

Sunday, 27. April 2025

Homework 3

APC

A. Task 1

Summary

Attribute	Visibility	AccountManager	CompanyManager	Audit
owner	Public			
balance	Private			
getBalance()	Public			
pin	Protected			
internalNote	Package-private			

Alternative solutions: Add public getters and setters to control information access

Difference between protected and private+getter?

- Protected lets subclasses access the variable directly
- Private + Getter: Private hides all fields which is declared by it, even from subclasses and classes of same package. Getters allow the developers to control how they give access to their variables

B. Task 2

1. Static type of m1? -> Message

2. Dynamic type of m1? -> Email

3. Which method is called and why?

m1.getType() calls Email.getType() because Java resolves at runtime dynamically for overridden methods

4. Why can't send() be called?

Because the static type of m1 is Message, and Message doesn't have a send() method

5. How to call send() safely?

See code