CS251 – Introduction to Software Engineering, 2021 Each student fills this form for his program and gives it to TA \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The questions to answer about each program are included in the following form. Print and fill this form and bring with you to the discussion.

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Group:

Which of the following Java / OOP features did you use in your program?

Polymoriphsim /override/inheritance/Aggregation

Which Program (Idea for task 2) did you choose?

Problem 2 and problem 3 and main class

1. How many classes did you create and their names?

4 classes main, client, Commercial Client and bank

2. How many different access specifiers did you use and their names?

three access specifiers (private, public and protected)

3. How many Java coding style rules did you use and which ones?

2 aggregation and inheritance

4. How many Javadoc tags did you use and which ones?

yes, in all functions and constructors

5. Did you use inheritance? When and why?

yes, in commercial Client class

6. Did you use method overriding? When and why?

yes, we use it in toString function to change the implementation

7. Did you use method composition? When and why?

yes, three times in bank , account, client

8. Did you use method polymorphism? When and why?

yes, in toString function

Draw in the space below a simple UML class diagram that shows your main classes, their attributes and operations and their interactions with each other.

|  |
| --- |
| Account |
| -Account number:int  -balance:float |
| +account()  +account(b:float;a:int)  +set account number(a:int):void  +set balance(b:float):void  +get account number():int  +get balance():float  +Withdraw(n:float):void  +deposit(n:float):void  +tostring():string |

|  |
| --- |
| Clint |
| -name:string  -nationalID:string  -address:string  -phone:int  -acc:account |
| +client()  +client(name:string;nationalID:string;address:string;phone:int;acc:acc)  +set name (name : string):void  +set nationalID(nationalID:string):void  +set address(address:string):void  +set phone (phone :int):void  +set acc (acc:account):void  +get acc():account |

|  |
| --- |
| CommercialClient |
| -commercialclient:srring |
| +CommercialClient()  +commercialclient(name:string;nationalID:string;address:string;phone:int;acc:acc)  +set commercialclient(commercialclient:string) :void  +get commercialclient():string |

|  |
| --- |
| bank |
| -name:string  -address :string  -phone :int |
| +bank()  +bank(name:string;address:string;phone:int)  +set name(name:string):void  +set address(address :string):void  +set phone(phone:int):void  +get name():string  +get address():string  +get phone():int |

|  |
| --- |
| Special account |
| +special account()  +special account(balance:float;accountnumber:int)  +with draw():float |