

BASEX RAQUETAS

PÉREZ SELLERS, ALEJANDRO
LENGUAJE DE MARCAS 1º de daw

Ahora que ya sabes usar BaseX, crea diferentes bases de datos de los ejercicios de la unidad anterior, concretamente, el de las raquetas.

Ejecuta sentencias Xpath y muestra los resultados en formato árbol, mapa, etc.

Indica bien las sentencias xpath.

Para hacer las entregas, utiliza PDF.

1. Mostrar todas las raquetas //RAQUETA

The screenshot shows the BaseX 11.8 interface. The XPath query `//RAQUETA` is entered in the Editor. The Results pane displays 5 results in a table format. The table has columns for MARCA, MODELO, ANIO, and PRECIO. The results are as follows:

MARCA	MODELO	ANIO	PRECIO
BABOLAT	PURE DRIVE	2012	170
YONEX	MP TOUR 5	2000	95
WILSON	HAWPER	1997	215
BABOLAT	PURE STORM	2013	190
WILSON	PRO STAFF	1997	215

The Info pane shows the XML tree structure of the document, highlighting the RAQUETA elements. The Result pane shows the XPath query and its results in a tree format.

2. Mostrar las marcas de las raquetas. //MARCA

The screenshot shows the BaseX 11.8 interface. The XPath query `//MARCA` is entered in the Editor. The Results pane displays 5 results in a table format. The table has columns for MARCA, MODELO, ANIO, and PRECIO. The results are as follows:

MARCA	MODELO	ANIO	PRECIO
BABOLAT	PURE DRIVE	2012	170
YONEX	MP TOUR 5	2000	95
WILSON	HAWPER	1997	215
BABOLAT	PURE STORM	2013	190
WILSON	PRO STAFF	1997	215

The Info pane shows the XML tree structure of the document, highlighting the MARCA elements. The Result pane shows the XPath query and its results in a tree format.

3. Mostrar raquetas de la marca WILSON //RAQUETA[MARCA='WILSON']

The screenshot shows the BaseX 11.8 interface. The query editor contains the XQuery: `//RAQUETA[MARCA='WILSON']`. The results pane shows 2 results. The XML tree view on the right shows the structure of the 'raquetas.xml' file, with the query results highlighted in red.

Query: `//RAQUETA[MARCA='WILSON']`

Results: 2 Results, 260 b

Result:

```
<RAQUETA>
  <MARCA>WILSON</MARCA>
  <MODELO>HAMMER</MODELO>
  <ANIO>2000</ANIO>
  <PRECIO>95</PRECIO>
</RAQUETA>
<RAQUETA>
  <MARCA>WILSON</MARCA>
  <MODELO>PRO STAFF</MODELO>
  <ANIO>1997</ANIO>
  <PRECIO>215</PRECIO>
</RAQUETA>
```

Optimized Query: `db:text("raquetas", "WILSON")/parent:MARCA/parent:RAQUETA`

Optimizing:

- rewrite context value: `db:get-pre("raquetas", 0)`
- rewrite util:root(nodes): `util:root(db:get-pre("raquetas", 0)) -> db:get-pre("raquetas", 0)`
- apply text index for "WILSON"

Compiling:

- memo: descendant:RAQUETA/MARCA="WILSON"

4. Mostrar modelos de raquetas posteriores al año 2000. //RAQUETA[ANIO > 2000]/MODELO

The screenshot shows the BaseX 11.8 interface. The query editor contains the XQuery: `//RAQUETA[ANIO > 2000]/MODELO`. The results pane shows 2 results. The XML tree view on the right shows the structure of the 'raquetas.xml' file, with the query results highlighted in red.

