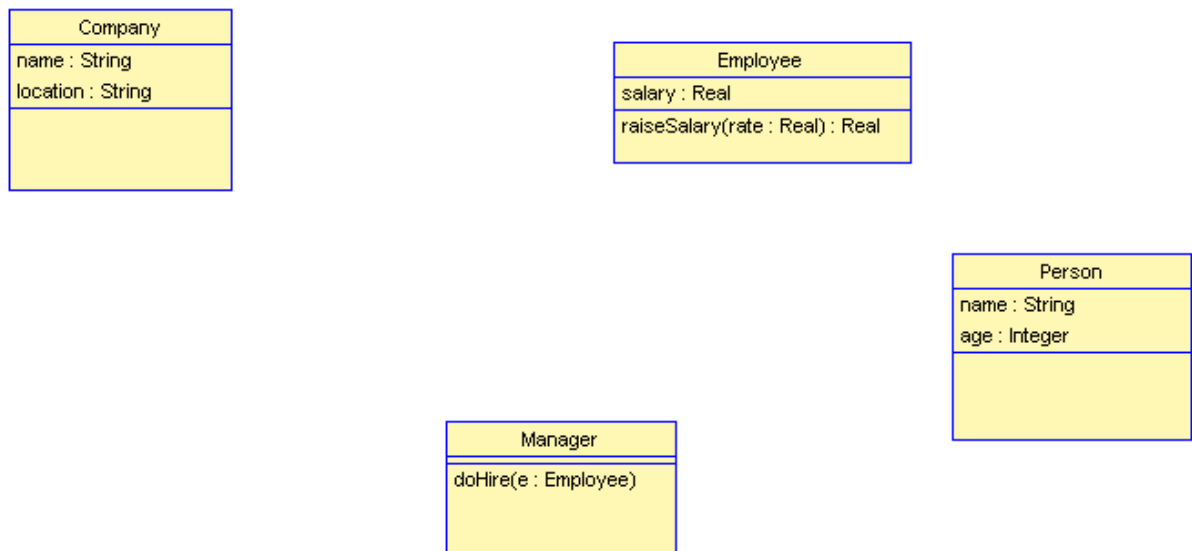


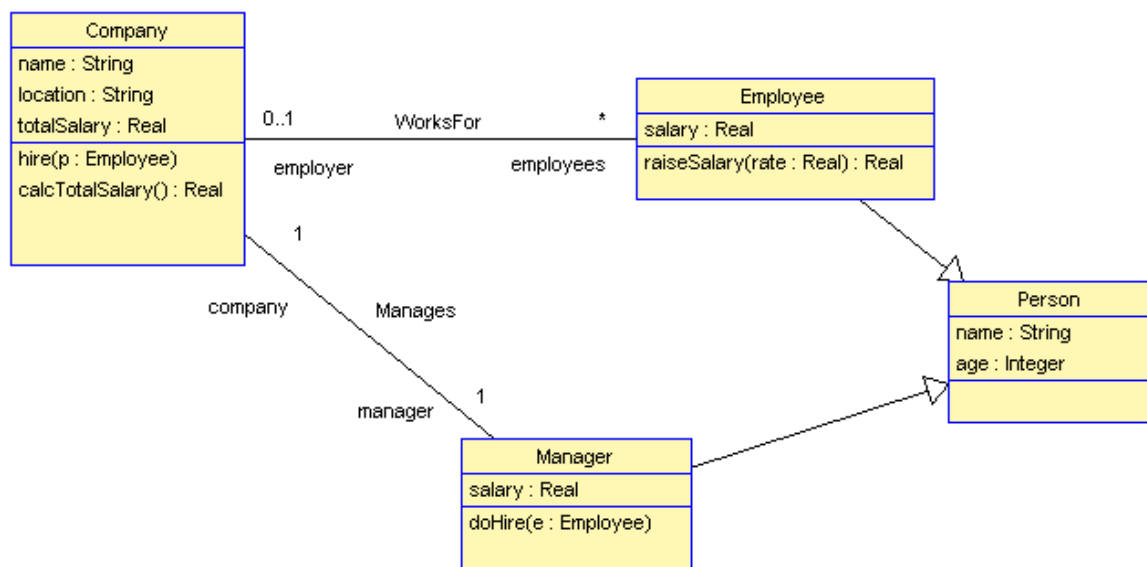
## Employee Lab Test

Two files are available to help you get started on this lab test: **employee.use** and **employee.soil**. You are required to copy each diagram to a Word document, **report.docx**, if possible save this document at the end of the test as a PDF and upload it to Brightspace along with **employee.use** and **employee.soil**.

