**PMT: Sales Employees**

A Sales company will be starting up in the Florida next Spring. The owners are trying to determine what their monthly expenditure will be for sales employee salaries / wages. They plan to have three categories of employees: Sales Managers, Sales Executive, and Sales Trainee. The **monthly** wages for these categories of employees are determined as follows:

**Sales Managers**: A basic salary of $6,000, an allowance of $1,000 for medical expenses, a car allowance of $500, and an education allowance of $1,000. If monthlySale of Sales Manager is greater than or equal to $1,00,000 then only monthlyIncentive is added to salary. An **annual** incentive of $3,600 is also budgeted for managers.(Compute monthlyIncentive by dividing annual incentive by 12, add basic salary, medical expenses , car allowance, education allowance and monthlyIncentive to get the monthlywages)

**Sales Executive**: A basic salary of $3,000, $800 for medical expenses, a car allowance of $200, and an education allowance of $500.Sales Executives will get benefit of an **annual** incentive of $2,400 only if monthlySale is greater than or equal to $50,000. .(Compute monthlyIncentive by dividing annual incentive by 12, add basic salary, medical expenses , car allowance, education allowance and monthlyIncentive to get the monthlywages)

**Sales Trainee**: A basic salary of $1,500, $500 for medical expenses, and an education allowance of $400. Sales Trainee employees will also receive an **annual** incentive of $1,200 only if monthlySale is greater than or equal to $10,000.(Compute monthlyIncentive by dividing annual incentive by 12, add basic salary, medical expenses , education allowance and monthlyIncentive to get the monthlywages)

**Design Requirements**

Write a Java application to assist the owners of the Sales Company to compute their monthly expenditure on employees’ wages. Your application should have the following classes along with the interfaces provided:

* **Employee** (an **abstract** class) which implements the **IEmployee** interface;
* Classes **Sales\_Manager**, **Sales\_Executive**, and **Sales\_Trainee** which are subclasses of **Employee**.
* Class **SalesApp** which implements the interface **ISalesApp**.
* The test class **SalesTestClass** which is provided and should not be modified.

**public** **interface** ISalesApp {

/\*\*

\* Return an arrayList of the Sales employees

\* **@return** A list of the Sales employees

\*/

List<IEmployee> getEmployees();

/\*\*

\* Add the employee object to the list of employees of the Sales Company.

\* **@param** m The employee to be added

\*/

**void** addEmployee(IEmployee m);

/\*\*

\* Computes and returns the total monthly wages of all the employees of the Company.

\* **@return** Total wages of all employees

\*/

**double** getMonthlyEmployeeWages();

}

**public** **interface** IEmployee {

/\*\*

\* Return this employee's name.

\* **@return** This employee's name.

\*/

String getName();

/\*\*

\* Calculate and return the monthly wages for this employee.

\* **@return** This employee's monthly wages

\*/

**double** getMonthlyWage();

}

Also, you should test your classes using the test class below:

**public** **class** SalesTestClass {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

ISalesApp sales = **new** SalesApp();

IEmployee emp1 = **new** Sales\_Manager("John Smith",102500);

// Pass the employee name and monthlySale as parameters to constructor

IEmployee emp2 = **new** Sales\_Executive("Jane Jones",40000);

IEmployee emp3 = **new** Sales\_Trainee("Ruth Sharp",10000);

sales.addEmployee(emp1);

sales.addEmployee(emp2);

sales.addEmployee(emp3);

List<IEmployee> employees = sales.getEmployees();

System.***out***.println("Employee List");

System.***out***.println("=============\n");

**for**(**int** i = 0; i < employees.size(); i++) {

System.***out***.printf("%s \t$ %,6.2f\n", employees.get(i).getName(), employees.get(i).getMonthlyWage());

}

System.***out***.printf("\nTotal wages: \t$ %,6.2f\n\n", sales.getMonthlyEmployeeWages());

IEmployee emp4 = **new** Sales\_Manager("Dempsey Dean",80000);

IEmployee emp5 = **new** Sales\_Trainee("Sophia Weather",20000);

sales.addEmployee(emp4);

sales.addEmployee(emp5);

**for**(**int** i = 0; i < employees.size(); i++) {

System.***out***.printf("%s \t$ %,6.2f\n", employees.get(i).getName(), employees.get(i).getMonthlyWage());

}

System.***out***.printf("\nTotal wages: \t$ %,6.2f\n", sales.getMonthlyEmployeeWages());

}

**}**

**Expected output:**

Employee List

=============

John Smith $ 8,800.00

Jane Jones $ 4,500.00

Ruth Sharp $ 2,500.00

Total wages: $ 15,800.00

John Smith $ 8,800.00

Jane Jones $ 4,500.00

Ruth Sharp $ 2,500.00

Dempsey Dean $ 8,500.00

Sophia Weather $ 2,500.00

Total wages: $ 26,800.00

**PMT Submission**

Ask the lab instructor to test your program before you turn it in to the appropriate dropbox in Elearning. You should know before leaving the class whether you passed the PMT or not.