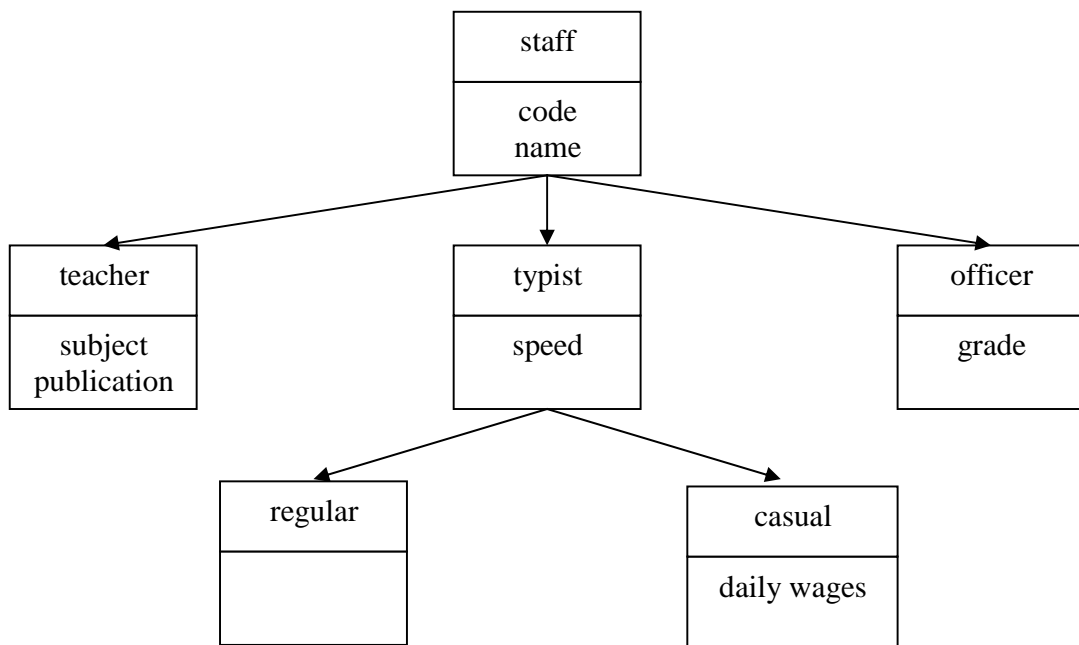


The University of Melbourne  
 Department of Computer Science and Software Engineering  
**433-254 Software Design**  
 Semester 2, 2003  
**Lab 4**  
 Week 5

1. An educational institution wishes to maintain a database of its employees. The database is divided into a number of classes whose hierarchical relationships are shown in Fig.1. The figure also shows the minimum information required for each class. Specify all the classes and define methods to create the database and retrieve individual information as and when required.



**Fig. 1**

2. The annual examination results of 100 students are tabulated as follows:

<i>Roll No.</i>	<i>Subject 1</i>	<i>Subject 2</i>	<i>Subject 3</i>
.	.	.	.
.	.	.	.
.	.	.	.

Write a program to read the data and determine the following:

- a) Total marks obtained by each student.
- b) The highest marks in each subject and the Roll No. of the student who secured it.
- c) The student who obtained the highest total marks.