

School Hierarchy

Write the following classes in a single repl:

Person: has one String name, has a toString which returns the name like this: Freddy Frank

Student: extends person, has one new int grade, has a toString which returns name and grade level like this: Stevie Jones, 10th grade

Teacher extends person, has one new String subject, has a toString which returns name and subject like this: Freddy Frank, Mathematics

Student

Teacher extends Teacher, has two new Strings, mentorTeacher and university, has a toString which returns all the info like this: Sam Larkin, Mathematics, student teacher from Sonoma State, mentor teacher: Freddy Frank

Then write a School class which contains an ArrayList for all people involved in the School (Students, Teachers, and StudentTeachers) and a String for the School name. The constructor for this class accepts a String for the School name and creates an empty ArrayList to hold all the people. The addPerson() method adds the person to the ArrayList. The toString method prints each entry out, one line per entry.

Don't forget to add "import java.util.ArrayList;".

I recommend clicking the Run button as you finish each class to make sure that everything compiles as you go along to keep it easier to debug.

When you have this all and it compiles (and nothing prints), THEN up in the main method of the Main class, create a school named Analy High School, create and add two Students, one actually you, and another someone else in our class. Then create two Teachers, one actually me, and one another of your teachers here at Analy. Finally, create a Student Teacher and add that.

Finally, print the school.

Sample output is here:

```
Analy High School
```

```
Stevie Jones, 10th grade
```

```
Nevile Shute, 12th grade
```

```
Mr. Hays, Computer Programming
```

```
Ms. Trevino, Mathematics
```

```
Sam Larkin, Computer Programming, student teacher from Sonoma State, mentor  
teacher: Mr. Hays
```