



## UD 7. Transformación con XSLT

### EJERCICIOS

Lenguaje de marcas y sistemas de gestión de la información

1ro CFGS DAW

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2020/2021

## 1. PARTIENDO DEL XML RESUELVE LOS EJERCICIOS

El XML está en el aula virtual y se llama plantas.xml, aquí te muestro un resumen de su estructura:

```
<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/xsl" href="transformacion3-1.xsl"?>
<catalog>
  <plant>
    <common>Bloodroot</common>
    <botanical>Sanguinaria canadensis</botanical>
    <zone>4</zone>
    <light>Mostly Shady</light>
    <price>$2.44</price>
    <availability>031599</availability>
  </plant>
  <plant>
    <common>Columbine</common>
    <botanical>Aquilegia canadensis</botanical>
    <zone>3</zone>
    <light>Mostly Shady</light>
    <price>$9.37</price>
    <availability>030699</availability>
  </plant>
  <plant>
    <common>Marsh Marigold</common>
    <botanical>Caltha palustris</botanical>
    <zone>4</zone>
    <light>Mostly Sunny</light>
    <price>$6.81</price>
    <availability>051799</availability>
  </plant>
  <plant>
```

```
<common>Cowslip</common>
<botanical>Caltha palustris</botanical>
<zone>4</zone>
<light>Mostly Shady</light>
<price>$9.90</price>
<availability>030699</availability>
</plant>
<plant>
  <common>Dutchman's-Breeches</common>
  <botanical>Diecentra cucullaria</botanical>
  <zone>3</zone>
  <light>Mostly Shady</light>
  <price>$6.44</price>
  <availability>012099</availability>
</plant>
<plant>
  <common>Ginger, Wild</common>
  <botanical>Asarum canadense</botanical>
  <zone>3</zone>
  <light>Mostly Shady</light>
  <price>$9.03</price>
  <availability>041899</availability>
</plant>
<plant>
  <common>Hepatica</common>
  <botanical>Hepatica americana</botanical>
  <zone>4</zone>
  <light>Mostly Shady</light>
  <price>$4.45</price>
  <availability>012699</availability>
</plant>
<plant>
  <common>Liverleaf</common>
  <botanical>Hepatica americana</botanical>
  <zone>4</zone>
  <light>Mostly Shady</light>
  <price>$3.99</price>
  <availability>010299</availability>
</plant>
<plant>
```

```
<common>Jack-In-The-Pulpit</common>
<botanical>Arisaema triphyllum</botanical>
<zone>4</zone>
<light>Mostly Shady</light>
<price>$3.23</price>
<availability>020199</availability>
</plant>
<plant>
  <common>Mayapple</common>
  <botanical>Podophyllum peltatum</botanical>
  <zone>3</zone>
  <light>Mostly Shady</light>
  <price>$2.98</price>
  <availability>060599</availability>
</plant>
<plant>
  <common>Phlox, Woodland</common>
  <botanical>Phlox divaricata</botanical>
  <zone>3</zone>
  <light>Sun or Shade</light>
  <price>$2.80</price>
  <availability>012299</availability>
</plant>
<plant>
  <common>Phlox, Blue</common>
  <botanical>Phlox divaricata</botanical>
  <zone>3</zone>
  <light>Sun or Shade</light>
  <price>$5.59</price>
  <availability>021699</availability>
</plant>
<plant>
  <common>Spring-Beauty</common>
  <botanical>Claytonia Virginica</botanical>
  <zone>7</zone>
  <light>Mostly Shady</light>
  <price>$6.59</price>
  <availability>020199</availability>
</plant>
<plant>
```

```
<common>Trillium</common>
<botanical>Trillium grandiflorum</botanical>
<zone>5</zone>
<light>Sun or Shade</light>
<price>$3.90</price>
<availability>042999</availability>
</plant>
<plant>
  <common>Wake Robin</common>
  <botanical>Trillium grandiflorum</botanical>
  <zone>5</zone>
  <light>Sun or Shade</light>
  <price>$3.20</price>
  <availability>022199</availability>
</plant>
<plant>
  <common>Violet, Dog-Tooth</common>
  <botanical>Erythronium americanum</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$9.04</price>
  <availability>020199</availability>
</plant>
<plant>
  <common>Trout Lily</common>
