

オブジェクト指向プログラミング No.5

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ソースコード

Seiseki.java

```
public class Seiseki{

    private String course  =  "特別研究一";

    private String category  =  "専門科目";

    private int credit  =  6;

    private int grade  =  5;


    private static String[] title1 = new String[5];

    private static String[] title2 = new String[5];

    private static String[] title3 = new String[5];

    private static int i1 = 0;

    private static int i2 = 0;

    private static int i3 = 0;
```

```
public Seiseki() {}
```

```
public Seiseki(String course){  
  
    this.course = course;  
  
}
```

```
public Seiseki(String course, String category){  
  
    this(course);  
  
    this.category = category;  
  
}
```

```
public Seiseki(String course, String category, int credit){  
  
    this(course, category);  
  
    if (credit != 1 && credit != 2 && credit != 4){  
  
        credit = 2;
```

```
    }

    this.credit = credit;
}

public Seiseki(String course, String category, int credit, int grade){

    this(course, category, credit);

    if ( grade > 5 || grade < 0){

        grade = 0;

    }

    this.grade = grade;
}

public String GetCourse(){

    return course;

}
```

```
public String GetCategory(){  
  
    return category;  
  
}
```

```
public int GetCredit(){  
  
    return credit;  
  
}
```

```
public int GetGrade(){  
  
    return grade;  
  
}
```

```
public String GetGradeName(){  
  
    String str = "";  
  
    switch(grade){  
  
        case 5:
```

```
str = "秀";
```

```
break;
```

```
case 4:
```

```
str = "優";
```

```
break;
```

```
case 3:
```

```
str = "良";
```

```
break;
```

```
case 2:
```

```
str = "可";
```

```
break;
```

```
case 1:
```

```
case 0:
```

```
str = "不可";
```

```
break;
```

```
}
```

```
        return str;
    }

    public void putTitle(){

        switch(category){

            case "專門科目":

                title1[i1] = course;

                i1++;

                break;

            case "基礎数学科目":

                title2[i2] = course;

                i2++;

                break;

            case "教養科目":

                title3[i3] = course;

                i3++;
```

```
                break;

            }

    }

    public static void printTitle(){

        System.out.println("-----專門科目-----");

        for(int i = 0; i < i1; i++)

            System.out.println(title1[i]);

        System.out.println("-----基礎数学-----");

        for(int i = 0; i < i2; i++)

            System.out.println(title2[i]);

        System.out.println("-----教養科目-----");

        for(int i = 0; i < i3; i++)

            System.out.println(title3[i]);
```

```
    }

    public void printSeiseki(){

        System.out.println("単位取得: " + GetGradeName());

    }

    public String toString(){

        return String.format("科目名:%s, 種類:%s, 単位:%d, 成績:%d", course, category, credit, grade);

    }

}
```

SeisekiTester.java

```
class SeisekiTester{

    public static void main(String[] args){

        Seiseki Tokyo = new Seiseki("オブジェクト指向プログラミング")
```



```
グ", "専門科目", 2, 5);
```

```
Seiseki Metropolitan = new Seiseki("線形代数", "基礎数学科  
目", 3, 2);
```

```
Seiseki University = new Seiseki("実践英語", "教養科目", 4,  
7);
```

```
Seiseki hun = new Seiseki("実践英語 2", "教養科目", 5, 6);
```

```
String s = Tokyo.toString();
```

```
System.out.println(s);
```

```
String l = Metropolitan.toString();
```

```
System.out.println(l);
```

```
String m = University.toString();
```

```
System.out.println(m);
```

```
String k = hun.toString();
```

```
System.out.println(k);
```

```
Tokyo.putTitle();
```

```
        Metropolitan.putTitle();

        University.putTitle();

        hun.putTitle();

        hun.printTitle();

    }

}
```

実行結果

```
gotouwatarusMBP:No.5 gotouwataru$ java SeisekiTester
```

科目名:オブジェクト指向プログラミング, 種類:専門科目, 単位:2, 成績:5

科目名:線形代数, 種類:基礎数学科目, 単位:2, 成績:2

科目名:実践英語, 種類:教養科目, 単位:4, 成績:0

科目名:実践英語 2, 種類:教養科目, 単位:4, 成績:0

-----専門科目-----

オブジェクト指向プログラミング

-----基礎数学-----

線形代数

-----教養科目-----

実践英語

実践英語 2