLike();

    postStudent1.addLike();

    postTeacher1.addComment("Java, java, java");
    postTeacher1.addComment("I agree");
    postStudent1.addComment("software testing is coooool?");
```

```
        schoolBook.printPosts();
    }
```

The above code gives this output:

```
MESSAGE-POST:
"What is the best coding language?" by Max Teacher, 3 likes
   comment: Java, java, java
   comment: I agree

MESSAGE-POST:
"I like to design software!" by Susi Student, 1 likes
   comment: software testing is coooool?

PHOTO-POST:
"teacher1.jpg" by Max Teacher, 0 likes
```

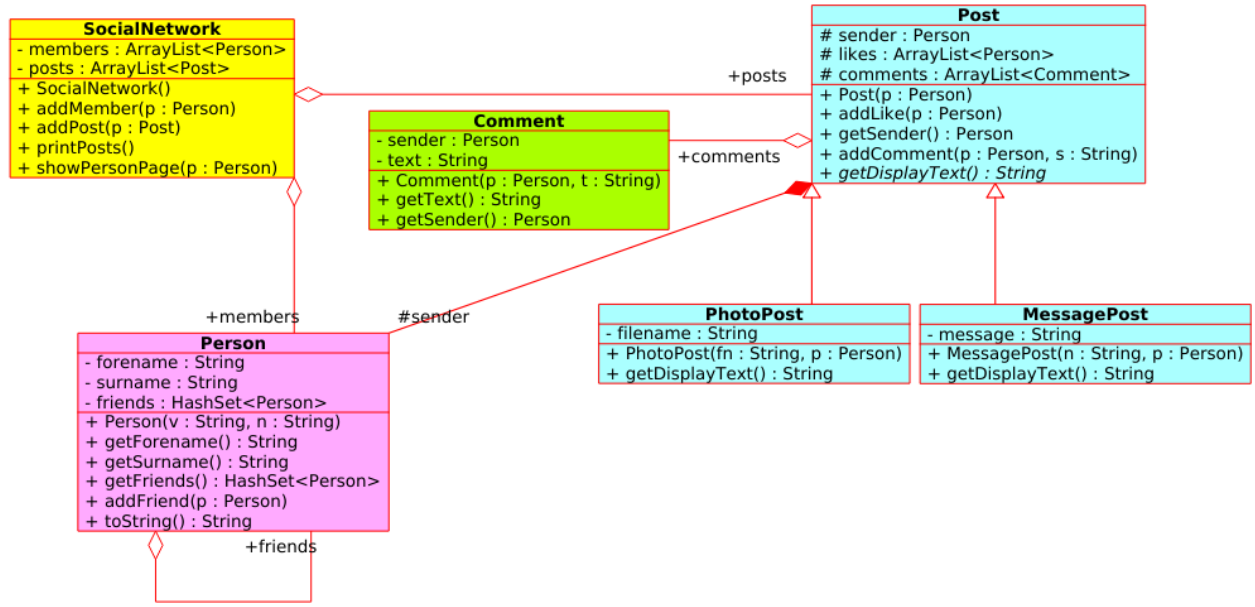
Lab: SocialNetwork1
Write the classes shown in the above uml diagram and test your code.

2. OOP – SocialNetwork2

The above code has some constraints:

- members can not have friends
- we dont know who sended a comment
- we dont know who made a like

The uml-diagram:



The main procedure:

```
    public static void main(String[] args) {
        // Person and friends
        Person person1 = new Person("Max", "Smith the I");
        Person person2 = new Person("Florin", "Smith the II");
        Person person3 = new Person("Chris", "Smith the III");
        Person person4 = new Person("Alex", "Smith the IV");

        person1.addFriend(person2);
        person1.addFriend(person3);

        // Posts and likes and comments
        MessagePost postPerson1 = new MessagePost("What is the best
coding language?", person1);
        postPerson1.addLike(person2);
        postPerson1.addLike(person3);

        postPerson1.addComment(person4, "Java,c++,c ...");
        postPerson1.addComment(person2, "I agree");


        MessagePost postPerson2 = new MessagePost("I like to design
software!", person2);
        postPerson2.addLike(person1);
        postPerson2.addComment(person1, "Oh no, its hardware. Thats the
best!");
```

```
      PhotoPost photoPostPerson1 = new PhotoPost(person1.getSurname()
+".jpg", person1);
      // ...

      // SocialNetwork
      SocialNetwork schoolBook = new SocialNetwork();
      schoolBook.addMember(person1);
      schoolBook.addMember(person2);
      schoolBook.addPost(postPerson1);
      schoolBook.addPost(postPerson2);
      schoolBook.addPost(photoPostPerson1);

      // output
      schoolBook.showPersonPage(person1);
      System.out.println("\n");
      schoolBook.showPersonPage(person2);
     }
```

The output:

```
PAGE of Max Smith the I
============================================================
Friends:
   Chris Smith the III
   Florin Smith the II
Posts:
   MESSAGE-POST: "What is the best coding language?" by Max Smith the I, 2 likes
      comment: Java,c++,c ... (Alex Smith the IV)
      comment: I agree (Florin Smith the II)

   PHOTO-POST: "Smith the I.jpg" by Max Smith the I, 0 likes


PAGE of Florin Smith the II
============================================================
Friends:
   Max Smith the I
Posts:
   MESSAGE-POST: "I like to design software!" by Florin Smith the II, 1 likes
      comment: Oh no, its hardware. Thats the best! (Max Smith the I)
```

Lab: SocialNetwork2
Write the classes shown in the above uml diagram and test your code intensive.

Tipp:

```
public void addFriend(Person p) {
       friends.add(p);
       p.friends.add(this); // we are friends! (both sides)
}
```

Tipp: create class Comment to hold the comment-text and who made the comment.

Tipp:
class Post: member likes becomes an ArrayList<Person> to store the Person, who likes that post. The size of the ArrayList likes holds the number of likes.