  <botanical>Erythronium americanum</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$6.94</price>
  <availability>032499</availability>
</plant>
<plant>
  <common>Adder's-Tongue</common>
  <botanical>Erythronium americanum</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$9.58</price>
  <availability>041399</availability>
</plant>
<plant>
```

```
<common>Anemone</common>
<botanical>Anemone blanda</botanical>
<zone>6</zone>
<light>Mostly Shady</light>
<price>$8.86</price>
<availability>122698</availability>
</plant>
<plant>
  <common>Grecian Windflower</common>
  <botanical>Anemone blanda</botanical>
  <zone>6</zone>
  <light>Mostly Shady</light>
  <price>$9.16</price>
  <availability>071099</availability>
</plant>
<plant>
  <common>Bee Balm</common>
  <botanical>Monarda didyma</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$4.59</price>
  <availability>050399</availability>
</plant>
<plant>
  <common>Bergamont</common>
  <botanical>Monarda didyma</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$7.16</price>
  <availability>042799</availability>
</plant>
<plant>
  <common>Black-Eyed Susan</common>
  <botanical>Rudbeckia hirta</botanical>
  <zone>Annual</zone>
  <light>Sunny</light>
  <price>$9.80</price>
  <availability>061899</availability>
</plant>
<plant>
```

```
<common>Buttercup</common>
<botanical>Ranunculus</botanical>
<zone>4</zone>
<light>Shade</light>
<price>$2.57</price>
<availability>061099</availability>
</plant>
<plant>
  <common>Crowfoot</common>
  <botanical>Ranunculus</botanical>
  <zone>4</zone>
  <light>Shade</light>
  <price>$9.34</price>
  <availability>040399</availability>
</plant>
<plant>
  <common>Butterfly Weed</common>
  <botanical>Asclepias tuberosa</botanical>
  <zone>Annual</zone>
  <light>Sunny</light>
  <price>$2.78</price>
  <availability>063099</availability>
</plant>
<plant>
  <common>Cinquefoil</common>
  <botanical>Potentilla</botanical>
  <zone>Annual</zone>
  <light>Shade</light>
  <price>$7.06</price>
  <availability>052599</availability>
</plant>
<plant>
  <common>Primrose</common>
  <botanical>Oenothera</botanical>
  <zone>3 – 5</zone>
  <light>Sunny</light>
  <price>$6.56</price>
  <availability>013099</availability>
</plant>
<plant>
```

```
<common>Gentian</common>
<botanical>Gentiana</botanical>
<zone>4</zone>
<light>Sun or Shade</light>
<price>$7.81</price>
<availability>051899</availability>
</plant>
<plant>
  <common>Blue Gentian</common>
  <botanical>Gentiana</botanical>
  <zone>4</zone>
  <light>Sun or Shade</light>
  <price>$8.56</price>
  <availability>050299</availability>
</plant>
<plant>
  <common>Jacob's Ladder</common>
  <botanical>Polemonium caeruleum</botanical>
  <zone>Annual</zone>
  <light>Shade</light>
  <price>$9.26</price>
  <availability>022199</availability>
</plant>
<plant>
  <common>Greek Valerian</common>
  <botanical>Polemonium caeruleum</botanical>
  <zone>Annual</zone>
  <light>Shade</light>
  <price>$4.36</price>
  <availability>071499</availability>
</plant>
<plant>
  <common>California Poppy</common>
  <botanical>Eschscholzia californica</botanical>
  <zone>Annual</zone>
  <light>Sun</light>
  <price>$7.89</price>
  <availability>032799</availability>
</plant>
<plant>
```



```
<common>Shooting Star</common>
<botanical>Dodecatheon</botanical>
<zone>Annual</zone>
<light>Mostly Shady</light>
<price>$8.60</price>
<availability>051399</availability>
</plant>
<plant>
  <common>Snakeroot</common>
  <botanical>Cimicifuga</botanical>
  <zone>Annual</zone>
  <light>Shade</light>
  <price>$5.63</price>
  <availability>071199</availability>
</plant>
<plant>
  <common>Cardinal Flower</common>
  <botanical>Lobelia cardinalis</botanical>
  <zone>2</zone>
  <light>Shade</light>
  <price>$3.02</price>
  <availability>022299</availability>
</plant>
</catalog>
```

