Base de données avancées - *XPath*

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Liste des exercices

1 Les flux de syndication

1.1 Exercice 1

les chemins XPath permettant d'accéder au titre général d'un flux de syndication :
RSS Version 2.0 : xpath rss.xml "/rss/channel/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "/rss/channel/title/text()"
Found 1 nodes:
-- NODE --
Mon site
```

RSS Version 1.0 : xpath rssV1.xml "/rdf :RDF/channel/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "/rdf:RDF/channel/title/text()"
Found 1 nodes:
-- NODE --
XML.com
```

RSS Version 0.9 : xpath rssV09.xml "/rdf :RDF/channel/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "/rdf:RDF/channel/title/text()"
Found 1 nodes:
-- NODE --
Mozilla Dot Org
```

Atom : xpath feed.xml "/feed/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath feed.xml "/feed/title/text()"
Found 1 nodes:
-- NODE --
Fil d'exemple
```

1.2 Exercice 2

les chemins XPath permettant d'accéder aux titres des entrées d'un flux de syndication :

RSS Version 2.0 : xpath rss.xml "/rss/channel/item/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "/rss/channel/item/title/text()"
Found 2 nodes:
-- NODE --
Actualit? N?1-- NODE --
Actualit? N?2
```

RSS Version 1.0 : xpath rssV1.xml "/rdf :RDF/item/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "/rdf:RDF/item/title/text()"
Found 2 nodes:
-- NODE --
Processing Inclusions with XSLT-- NODE --
Putting RDF to Work
```

RSS Version 0.9 : xpath rssV09.xml "/rdf :RDF/item/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "/rdf:RDF/item/title/text()"
Found 5 nodes:
-- NODE --
New Status Updates-- NODE --
Bugzilla Reorganized-- NODE --
Mozilla Party, 2.0!-- NODE --
Unix Platform Parity-- NODE --
NPL 1.0M published
```

Atom : xpath feed.xml "/feed/entry/title/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath feed.xml "/feed/entry/title/text()"
Found 1 nodes:
-- NODE --
Des robots propuls?s par Atom deviennent fous
```

1.3 Exercice 3

les chemins XPath permettant d'accéder au lien alternatif général d'un flux de syndication :

RSS Version 2.0 : xpath rss.xml "/rss/channel/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "/rss/channel/link/text()"
Found 1 nodes:
-- NODE --
http://www.example.org
```

RSS Version 1.0 : xpath rssV1.xml "/rdf :RDF/channel/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "/rdf:RDF/channel/link/text()"
Found 1 nodes:
-- NODE --
http://xml.com/pub
```

RSS Version 0.9 : xpath rssV09.xml "/rdf :RDF/channel/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "/rdf:RDF/channel/link/text()"
Found 1 nodes:
-- NODE --
http://www.mozilla.org
```

Atom : xpath feed.xml /feed/link/@href

```
[eduroam08591:TP_XPath Mohammed$ xpath feed.xml /feed/link/@href
Found 1 nodes:
-- NODE --
 href="http://example.org/"
```

1.4   Exercice 4

les chemins XPath permettant d'accéder aux liens alternatifs des entrées d'unflux de syndication :

RSS Version 2.0 : xpath rss.xml "/rss/channel/item/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "/rss/channel/item/link/text()"
Found 2 nodes:
-- NODE --
http://www.example.org/actu1-- NODE --
http://www.example.org/actu2
```

RSS Version 1.0 : xpath rssV1.xml "/rdf :RDF/item/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "/rdf:RDF/item/link/text()"
Found 2 nodes:
-- NODE --
http://xml.com/pub/2000/08/09/xslt/xslt.html-- NODE --
http://xml.com/pub/2000/08/09/rdfdb/index.html
```

RSS Version 0.9 : xpath rssV09.xml "/rdf :RDF/item/link/text()"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "/rdf:RDF/item/link/text()"
Found 5 nodes:
-- NODE --
http://www.mozilla.org/status/-- NODE --
http://www.mozilla.org/bugs/-- NODE --
http://www.mozilla.org/party/1999/-- NODE --
http://www.mozilla.org/build/unix.html-- NODE --
http://www.mozilla.org/NPL/NPL-1.0M.html
```

