

<i>ID</i>	<i>name</i>	<i>dept_name</i>	<i>salary</i>
76766	Crick	Biology	72000
45565	Katz	Comp. Sci.	75000
10101	Srinivasan	Comp. Sci.	65000
83821	Brandt	Comp. Sci.	92000
98345	Kim	Elec. Eng.	80000
12121	Wu	Finance	90000
76543	Singh	Finance	80000
32343	El Said	History	60000
58583	Califieri	History	62000
15151	Mozart	Music	40000
33456	Gold	Physics	87000
22222	Einstein	Physics	95000

Figure 3.13 Tuples of the *instructor* relation, grouped by the *dept_name* attribute.

Figure 3.13 shows the tuples in the *instructor* relation grouped by the *dept_name* attribute, which is the first step in computing the query result. The specified aggregate is computed for each group, and the result of the query is shown in Figure 3.14.

In contrast, consider the query “Find the average salary of all instructors.” We write this query as follows:

```
select avg (salary)
from instructor;
```

In this case the **group by** clause has been omitted, so the entire relation is treated as a single group.

<i>dept_name</i>	<i>avg_salary</i>
Biology	72000
Comp. Sci.	77333
Elec. Eng.	80000
Finance	85000
History	61000
Music	40000
Physics	91000

Figure 3.14 The result relation for the query “Find the average salary in each department”.