## 2. GENERA LOS XSL PARA OBTENER LAS SIGUIENTES SOLUCIONES:

### 2.1 Lista en formato tabla todas las plantas como en la imagen

Common	Botanical
Bloodroot	<i>Sanguinaria canadensis</i>
Columbine	<i>Aquilegia canadensis</i>
Marsh Marigold	<i>Caltha palustris</i>
Cowslip	<i>Caltha palustris</i>
Dutchman's-Breeches	<i>Diecentra cucullaria</i>
Ginger, Wild	<i>Asarum canadense</i>
Hepatica	<i>Hepatica americana</i>
Liverleaf	<i>Hepatica americana</i>
Jack-In-The-Pulpit	<i>Arisaema triphyllum</i>
Mayapple	<i>Podophyllum peltatum</i>
Phlox, Woodland	<i>Phlox divaricata</i>
Phlox, Blue	<i>Phlox divaricata</i>
Spring-Beauty	<i>Claytonia Virginica</i>
Trillium	<i>Trillium grandiflorum</i>
Wake Robin	<i>Trillium grandiflorum</i>
Violet, Dog-Tooth	<i>Erythronium americanum</i>
Trout Lily	<i>Erythronium americanum</i>
Adder's-Tongue	<i>Erythronium americanum</i>
Anemone	<i>Anemone blanda</i>
Grecian Windflower	<i>Anemone blanda</i>
Bee Balm	<i>Monarda didyma</i>
Bergamont	<i>Monarda didyma</i>
Black-Eyed Susan	<i>Rudbeckia hirta</i>
Buttercup	<i>Ranunculus</i>
Crowfoot	<i>Ranunculus</i>
Butterfly Weed	<i>Asclepias tuberosa</i>
Cinquefoil	<i>Potentilla</i>
Primrose	<i>Oenothera</i>
Gentian	<i>Gentiana</i>
Blue Gentian	<i>Gentiana</i>
Jacob's Ladder	<i>Polemonium caeruleum</i>
Greek Valerian	<i>Polemonium caeruleum</i>
California Poppy	<i>Eschscholzia californica</i>
Shooting Star	<i>Dodecatheon</i>
Snakeroot	<i>Cimicifuga</i>
Cardinal Flower	<i>Lobelia cardinalis</i>

## SOLUCIÓN

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">
  <xsl:output method="html" version="4.01" encoding="UTF-8"/>
  <xsl:template match="/">
    <html>
      <head>
        <link rel="stylesheet" href="css/estilo-plantas.css"/>
      </head>
      <body>
        <h1>My plants</h1>
        <table>
          <tr>
            <th>
Common
</th>
            <th>
Botanical
</th>
          </tr>
          <xsl:for-each select="catalog/plant">
            <tr>
              <td>
                <xsl:value-of select="common"/>
              </td>
              <td>
                <xsl:value-of select="botanical"/>
              </td>
            </tr>
          </xsl:for-each>
        </table>
      </body>
    </html>
```

```
</xsl:template>  
</xsl:stylesheet>
```

El archivo CSS asociado es:

```
table{  
  border: 1px double black;  
}  
  
th, td{  
  border: 1px double black;  
}  
  
tr th{  
  background-color: blue;  
  color:white;  
}
```

2.2 Genera el documento xsl para obtener, plantas con precio \$2.44

### My Plants

Common	Botanical
Black-Eyed Susan	Rudbeckia hirta
Butterfly Weed	Asclepias tuberosa
Primrose	Oenothera

### SOLUCIÓN

```
<?xml version="1.0" encoding="UTF-8"?>  
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">  
  <xsl:output method="html" version="4.01" encoding="UTF-8"/>  
  <xsl:template match="/">  
    <html>
```

```
<head>
<link rel="stylesheet" href="css/estilo-plantas.css"/>
</head>
<body>
<h1>My plants</h1>
<table>
  <tr>
    <th>
Common
</th>
    <th>
Botanical
</th>
  </tr>
  <xsl:for-each select="catalog/plant[price='$2.44']">
    <tr>
      <td>
        <xsl:value-of select="common"/>
      </td>
      <td>
        <xsl:value-of select="botanical"/>
      </td>
    </tr>
  </xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

## 2.3 Genera el documento xsl para obtener las plantas de la zona 4

### My Plants

Common	Botanical	Price	Zone
Bloodroot	Sanguinaria canadensis	\$2.44	4
Marsh Marigold	Caltha palustris	\$6.81	4
Cowslip	Caltha palustris	\$9.90	4
Hepatica	Hepatica americana	\$4.45	4
Liverleaf	Hepatica americana	\$3.99	4
Jack-In-The-Pulpit	Arisaema triphyllum	\$3.23	4
Violet, Dog-Tooth	Erythronium americanum	\$9.04	4
Trout Lily	Erythronium americanum	\$6.94	4
Adder's-Tongue	Erythronium americanum	\$9.58	4
Bee Balm	Monarda didyma	\$4.59	4
Bergamont	Monarda didyma	\$7.16	4
Buttercup	Ranunculus	\$2.57	4
Crowfoot	Ranunculus	\$9.34	4
Gentian	Gentiana	\$7.81	4
Blue Gentian	Gentiana	\$8.56	4

