#### **Chemistry Laboratory Statements**

A laboratory has several chemists who work on one or more projects.

Chemists also may use certain kinds of equipment on each project.

The organization wishes to record assignDate – that is, the date when a given equipment item was assigned to a particular chemist working on a specified project – as well as total Hours, that is, the total number of hours the chemist has used the equipment for the project.

The organization also wants to track the usage of each type of equipment by a chemist. It does so by computing the average number of hours the chemist has used that equipment on all assigned projects.

A chemist must be assigned to at least one project and one equipment item. A given equipment item need not be assigned, and a given project need not be assigned to either a chemist or an equipment item.

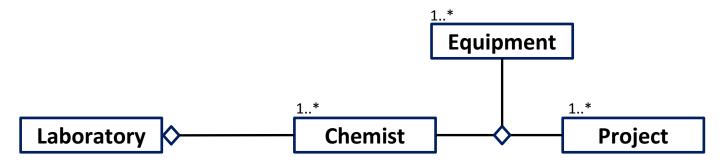
# **Chemistry Laboratory**<sub>1</sub>

A laboratory has several chemists who work on one or more projects.



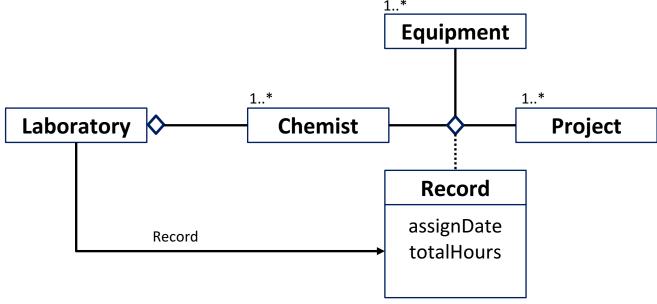
# **Chemistry Laboratory**<sub>2</sub>

Chemists also may use certain kinds of equipment on each project.



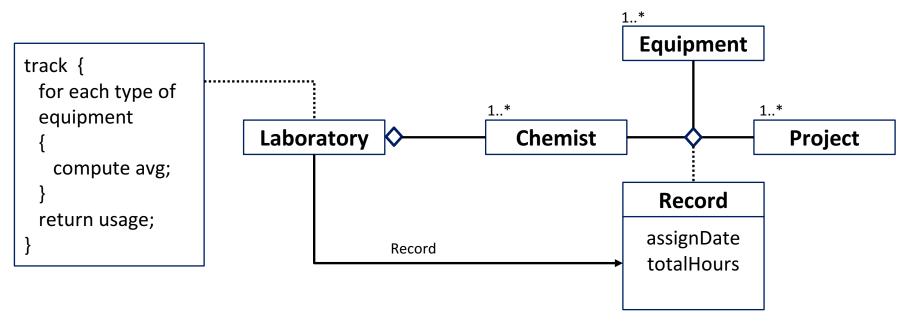
# **Chemistry Laboratory**<sub>3</sub>

The organization wishes to record assignDate – that is, the date when a given equipment item was assigned to a particular chemist working on a specified project – as well as total Hours, that is, the total number of hours the chemist has used the equipment for the project.  $\frac{1..*}{}$ 



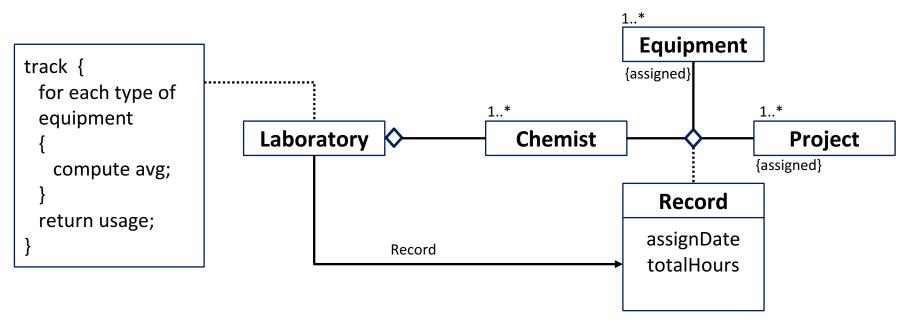
## **Chemistry Laboratory**<sub>4</sub>

The organization also wants to track the usage of each type of equipment by a chemist. It does so by computing the average number of hours the chemist has used that equipment on all assigned projects.



## **Chemistry Laboratory**<sub>5</sub>

A chemist must be assigned to at least one project and one equipment item. A given equipment item need not be assigned, and a given project need not be assigned to either a chemist or an equipment item.



#### **Chemistry Laboratory**

#### **Final Diagram**

