SCHEMA:
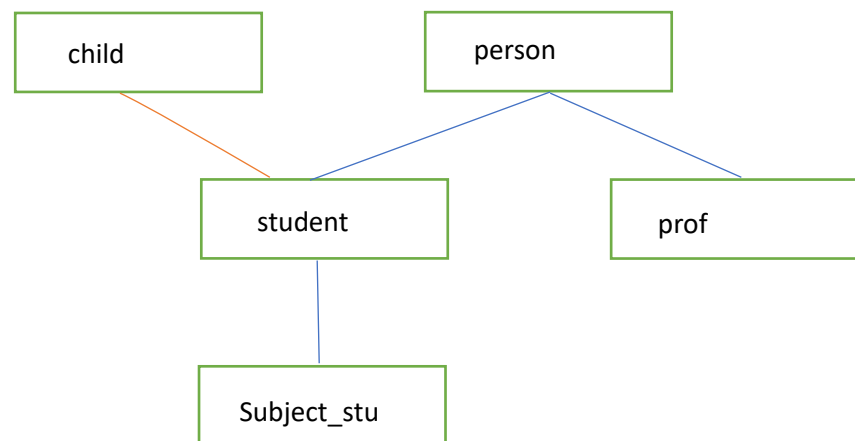

PROBLEM:

I am creating java class student, which has properties of a person, as well as the roles of him as a child of his parents. It also has a subject_stu child class, which represents the different subjects each students. There is also a prof class, which are child class of person

DESCRIPTION:

The person class has name, char, age as variables. The function getname returns the private name. The function Display() displays all the variables.It also has a function boom. It also has a constructor, which shows polymorphism

The student class has Rollno, branch, home and time as additional variables. This class has a constructor, a display function which prints values of 5 variables. It also has home_distance and time_parents, which are the functions being overridden from its interface "child",

The prof class has a constructor, also showing polymorphism.

The subject_stu class has a constructor, sethrs function, which sets value for private variable hours, gethrs function, which returns hour's value. This is encapsulation. It also has an exammarks function, which sets marks value.

Main.java:

This main function first creates a variable of student type, and then uses an overridden method display. Then, it creates a variable of subject_stu type. Then, it uses an overriden method of its parent. Then, it changes its private variable using its own function sethrs. Then it uses a method of its parents' interface home_distance. Then, it uses its own functions gethrs. Then it uses a function of its parents parent boom.

This way, the main file uses all possible permutation and combinations of different functions.

Output

```
Roll No = 22124002
Name = Aarav
Sex = M
Age = 18
Branch = MnC

Roll No = 2214034
Name = Aarsh
Sex = M
Age = 18
Branch = Mech

3
Name = Aarsh boom

Process finished with exit code 0
```