UTILISATION DES ENUM EN JAVA … MAIS EN MODIFIANT LE CODE

LINK TO THE PATH

```
enum Direction { North, East, South, West }

public class Main {
    public static final String label(Direction d) {
        switch (d) {
            case North : return "north";
            case East : return "east";
            case South : return "south";
            //case West : return "west";
        }
        throw new IllegalArgumentException("not a valid direction");
    }

    public static void main(String args[]) {
     System.out.println(label(Direction.East));
     System.out.println(label(Direction.West));
    }
}
```

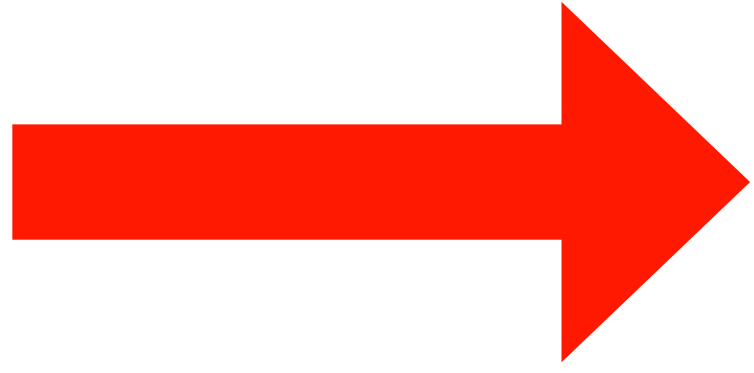
```
Exception in thread "main" java.lang.IllegalArgumentException: not a valid direction
```

Runtime ERROR

Le compilateur ne sait pas détecter si nous avons traité tous les cas !!!

MIAGE M2 - QUALITÉ DU SI - THOMAS HAESSLÉ

Indice sur le problème



LINK TO THE PATH

UTILISATION DES ENUM EN JAVA … MAIS EN MODIFIANT LE CODE


```java
enum Direction { North, East, South, West }

public class Main {
    public static final String label(Direction d) {
        switch (d) {
            case North : return "north";
            case East : return "east";
            case South : return "south";
            //case West : return "west";
        }
        throw new IllegalArgumentException("not a valid direction");
    }

    public static void main(String args[]) {
     System.out.println(label(Direction.East));
     System.out.println(label(Direction.West));
    }
}
```

Runtime ERROR

```
Exception in thread "main" java.lang.IllegalArgumentException: not a valid direction
```

Le compilateur ne sait pas détecter si nous avons traité tous les cas !!!

LINK TO THE PATH

IMPLÉMENTONS NOTRE ENUM EN JAVA … IL PARAIT QUE JAVA 14 A DU PATTERN MATCHING

```java
interface Direction{};
class North implements Direction{};
class East implements Direction{};
class South implements Direction{};
class West implements Direction{};

public class Main {
    public static final String label(Direction d) {
        if(d instanceof North dn){
            return "north";
        }else if(d instanceof East de){
            return "east";
        }else if(d instanceof South ds){
            return "south";
        }else if(d instanceof West dw){
            return « west";
        }
    }

    public static void main(String args[]) {
     System.out.println(label(new East()));
     System.out.println(label(new West()));
    }
}
```