### SOLUCIÓN

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">
  <xsl:output method="html" version="4.01" encoding="UTF-8"/>
  <xsl:template match="/">
    <html>
      <head>
        <link rel="stylesheet" href="css/estilo-plantas.css"/>
      </head>
```

```
<body>
<h1>My plants</h1>
<table>
<tr>
<th>
Common
</th>
<th>
Botanical
</th>
</tr>
<xsl:for-each select="catalog/plant[zone='4']">
<tr>
<td>
<xsl:value-of select="common"/>
</td>
<td>
<xsl:value-of select="botanical"/>
</td>
</tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>
```

2.4 Genera el documento xsl para obtener las plantas que necesitan ligh de tipo Sunny.



## My Plants

Common	Botanical
Black-Eyed Susan	Rudbeckia hirta
Butterfly Weed	Asclepias tuberosa
Primrose	Oenothera

## SOLUCIÓN

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet xmlns:xsl="http://www.w3.org/1999/XSL/Transform" version="1.0">
  <xsl:output method="html" version="4.01" encoding="UTF-8"/>
  <xsl:template match="/">
    <html>
      <head>
        <link rel="stylesheet" href="css/estilo-plantas.css"/>
      </head>
      <body>
        <h1>My plants</h1>
        <table>
          <tr>
            <th>
              Common
            </th>
            <th>
              Botanical
            </th>
          </tr>
          <xsl:for-each select="catalog/plant[light='Sunny']">
            <tr>
              <td>
                <xsl:value-of select="common"/>
              </td>
            </tr>
          </xsl:for-each>
        </table>
      </body>
    </html>
  </template>
</xsl:stylesheet>
```

```

        <td>
            <xsl:value-of select="botanical"/>
        </td>
    </tr>
</xsl:for-each>
</table>
</body>
</html>
</xsl:template>
</xsl:stylesheet>

```

## 2.5 Genera el documento xsl para obtener las plantas que están en zonas superiores a la 2.

### My Plants

Common	Botanical	Zone
Bloodroot	Sanguinaria canadensis	4
Columbine	Aquilegia canadensis	3
Marsh Marigold	Caltha palustris	4
Cowslip	Caltha palustris	4
Dutchman's-Breeches	Diecentra cucullaria	3
Ginger, Wild	Asarum canadense	3
Hepatica	Hepatica americana	4
Liverleaf	Hepatica americana	4
Jack-In-The-Pulpit	Arisaema triphyllum	4
Mayapple	Podophyllum peltatum	3
Phlox, Woodland	Phlox divaricata	3
Phlox, Blue	Phlox divaricata	3
Spring-Beauty	Claytonia Virginica	7
Trillium	Trillium grandiflorum	5
Wake Robin	Trillium grandiflorum	5
Violet, Dog-Tooth	Erythronium americanum	4
Trout Lily	Erythronium americanum	4
Adder's-Tongue	Erythronium americanum	4
Anemone	Anemone blanda	6
Grecian Windflower	Anemone blanda	6
Bee Balm	Monarda didyma	4
Bergamont	Monarda didyma	4
Buttercup	Ranunculus	4
Crowfoot	Ranunculus	4
Gentian	Gentiana	4
Blue Gentian	Gentiana	4

### SOLUCIÓN

```
<?xml version="1.0" encoding="UTF-8"?>
```

```

<xsl:stylesheet
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
version="1.0">
  <xsl:output method="html" version="4.01" encoding="UTF-8"/>
  <xsl:template match="/">
    <html>
    <head>
    <link rel="stylesheet" href="css/estilo-plantas.css"/>
    </head>
    <body>
    <h1>My plants</h1>
    <table>
      <tr>
        <th>
Common
</th>
        <th>
Botanical
</th>
      </tr>
      <xsl:for-each select="catalog/plant[zone > 2]">
        <tr>
          <td>
            <xsl:value-of select="common"/>
          </td>
          <td>
            <xsl:value-of select="botanical"/>
          </td>
        </tr>
      </xsl:for-each>
    </table>
    </body>
    </html>
  </xsl:template>
</xsl:stylesheet>

```