Atom : xpath feed.xml "/feed/entry/link/@href"

```
[eduroam08591:TP_XPath Mohammed$ xpath feed.xml "/feed/entry/link/@href"
Found 1 nodes:
-- NODE --
 href="http://example.org/2003/12/13/atom03"
```

1.5   Exercice 5

les chemins XPath permettant d'accéder aux entrées écrites par un auteur :
=>Après des changements sur les fichier .xml rss et atom voilà le résultats ci-dessus :

RSS Version 2.0 : xpath rss.xml "/rss/channel/item[count(author)>0]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "/rss/channel/item[count(author)>0]"
Found 2 nodes:
-- NODE --
<item>
            <author>Premier author</author>
            <title>Actualit? N?1</title>
            <description>Ceci est ma premi?re actualit?</description>
            <pubDate>Sat, 07 Sep 2002 00:00:01 GMT</pubDate>
            <link>http://www.example.org/actu1</link>
        </item>-- NODE --
<item>
            <author>Deuxi?me author</author>
            <title>Actualit? N?2</title>
            <description>Ceci est ma seconde actualit?</description>
            <pubDate>Sat, 07 Sep 2002 00:00:01 GMT</pubDate>
            <link>http://www.example.org/actu2</link>
        </item>
```

RSS Version 1.0 : xpath rssV1.xml "/rdf :RDF/item[count(author)>0]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "/rdf:RDF/item[count(author)>0]"
Found 2 nodes:
-- NODE --
<item rdf:about="http://xml.com/pub/2000/08/09/xslt/xslt.html">
    <author>Premier author</author>
    <title>Processing Inclusions with XSLT</title>
    <link>http://xml.com/pub/2000/08/09/xslt/xslt.html</link>
    <description>
     Processing document inclusions with general XML tools can be
     problematic. This article proposes a way of preserving inclusion
     information through SAX-based processing.
    </description>
    <pubDate>Sat, 07 dec 2017 00:00:01 GMT</pubDate>
  </item>-- NODE --
<item rdf:about="http://xml.com/pub/2000/08/09/rdfdb/index.html">
    <author>Deuxi?me author</author>
    <title>Putting RDF to Work</title>
    <link>http://xml.com/pub/2000/08/09/rdfdb/index.html</link>
    <description>
     Tool and API support for the Resource Description Framework
     is slowly coming of age. Edd Dumbill takes a look at RDFDB,
     one of the most exciting new RDF toolkits.
    </description>
    <pubDate>Sat, 07 dec 20017 00:00:01 GMT</pubDate>
  </item>
```

RSS Version 0.9 : xpath rssV09.xml "/rdf :RDF/item[count(author)>0]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "/rdf:RDF/item[count(author)>0]"
 Found 5 nodes:
-- NODE --
<item>
    <author>Premier author</author>
    <title>New Status Updates</title>
    <link>http://www.mozilla.org/status/</link>
  </item>-- NODE --
<item>
    <author>Deuxi?me author</author>
    <title>Bugzilla Reorganized</title>
    <link>http://www.mozilla.org/bugs/</link>
  </item>-- NODE --
<item>
    <author>Troixi?me author</author>
    <title>Mozilla Party, 2.0!</title>
    <link>http://www.mozilla.org/party/1999/</link>
  </item>-- NODE --
<item>
    <author>Quatri?me author</author>
    <title>Unix Platform Parity</title>
    <link>http://www.mozilla.org/build/unix.html</link>
  </item>-- NODE --
<item>
    <author>Cinqui?me author</author>
    <title>NPL 1.0M published</title>
    <link>http://www.mozilla.org/NPL/NPL-1.0M.html</link>
  </item>
```

Atom : xpath feed.xml "/feed/entry[count(author)>0]"

