

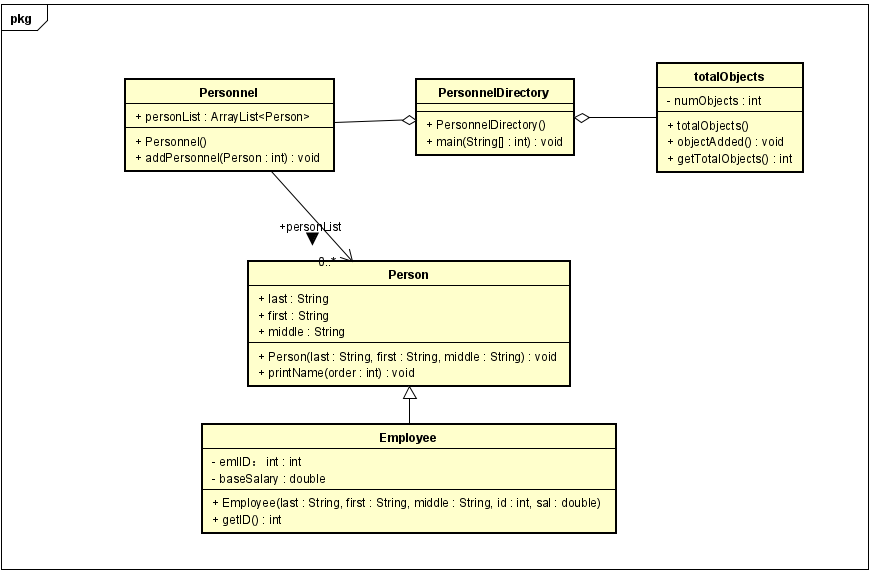
## CSE 460: Software Analysis and Design Directory Management System Phase I Submission

**Directions:**

Complete your work for Phase I Parts 1 and 2 in this document. Save and submit as a **single** PDF titled “Last Name\_First Name\_Directory Management System Project\_Phase I\_Submission”.

# Phase I, Part 1

Use the Astah tool to draw the class diagram for the current implementation of the university system. Use correct UML notations. When you have completed the diagram, take a clear screenshot and paste it in the space provided.



# Phase I, Part 2

In the code, identify object-oriented concept violations, content coupling, common coupling, control coupling and stamp coupling situations. Copy and paste the code segments that shows each coupling situation in the space provided. *You may use additional space as necessary.*

1. **Object-Oriented Concept Violations**

[paste code segments here]

**How would you fix these violations?**

[Write your answer in this space.]

1. **Content Coupling**

Person p1 = new Person(lastN, firstN, " ");

per.personList.add(p1);

**How would you fix this?**

Use the method ‘public void addPersonnel(Person p) {personList.add(p);}’ to perform the add action in personList.

1. **Common Coupling**

if(per.personList.get(i).first.equals(firstN) && per.personList.get(i).last.equals(lastN)){

found = true;

loc = i;

}

**How would you fix this?**

Create a return method in Personnel class to return a complete list, then perform same necessarily functionalities in main class.

1. **Control Coupling**

public void printName(int order){

if(order == 0) {

System.out.println(first + " " + middle + " " + last);

}

else if(order == 1) {

System.out.println(last + " ," + middle + " " + first);

}

else if(order == 2) {

System.out.println(last + " ," + first + " " + middle);

}

}

**How would you fix this?**

Instead of using one method, creating three different methods to perform the function of the order of 0, 1, 2

1. **Stamp Coupling**

for(int i=0; i<per.personList.size(); i++){

per.personList.get(i).printName(order);

}