

# Enums

# What is an Enum

- Enums are a way to create a custom datatype with some functionalities. They define constants (Which are just objects)
- Enums internally use classes, so they have methods and constructors
- Oracle documentation:  
<https://docs.oracle.com/javase/8/docs/api/java/lang/Enum.html>

## Creating an Enum

Create a new java file, but instead of defining a class or an interface, create an enum

```
public enum Seasons {  
  
}
```

Constants are declared in an enum. Common convention for naming constants is to use all uppercase letters

```
public enum Seasons {  
  
    SUMMER, FALL, WINTER, SPRING  
  
}
```

# Using Enums

```
Seasons season = Seasons.WINTER;

switch (season){
    case FALL:
        System.out.println("Season is fall");
        break;
    case WINTER:
        System.out.println("Season is Winter");
        break;
    case SPRING:
        System.out.println("Season is Spring");
        break;
    case SUMMER:
        System.out.println("Season is Summer");
}
```

```
Seasons season1 = Seasons.FALL;
Seasons season2 = Seasons.WINTER;
Seasons season3 = Seasons.SUMMER;
Seasons season4 = Seasons.SPRING;
```

# Enum in Selenium

```
public enum Keys implements CharSequence {  
    NULL('\ue000'),  
    CANCEL('\ue001'),  
    HELP('\ue002'),  
    BACK_SPACE('\ue003'),  
    TAB('\ue004'),  
    CLEAR('\ue005'),  
    RETURN('\ue006'),  
    ENTER('\ue007'),  
    SHIFT('\ue008'),  
    LEFT_SHIFT(SHIFT),  
    CONTROL('\ue009'),  
    LEFT_CONTROL(CONTROL),  
    ALT('\ue00a'),  
    LEFT_ALT(ALT),
```

Keys enum implementation

```
driver.findElement(By.id("global-enhancements-search-query")).sendKeys(Keys.ENTER);
```

```
private final char keyCode;  
private final int codePoint;  
  
private Keys(Keys key) { this(key.charAt(0)); }  
  
private Keys(char keyCode) {  
    this.keyCode = keyCode;  
    this.codePoint = String.valueOf(keyCode).codePoints().findFirst().orElse(0);  
}  
  
public int getCodePoint() { return this.codePoint; }  
  
public char charAt(int index) { return index == 0 ? this.keyCode : '\u0000'; }  
  
public int length() { return 1; }  
  
public CharSequence subSequence(int start, int end) {  
    if (start == 0 && end == 1) {  
        return String.valueOf(this.keyCode);  
    }  
    return "";  
}
```

## Possible use in database

```
enum DataBase {USERS,SALES,VIDEOS}

Connection connection;

public void openConnection(DataBase db) {
    switch (db) {
        case USERS:
            // connection = Connect("user")
            // code that will connect us to the users database
        case SALES:
            // connection = Connect("sales")
            // code that will connect us to the sales database
        case VIDEOS:
            // connection = Connect("videos")
            // code that will connect us to the video database
    }
}
```