Lab 1

You will work on a single source code (i.e., the Java Project titled Lab1.). Please see the README file to import Project folder Lab1 into your Eclipse workspace.

1. Please identify which parts of the source code contains ***content coupling*** and modify the code to remove *content coupling*.

2. Please identify which parts of the source code contains ***data coupling*** and modify the code further to remove *data coupling*.

3. ***Routine coupling*** occurs when several methods need to be called together to do something. For instance, (as you saw during the previous lecture) to transfer money M from account A to account B requires the following steps:
   - Remove money M from account A (e.g., `remove(M, A))`
   - Add money M to account B (e.g., `add(M, B))`

   Forgetting to call one of the methods would cause a problem. One solution to remove routine coupling, in this case, would be to create another method (e.g., `transfer(M, A, B))` that first calls method `remove(M, A)` and then calls method `add(M, B).`

   In the source code you have been working on during this lab session (i.e., the Java Project titled Lab1.), creating an instance of class `Person` takes several steps:
   - setting the `name` and `dob` in the constructor,
   - setting the `type` with a separate statement, and then
   - setting the `boss` or initializing the `worker` array.

   Try to fix this issue by modifying the source code further so (i.e., by doing as much initialization as possible in the constructor.).

4. **BONUS QUESTION:** The Boss – Worker relationship is in 2 places, implying ***routine coupling***—a bonus for adding a worker to a boss when the worker is created.

   Hint: Worker can be created without a boss, so allow this possibility.