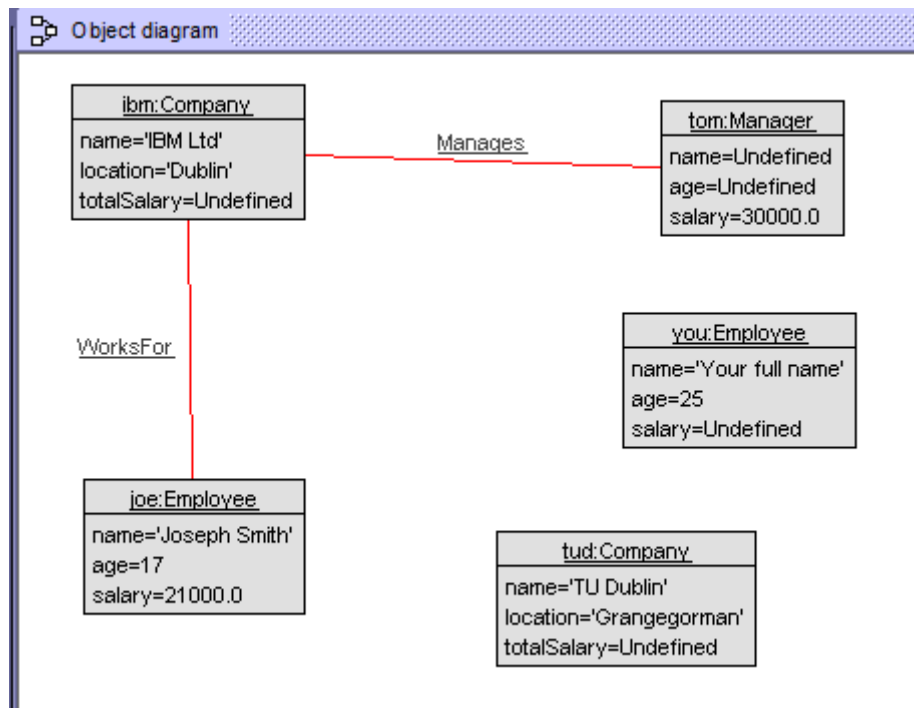
1. Start USE and load **employee.use**. You should get the following class diagram (aside from layout).



2. Then using a text editor, edit **employee.use** so that you get the following class diagram when it is reloaded into USE. Do not implement the operations just yet. **Copy and paste this diagram to report.docx.**



3. Then load **employee.soil** and using either menu options or the command/terminal window, construct the following object model.



4. Then set the name attribute of the **you** object to your actual full name.

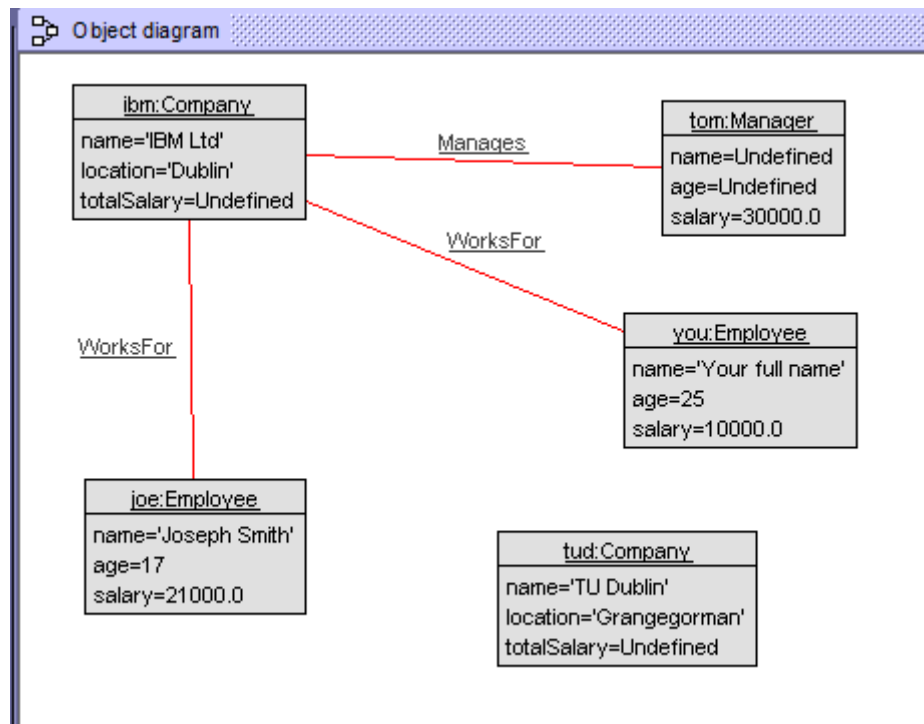
Save your object create/assignment commands in **employee.soil**. You can do this with menu **File | Save script (.soil)**.

Also copy and paste this diagram to **report.docx**.

5. Implement in SOIL the **doHire(e : Employee)** and **hire(p : Employee)** operations. The Manager **doHire()** should call Company **hire()**, that is when called, **doHire()** should in turn send a **hire()** message to a Company object.

The **hire()** operation as well as linking the company with the employee should also initialise the employee's salary to 10000.0.

If you succeed in this step, reload your USE code and SOIL code (**employee.soil**) and from the terminal or command prompt window execute the **doHire(p : Employee)** operation so that **tom** hires **you** (or object with your name) to get something like:



6. If step 5 worked, create a Sequence diagram view, rearrange it look well, and **copy both the object diagram and sequence diagram to report.docx**. Also resave SOIL commands in **employee.soil**
  
7. Implement the operation **calcTotalSalary() : Real** of the class Company in SOIL so that it adds together the salary of each employee and the manager, returns the result and also stores the result in the company **totalSalary** attribute (make sure that Manage has a salary attribute and **tom.salary** is 30000.0 as shown in earlier object diagram).  
  
 Reload USE model and soil file and execute the operation it if you can. You may find this difficult. Save employee.use and employee.soil.
  
8. If step 7 worked, open the sequence diagram view and **copy and paste both it and updated object diagram to report.docx**.
  
9. Save report.docx as PDF **report.pdf** (if you have time), and upload it along with employee.use and employee.soil to Brightspace.