Java enum example

Some of the Java enum examples, and how to use it, nothing special, just for self-reference.

> **Note**
> Consider the Enum type if your program consists of a fixed set of constants, like seasons of the year, operations calculator, user status and etc.

1. Basic Enum

UserStatus.java

```java
public enum UserStatus {
    PENDING,
    ACTIVE,
    INACTIVE,
    DELETED;
}
```

Test.java

```java
public class Test {

    public static void main(String[] args) {

        //ACTIVE
        System.out.println(UserStatus.ACTIVE);

    }

}
```

2. Enum + Instance field

WhoisRIR.java

```java
public enum WhoisRIR {
    ARIN("whois.arin.net"),
    RIPE("whois.ripe.net"),
    APNIC("whois.apnic.net"),
    AFRINIC("whois.afrinic.net"),
    LACNIC("whois.lacnic.net"),
    JPNIC("whois.nic.ad.jp"),
    KRNIC("whois.nic.or.kr"),
    CNNIC("ipwhois.cnnic.cn"),
    UNKNOWN("");

    private String url;

    WhoisRIR(String url) {
        this.url = url;
    }

    public String url() {
        return url;
    }
}
```

Test.java

```java
public class Test {

    public static void main(String[] args) {

        //whois.arin.net
        System.out.println(WhoisRIR.ARIN.url());

    }

}
```

3. Enum + Method + Some logic

Operation.java

```java
public enum Operation {
    PLUS,
    MINUS,
    TIMES,
    DIVIDE;

    double calculate(double x, double y) {
        switch (this) {
            case PLUS:
                return x + y;
            case MINUS:
                return x - y;
            case TIMES:
                return x * y;
            case DIVIDE:
                return x / y;
            default:
                throw new AssertionError("Unknown operations " + this);
        }
    }

}
```

Test.java

```
public class Test {

    public static void main(String[] args) {

        double result = Operation.PLUS.calculate(1, 2);
        System.out.println(result); //3.0

    }

}
```

4. How to use Enum

4.1 To loop a Enum object.

```
public class Test {

    public static void main(String[] args) {

        for (UserStatus status : UserStatus.values()) {
            System.out.println(status);
        }

    }

}
```

Output

```
PENDING
ACTIVE
INACTIVE
DELETED
```

4.2 To compare the Enum values, use `==` operator.

```
public class Test {

    public static void main(String[] args) {

        WhoisRIR rir = WhoisRIR.APNIC;

        if(rir == WhoisRIR.APNIC) {
            System.out.println("This is APNIC : " + rir.url());
        }

    }

}
```

Output

```
This is APNIC : whois.apnic.net
```

4.3 Switch case.

```
public class Test {

    public static void main(String[] args) {

        WhoisRIR rir = WhoisRIR.RIPE;

        switch (rir) {
            case ARIN:
                System.out.println("This is ARIN");
                break;
            case APNIC:
                System.out.println("This is APNIC");
                break;
            case RIPE:
                System.out.println("This is RIPE");
                break;
            default:
                throw new AssertionError("Unknown RIR " + rir);

        }

    }
}
```

Output

```
This is RIPE
```

4.2 Convert a String to Enum object.

```
public class Test {

    public static void main(String[] args) {

        //enum valueOf + uppercase
        Operation op = Operation.valueOf("times".toUpperCase());
        System.out.println(op.calculate(10, 3));

    }
}
```

Output

```
30.0
```

Done.

References

1. Oracle Doc – Enum Types (http://docs.oracle.com/javase/tutorial/java/javaOO/enum.html)
2. Stackoverflow : Comparing Java enum members: == or equals() (http://stackoverflow.com/questions/1750435/comparing-java-enum-members-or-equals)
3. Java – Convert String to Enum object (http://www.mkyong.com/java/java-convert-string-to-enum-object/)
4. Java – Compare Enum value (http://www.mkyong.com/java/java-compare-enum-value/)

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However, doing more practice on Enum , I noticed that – I get Compile time error when I declare constructor before declaring Enum constants.

Could you please justify why did it happen ?

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Kalyan
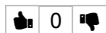
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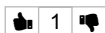ref: http://docs.oracle.com/javase/tutorial/java/javaOO/enum.html (http://docs.oracle.com/javase/tutorial/java/javaOO/enum.html)

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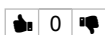[…] Java Enum Example: An interesting way to use Enums, take a look. […]

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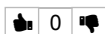👍 0 👎   ↩ REPLY   ⊙ 5 months 8 days ago

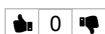### Navneet

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Pankaj

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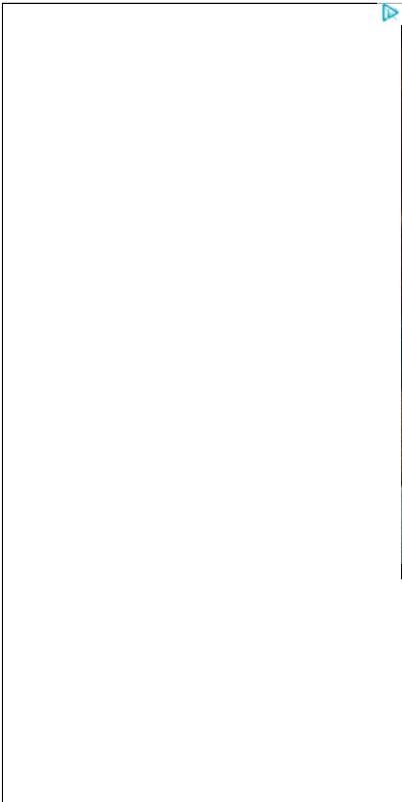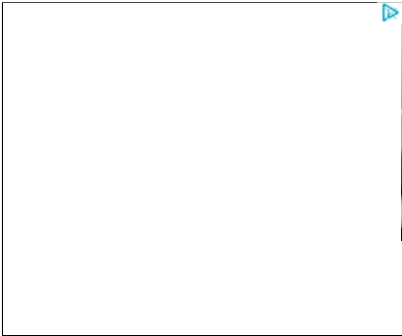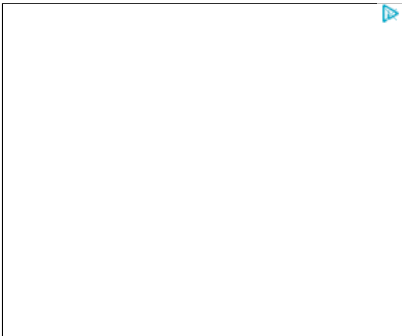
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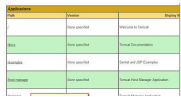**JUnit – Expected Exceptions Test**

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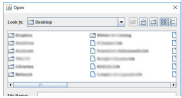**Java 8 – How to sort a Map**
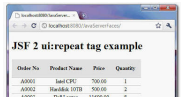
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