

## Encapsulation

- 1) Create a class to define user details and add the below-listed properties as accessible within this class only, except the role property. Since role can be accessible and updated within user, student and teacher classes, but not in their instance.

Required Properties :- Name, email

Optional Properties :- age, address, city, state, contact number, role

- 2) Create a class for student details and use details from the users class. Add the below-listed properties as accessible only within this class.

Required Properties :- class, rank

- 3) Create a class for teachers and use details from the users class. Add the below-listed properties as accessible only within this class.

Required Properties :- subject, classes handled by the teacher and years of experience

### **Note: Age restriction**

In case of a student, make sure the age value is greater than or equal to 5; in case of a teacher, it must be greater than 20, else don't update age value.

After defining the class, create student and teacher objects with the defined classes and update their properties with the use of getter, setter.