

Week 6 - Problem Set

Note: Try to make the best use of appropriate C++ features.

Implement the classes for the given UML.

The print() function is responsible for printing the details and the salary. StaffMember's << should call its print().

Details:

Volunteer::pay() — Returns 0.0 since volunteers are unpaid.

Volunteer::print() — Prints "Volunteer -", basic personal info, and salary.

Employee::pay() — Returns the fixed salary (pay_rate).

Employee::print() — Prints personal info and social security number (SSN).

Hourly::pay() — Returns pay_rate * hoursWorked as salary.

Hourly::addHours() — Adds additional hours worked.

Hourly::print() — Prints "Hourly -", employee info, hourly rate, hours worked, and calculated salary.

Executive::pay() — Returns pay_rate + bonus as total salary.

Executive::awardBonus() — Increases the executive's bonus.

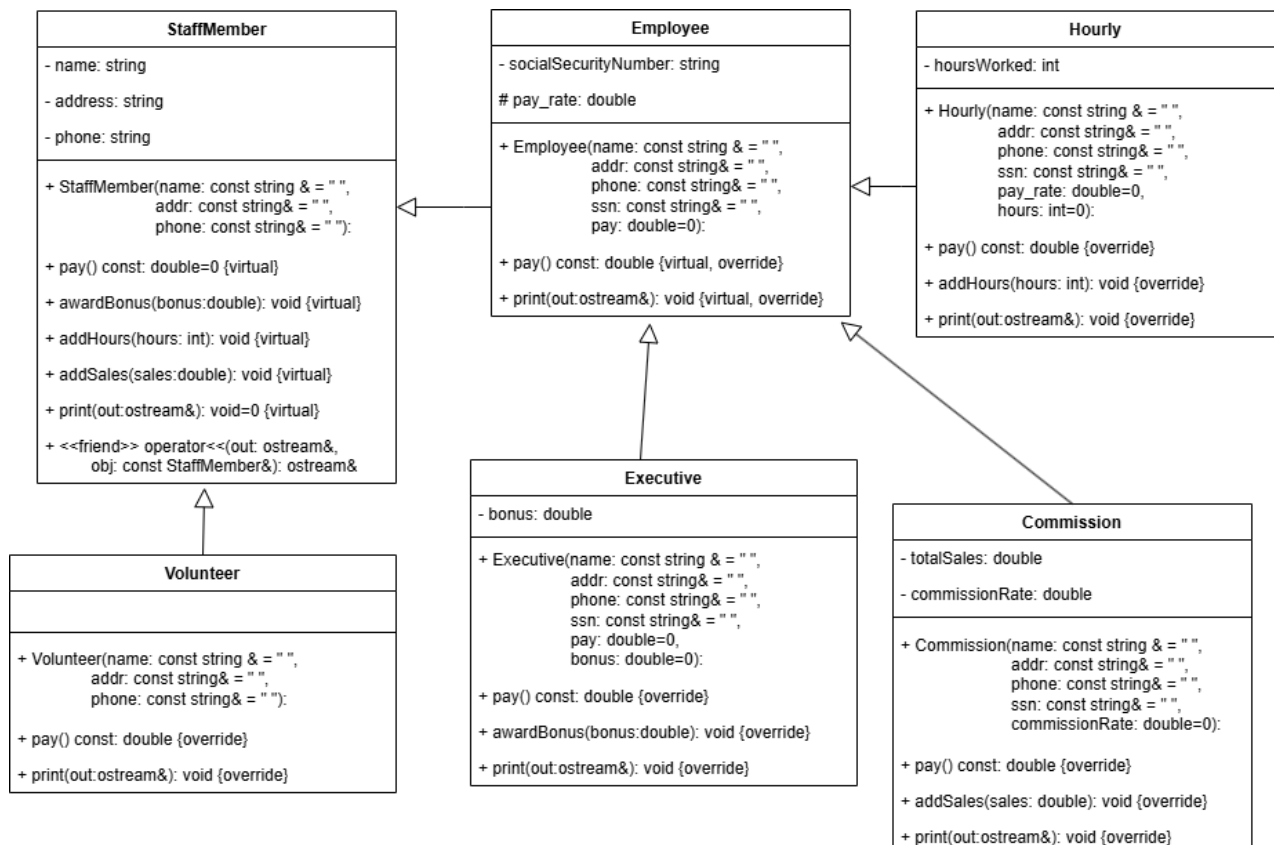
Executive::print() — Prints "Executive -", employee info, pay rate, bonus, and calculated salary.

Commission::pay() — Returns totalSales * commissionRate as salary (note: fixed pay_rate is not added here).

Commission::addSales() — Adds additional sales to the employee's total.

Commission::print() — Prints "Commission -", employee info, total sales, commission rate, and calculated salary.

The attached main function is used to test your implementation.



The output should be like below:

```
Name: Paulie, Address: 456 Off Line, Phone: 555-0101, SSN: 987-65-4321
Volunteer - Name: Adrianna, Address: 987 Babe Blvd., Phone: 555-8374, Pay: 0
Hourly - Name: Michael, Address: 678 Fifth Ave., Phone: 555-0690, SSN: 958-47-3625, Pay Rate: 10.55, Hours Worked: 25, Pay: 263.75
Commission - Name: Michael, Address: 678 Fifth Ave., Phone: 555-0690, SSN: 958-47-3625, Total Sales: 225, Commission Rate: 0.1, Pay: 22.5
Executive - Name: Tony, Address: 123 Main Line, Phone: 555-0469, SSN: 123-45-6789, Pay Rate: 1023.07, Bonus: 345, Pay: 1368.07
```