

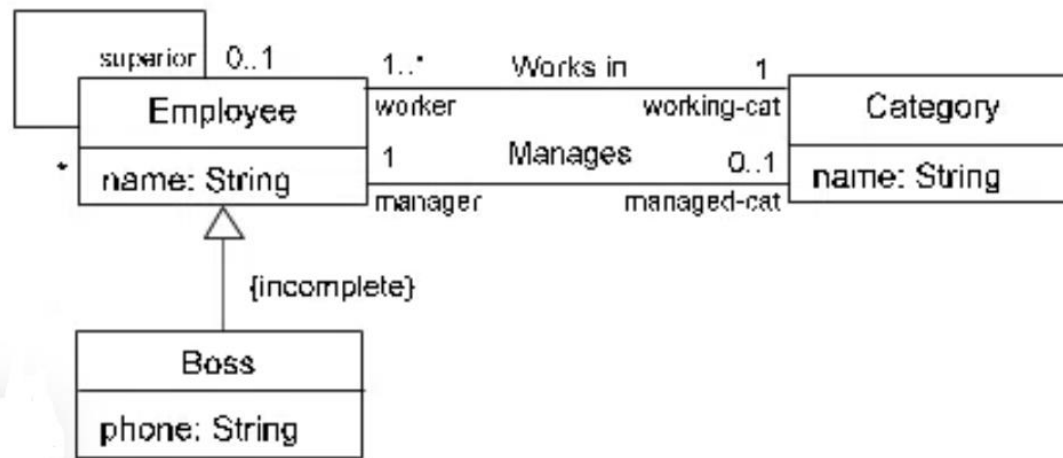
Quiz # 2(Section B)

Formal Methods 19/3/2024

Name: -----

Roll No:-----

For the following UML Class Diagram, write down constraints in OCL. (Total Points= 16, 2 points each)



1. All Employees have unique names

Context Employee inv: Employee.allinstances()->isUnique(name)

2. The manager of the category is also a worker

Context Category inv: self.worker->includes(self.manager)

3. The manager of any category has no superior

Context Category inv: self.manager.superior->isEmpty()

4. There are at least 4 workers in each category

Context Category inv: self.worker->size>=4

5. There can be at most one manager of each category

Context Category inv: self.manager->size=1

6. There is at least one worker named 'Ali' in each category

Context category inv: self.worker-> exists(name=Ali)

7. The name of the employee and his superior cannot be same.

Context Employee inv: self.name <> superior.name

8. Boss is superior to all workers.

Context Boss inv: self.superior->isEmpty()