MIDTERM PROJECT

\* Each class should have its own file.

Ex: class Person 🡪 Person.php

\* **Class Structure**

- All classes should have their own ***constructors***, ***getters/setters*** and ***toString*** methods.

- ***toString*** method should return all related (inherited and owned) properties.

|  |  |
| --- | --- |
| Class Name | Person |
| Properties | (private)  - name  - address  - age |

|  |  |
| --- | --- |
| Class Name | Employee |
| Properties | (private)  - companyName |
| Methods | (public)  - earnings (abstract method) |
| Overridden Method | - toString |
| Parent | Person |

|  |  |
| --- | --- |
| Class Name | CommissionEmployee |
| Properties | (private)  - regularSalary  - itemSold  - commission\_rate |
| Overridden Method | - toString |
| Parent | Employee |

|  |  |
| --- | --- |
| Class Name | HourlyEmployee |
| Properties | (private)  - hoursWorked  - rate |
| Overridden Method | - toString |
| Parent | Employee |

|  |  |
| --- | --- |
| Class Name | PieceWorker |
| Properties | (private)  - numberItems  - wagePerItem |
| Overridden Method | - toString |
| Parent | Employee |

Implement a class for representing a list of all employees that is also capable of computing the payroll.

Call your class **EmployeeRoster**.

The class **stores employee information in an array**.

Note that the employees can be **any of the three kinds** of employees but they **should be stored in the same array**.

Your class should contain appropriate constructors and the following:

**Property:** (private)

roster

**Methods**:

constructor(roster\_size) // sets the size or number of slots of your roster

add(Employee e);

remove(employee\_number);

count(); // returns number of employees

countCE(); // returns number of commission employees

countHE(); // returns number of hourly employees

countPE(); // returns number of piece workers

display(); // displays all employees

displayCE(); // displays all commission employees

displayHE(); // displays all hourly employees

displayPE(); // displays all piece workers

payroll(); // computes and displays all employees and their earnings

**Constructor:**

 public function \_\_construct($rosterSize) {

        $this-> roster = array\_fill(0, $ rosterSize, null);

}

**PROGRAM FLOW**

Just follow the flow presented during the project demonstration.

Template: (attached)

Main.php

index.php

Computation of Earnings

\* **Commission Employee**

the total earnings of a commission employee is the sum of the regular salary plus the commission.

commission will be based on the total number of items sold times the commission rate per item.

\* **Hourly Employee**

earnings is computed by having the product of the total number of hours worked and the rate.

but if the number of hours worked exceeds 40, the rate increases to 150% of the current rate.

(ex. rate=200; 150% = 300)

\* **Piece Worker**

employee is paid according to the number of Items finished times the wage per item.