

20251022 Wednesday

- Quiz #3
- 0 Sorry. My fault.
The question/problem is not well defined
- 1 KISS
- 2 class/object
- 3 inheritance
- 4 overload/override
- 5 toString() System.out.println(object);
- 6 PolyMorphism

- 1 Write Java code to define a class "Person". A person has a "name" and "age". Please include a method

```
class Person{  
    String name;  
    int age;  
    public Person(String name, int age){  
        this.name = name;  
        this.age = age;  
    }  
    public String toString(){  
        System.out.println("person "+name+" is "+age);  
        return "";  
    }  
}
```

- 2 Write Java code to define a class "Student", as a subclass of class "Person". A student has a "studentID". Please include TWO methods to overload and override the "toString()" method in the class "Person".

```
class Student extends Person{
    int studentID;
    public Student(String name, int age, int id){
        super(name, age);
        studentID = id;
    }
    public String toString(){ //override
        System.out.println("student "+name+" is "+age+", id: "
            +studentID);
        return "";
    }
    public String toString(int x){
        toString();
        return "";
    }
}
```

- 3 Write a Test class that includes the main method. In this Test class, instantiate/create ONE object of Person and ONE object of Student. Print all the attributes/data and call/test ALL the "toString()" methods.

```
public class Test{  
    public static void main(String[] args){  
        Person p = new Person("John", 20);  
        Student s = new Student("Jane", 21, 1234);  
        System.out.println(p.name);  
        System.out.println(p.age);  
        p.toString();  
        System.out.println( p );  
        System.out.println(s.name);  
        System.out.println(s.age);  
        System.out.println(s.studentID);  
        s.toString();  
        s.toString(123);  
        System.out.println( s );  
    }  
}
```

- Please practice polymorphism following slides of Monday.

- Read textbook and practice.