

Unidad 5. XPath

Hoja 1.- Ejercicio 1

Dado el siguientes datos XPath online real-time tester, evaluator and generator for XML & HTML (xpather.com) se pide realizar las siguientes consultas:

1. Título de las actividades

//titulo/text()

Context Node:

Reset

Check

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <actividades>
3   <actividad nivel="infantil">
4     <codigo>A01
5     </codigo>
6     <titulo>Al agua patos
7   </titulo>
8     <fecha_inicio>2017-01-15
9     </fecha_inicio>
10    <sesiones intensidad="suave">
11      <minutos_sesion>45
12    </minutos_sesion>
13    <sesiones_semana>3
14    </sesiones_semana>
15  </sesiones>
16 </actividad>
17 <actividad nivel="adultos">
18   <codigo>A02
19   </codigo>
20   <titulo>Spinning y agua
21 </titulo>
22   <fecha_inicio>2017-01-08
23   </fecha_inicio>
24   <sesiones intensidad="fuerte">
25     <minutos_sesion>45
26   </minutos_sesion>
27   <sesiones_semana>3
28   </sesiones_semana>
29 </sesiones>
30 </actividad>
31 <actividad nivel="adultos">
32   <codigo>A03
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

Found 6 results for expression '//titulo/text()'

Found node of type Text with value 'Al agua patos'

' at line 6

Found node of type Text with value 'Spinning y agua'

' at line 20

Found node of type Text with value 'Spinning en el agua'

' at line 34

Found node of type Text with value 'Socorrismo'

' at line 48

Found node of type Text with value 'Perfeccionamiento en el agua'

' at line 62

Found node of type Text with value 'Aprender a nadar'

' at line 76

The expression '//titulo/text()' took 0.002 seconds to evaluate

2. Mostrar el código de la actividad, título y nivel.

```
XPath Query: //codigo/text() | //titulo/text() | //@nivel
```

```
[Line 3] nivel: infantil
```

```
[Line 4] null: A01
```

```
[Line 6] null: Al agua patos
```

```
[Line 17] nivel: adultos
```

```
[Line 18] null: A02
```

```
[Line 20] null: Spinning y agua
```

```
[Line 31] nivel: adultos
```

```
[Line 32] null: A03
```

```
[Line 34] null: Spinning en el agua
```

```
[Line 45] nivel: infantil
```

```
[Line 46] null: A04
```

```
[Line 48] null: Socorrismo
```

```
[Line 59] nivel: infantil
```

```
[Line 60] null: A05
```

```
[Line 62] null: Perfeccionamiento en el agua
```

```
[Line 73] nivel: adultos
```

```
[Line 74] null: A06
```

```
[Line 76] null: Aprender a nadar
```

3. El primer título de la actividad.

```
Found 1 results for expression '//actividad[1]/titulo/text()'
```

```
Found node of type Text with value 'Al agua patos
```

```
  ' at line 6
```

```
The expression '//actividad[1]/titulo/text()' took 0.001 seconds to evaluate
```

4. El último título de la actividad.

```
Found 1 results for expression '//actividad[last()]/titulo/text()'
```

```
Found node of type Text with value 'Aprender a nadar
```

```
  ' at line 76
```

```
The expression '//actividad[last()]/titulo/text()' took 0.001 seconds to evaluate
```

5. Todos los elementos descendientes de las actividades infantiles

```
Found 18 results for expression '//actividad[@nivel="infantil"]/*/text()'
Found node of type Text with value 'A01
    ' at line 4
Found node of type Text with value 'Al agua patos
    ' at line 6
Found node of type Text with value '2017-01-15
    ' at line 8
Found node of type Text with value '
    ' at line 10
Found node of type Text with value '
    ' at line 12
Found node of type Text with value '
    ' at line 14
Found node of type Text with value 'A04
    ' at line 46
Found node of type Text with value 'Socorrismo
    ' at line 48
Found node of type Text with value '2017-02-15
    ' at line 50
Found node of type Text with value '
    ' at line 52
Found node of type Text with value '
    ' at line 54
Found node of type Text with value '
    ' at line 56
Found node of type Text with value 'A05
    ' at line 60
```

6. El nombre de las actividades para adultos.

```
Found 3 results for expression '//actividad[@nivel="adultos"]/titulo/text()'
Found node of type Text with value 'Spinning y agua
    ' at line 20
Found node of type Text with value 'Spinning en el agua
    ' at line 34
Found node of type Text with value 'Aprender a nadar
    ' at line 76
The expression '//actividad[@nivel="adultos"]/titulo/text()' took 0.002 seconds
to evaluate
```

7. El nombre de las actividades con dos sesiones semanales

```
Found 4 results for expression '//sesiones[sesiones_semana=2]/../titulo/text()'
Found node of type Text with value 'Spinning en el agua
  ' at line 34
Found node of type Text with value 'Socorrismo
  ' at line 48
Found node of type Text with value 'Perfeccionamiento en el agua
  ' at line 62
Found node of type Text with value 'Aprender a nadar
  ' at line 76
The expression '//sesiones[sesiones_semana=2]/../titulo/text()' took 0.001
seconds to evaluate
```

8. Número de actividades

```
The expression 'count(//actividad)' resulted in: 6
```

9. Si queremos convertir el resultado a cadena de caracteres, podemos usar la función string().

```
The expression 'string(count(//actividad))' resulted in: 6
```

10. Cuenta del número de actividades infantiles.

```
The expression 'count(//actividad[@nivel="infantil"])' resulted in: 3
```

11. Suma de las sesiones semanales de las actividades para adultos.

```
The expression 'sum(//sesiones_semana[../../@nivel="adultos"])' resulted in: 7
```

12. Nodos de la actividad de código A06.

```
Found 9 results for expression '//actividad[codigo="A06"]/node()'
Found node of type Text with value '
  ' at line 73
Found node of type Element with name 'codigo' at line 74
Found node of type Text with value '
  ' at line 74
Found node of type Element with name 'titulo' at line 75
Found node of type Text with value '
  ' at line 76
Found node of type Element with name 'fecha_inicio' at line 77
Found node of type Text with value '
  ' at line 78
Found node of type Element with name 'sesiones' at line 79
Found node of type Text with value '
  ' at line 84
The expression '//actividad[codigo="A06"]/node()' took 0.004 seconds to evaluate
```

13. Duración de las actividades con intensidad fuerte

```
The expression 'sum(//sesiones[@intensidad="fuerte"]/minutos_sesion)' resulted in: 45
```

14. Mostrar el código de las actividades cuya duración coincide con la duración del 1ª actividad.

```
Found 4 results for expression '//actividad[sesiones/minutos_sesion="//actividad[1]/sesiones/minutos_sesion/text()
]/codigo/text()'
Found node of type Text with value 'A01' at line 4
Found node of type Text with value 'A02' at line 13
Found node of type Text with value 'A04' at line 31
Found node of type Text with value 'A05' at line 40
The expression '//actividad[sesiones/minutos_sesion="//actividad[1]/sesiones/minutos_sesion/text()]/codigo/text()'
' took 0.008 seconds to evaluate
```

15. Título de las actividades del año 2018.

```
Found 1 results for expression '//actividad[substring(fecha_inicio,1,4)
="2018"]/titulo/text()'
Found node of type Text with value 'Spinning y agua' at line 14
The expression '//actividad[substring(fecha_inicio,1,4)="2018"]/titulo/text
()' took 0.002 seconds to evaluate
```