Week 5 Homework Q26

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CE480 - Java and Internet Application

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# Author Note

# The Question

1. Inheritance + Aggregation

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| A |

| String name |

| --------- --------- |

| | B | | F | |

| | int b | | int f | |

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| E |

| int e |

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| | D | |

| | int d | |

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Note:

* + Each class must implement 4 types of member functions
    - Helping function
    - private void trace(String s) {
    - System.out.println(s);
    - }

* + - Access functions
      * get
      * set
      * predicate
        + class A, B, D, E, F
        + isLargeValue()

==> Check whether the values of all its attributes are greater than 100. For example, class E's isLargeValue() returns true if all the values of b, f, d, e are greater than 100.

* + - * + class A
        + isBruceLee()
        + ==> Check whether the value of the attribute "name" is "Bruce Lee".

* + - Implementor function
      * class A, B, D, E, F
      * changetoZero()

==> The values of all its numerical attributes are set to 0. For example, class E's changeroZero() has this result:

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| A |

| String name |

| ----------- ----------- |

| | B | | F | |

| | int b=0 | | int f=0 | |

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| E |

| int e=0 |

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| | D | |

| | int d=0 | |

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class A

changeName(String new\_name)

==> The value of the attribute "name" is changed to a new name.

class A, B, D, E, F

* + - * + toString()
        + clone()
        + equals()

main function

Create this object eObj

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| A |

| String name="jack" |

| ----------- ----------- |

| | B | | F | |

| | int b=1 | | int f=2 | |

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| E |

| int e=3 |

| ----------------- |

| | D | |

| | int d=4 | |

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Display the values of all the attributes of eObj

Change the values of eObj to

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| A |

| String name="jack" |

| ----------- ----------- |

| | B | | F | |

| | int b=4 | | int f=5 | |

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| E |

| int e=6 |

| ----------------- |

| | D | |

| | int d=7 | |

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Display the values of all the attributes of eObj

Clone the eObj to create eObj1

Display the values of all the attributes of eObj1

Check whether eObj is equal to eObj1

* + References
    - [Class containg two layers of simple object attribute](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/java_class/slide/classStruct.htm#olomsoatce)
    - [One layer of simple object attribute + toString() + clone() + equals()](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/java_class/slide/classStruct.htm#cols)
    - [get/set](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/java_class/slide/get_set.html)
    - [4 Types of Member Functions](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/java_class/slide/javaMemFunc.html)
    - [Summary of toString(), clone(), equals()](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/java_class/slide/summary_table.html)
    - [Inheritance Class Structure](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/inheritance/slide/inhStruct.html)

===============================The Code=============================

**A.java**

Refrence

[https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/inheritance/slide/exercises4.htmlLinks to an external site.](https://hc.labnet.sfbu.edu/~henry/sfbu/course/introjava/inheritance/slide/exercises4.html)

Q26 ==> Aggregation and inheritance