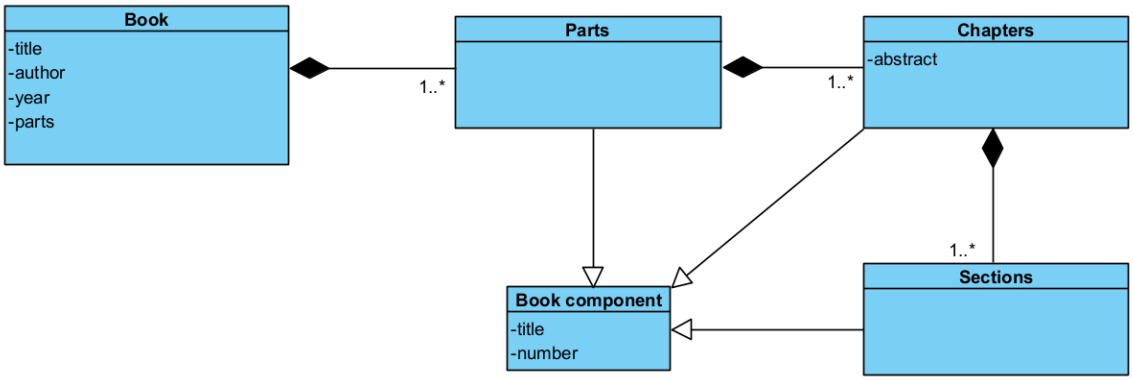
Student : Popa Ioan-Ciprian **Subgroup :** 5

Homework

Lab 6

1.



Code:

public class Parts extends BookComponent{

Private list <Chapters> chapters = newArrayList<>();

Private Book book;

}

public Chapters extends BookComponent{
private abstract;

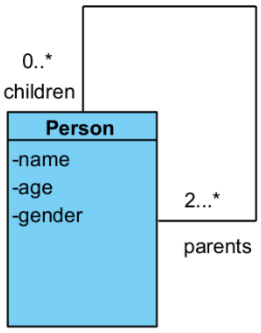
Private List<Sections> sections = newArrayList<>();

Private Parts parts;
}

Public Sections extends BookComponent{

Private Chapter chapter;
}

2.




```
class Person {
    private String name;
    private int age;
    private String gender;
    private ArrayList<Person> parents;
    public Person(String name, int age, String gender) {
        this.name = name;
        this.age = age;
        this.gender = gender;
        this.parents = new ArrayList<>();
    }
    public String getName() {
        return name;
    }
    public int getAge() {
        return age;
    }
    public String getGender() {
        return gender;
    }
    public void addParent(Person parent) {
        parents.add(parent);
    }
    public ArrayList<Person> getParents() {
        return parents;
    }
```

```
}
class Parent extends Person {
    private ArrayList<Person> children;
    public Parent(String name, int age, String gender) {
        super(name, age, gender);
        children = new ArrayList<>();
    }
    public void addChild(Person child) {
        children.add(child);
        child.addParent(this);
    }
    public ArrayList<Person> getChildren() {
        return children;
    }
}
class Child extends Person {
    public Child(String name, int age, String gender) {
        super(name, age, gender);
    }
}
public class FamilyTree {
    public static void main(String[] args) {
        Parent parent1 = new Parent("Popa", 21, "Male");
        Parent parent2 = new Parent("Roxana", 22, "Female");
        Child child1 = new Child("Georgiana", 19, "Female");
        Child child2 = new Child("Arthur", 8, "Male");
        parent1.addChild(child1);
        parent2.addChild(child1);
        parent2.addChild(child2);
        System.out.println("Parents of " + child1.getName() + ":");
        for (Person parent : child1.getParents()) {
            System.out.println(parent.getName())
```

```
    }
  }
}
```