Query: `//RAQUETA[ANIO > 2000]/MODELO`

Results: 2 Results, 56 b

Result:

```
<MODELO>PURE DRIVE</MODELO>
<MODELO>PURE STORM</MODELO>
```

Optimized Query: `db:get-pre("raquetas", 0)/TIENDA/RAQUETA[ANIO >= 2000.00000000000002]/MODELO`

Optimizing:

- rewrite context value: `db:get-pre("raquetas", 0)`
- rewrite util:root(nodes): `util:root(db:get-pre("raquetas", 0)) -> db:get-pre("raquetas", 0)`
- convert to child steps: descendant:RAQUETA[ANIO >= 2000.00000000000002]

5. Mostrar raquetas con precio mayor a 180. //RAQUETA[PRECIO > 180]

The screenshot shows the BaseX 11.8 interface. The Editor pane contains the XPath query: `//RAQUETA[PRECIO > 180]`. The Results pane shows 2 results, 266 b. The Info pane displays the optimized query and its execution details.

Result:

```
<RAQUETA>
  <MARCA>BABOLAT</MARCA>
  <MODELO>PURE STORM</MODELO>
  <ANIO>2013</ANIO>
  <PRECIO>190</PRECIO>
</RAQUETA>
<RAQUETA>
  <MARCA>WILSON</MARCA>
  <MODELO>PRO STAFF</MODELO>
  <ANIO>1997</ANIO>
  <PRECIO>215</PRECIO>
</RAQUETA>
```

Optimized Query:

```
db:get-pre("raquetas", 0)/*:TIENDA/*:RAQUETA[PRECIO >= 180.00000000000003]
```

Optimizing:

- rewrite context value: -> db:get-pre("raquetas", 0)
- rewrite util:root(nodes): util:root(db:get-pre("raquetas", 0)) -> db:get-pre("raquetas", 0)
- convert to child steps: descendant:RAQUETA[PRECIO >= 180.00000000000003]

The XML tree view on the right shows the structure of the raquetas.xml file, with the selected nodes highlighted in red.

6. Mostrar solo los modelos de raquetas mas antiguas. //RAQUETA[ANIO < 2000]/MODELO

The screenshot shows the BaseX 11.8 interface. The Editor pane contains the XPath query: `//RAQUETA[ANIO < 2000]/MODELO`. The Results pane shows 2 results, 53 b. The Info pane displays the optimized query and its execution details.

Result:

```
<MODELO>MPTOUR 5</MODELO>
<MODELO>PRO STAFF</MODELO>
```

Optimized Query:

```
db:get-pre("raquetas", 0)/*:TIENDA/*:RAQUETA[ANIO <= 1999.99999999999998]/MODELO
```

Optimizing:

- rewrite context value: -> db:get-pre("raquetas", 0)
- rewrite util:root(nodes): util:root(db:get-pre("raquetas", 0)) -> db:get-pre("raquetas", 0)
- convert to child steps: descendant:RAQUETA[ANIO <= 1999.99999999999998]

The XML tree view on the right shows the structure of the raquetas.xml file, with the selected nodes highlighted in red.

7. Mapa de precios por modelo. for \$r in //RAQUETA

return map { data(\$r/MODELO) : xs:decimal(\$r/PRECIO) }

The screenshot shows the BaseX 11.8 interface with the following components:

- Editor:** Contains the XQuery:


```
1 for $r in //RAQUETA
2 return map { data($r/MODELO) : xs:decimal($r/PRECIO) }
```
- Results:** Displays 5 results:


```
{ "PURE DRIVE": 170 }
{ "PURE STORM": 190 }
{ "MPTOUR 5": 150 }
{ "HAMMER": 95 }
{ "PRO STAFF": 215 }
```
- Info:** Shows the optimized query:


```
db:get-pre("raquetas", 0)/*TIENDA/*RAQUETA | map:entry(
MODELO, xs:decimal(PRECIO))
```
- XML Tree:** Visualizes the XML structure of the 'raquetas.xml' file, showing a root node 'TIENDA' with multiple 'RAQUETA' children, each containing 'MODELO' and 'PRECIO' elements.