```
[eduroam08591:TP_XPath Mohammed$ xpath feed.xml "/feed/entry[count(author)>0]"
 Found 1 nodes:
-- NODE --
<entry>
 <author>Premier author</author>
   <title>Des robots propuls?s par Atom deviennent fous</title>
   <link href="http://example.org/2003/12/13/atom03" />
   <id>urn:uuid:1225c695-cfb8-4ebb-aaaa-80da344efa6a</id>
   <updated>2010-04-01T18:30:02Z</updated>
   <summary>Poisson d'avril !</summary>
 </entry>
```

1.6 Exercice 6

les chemins XPath permettant d'accéder aux entrées publiées durant le mois de novembre :

RSS Version 2.0 : xpath rss.xml "//rss/channel/item[pubDate[contains(.,'nov')]]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rss.xml "//rss/channel/item[pubDate[contains(.,'nov
')]]"
No nodes found
```

RSS Version 1.0 : xpath rssV1.xml "//rdf :RDF/item[pubDate[contains(.,'nov')]]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV1.xml "//rdf:RDF/item[pubDate[contains(.,'nov
')]]"
No nodes found
```

RSS Version 0.9 : xpath rssV09.xml "//rdf :RDF/item[pubDate[contains(.,'nov')]]"

```
[eduroam08591:TP_XPath Mohammed$ xpath rssV09.xml "//rdf:RDF/item[pubDate[contains(.,'nov')]
]]"
Found 1 nodes:
-- NODE --
<item>
    <author>Troixi?me author</author>
    <title>Mozilla Party, 2.0!</title>
    <link>http://www.mozilla.org/party/1999/</link>
    <pubDate>Sat, 07 nov 2017 00:00:01 GMT</pubDate>

  </item>
```

Atom : xpath feed.xml "//feed/entry[updated[contains(.,'-11-')]]"

```
eduroam08591:TP_XPath Mohammed$ xpath feed.xml "//feed/entry[updated[contains(.,'-11-')]]"
No nodes found
```

*Note :*il s'affichera rien parce qu'il n'y a pas de mois de novembre dans les fichiers
.xml

2 Schémas de bases de données

2.1 Exercice 7

le chemin XPath permettant d'accéder au nom de la base de données

Database : xpath DB.xml "/database/@name"

```
[eduroam08591:TP_XPath Mohammed$ xpath DB.xml "/database/@name"
Found 1 nodes:
-- NODE --
 name="testdb"
```

2.2 Exercice 8

le chemin XPath permettant d'accéder aux noms des tables :

Database : xpath DB.xml //table/@name

```
[MacBook-Pro-de-Mohammed:TP_XPath Mohammed$ xpath DB.xml //table/@name
Found 2 nodes:
-- NODE --
 name="author"-- NODE --
 name="book"
```

2.3 Exercice 9

le chemin XPath permettant d'accéder aux noms des tables ayant une clé
primaire :

Database : xpath DB.xml //database/table[column/@primaryKey]/@name

```
[MacBook-Pro-de-Mohammed:TP_XPath Mohammed$ xpath DB.xml //database/table[column/@primary]
Key]/@name
Found 2 nodes:
-- NODE --
 name="author"-- NODE --
 name="book"
```

2.4 Exercice 10

le chemin XPath permettant d'accéder aux noms des tables ayant plusieurs
index :

Database : xpath DB.xml "//database/table[count(index)>1]/@name"

```
[eduroam08591:TP_XPath Mohammed$ xpath DB.xml "//database/table[count(index)>1]/@name"
No nodes found
```

*Note :*retourn vide par ce que y a pas de table avec plus de un index dans le
fichier .xml

2.5   Exercice 11

le chemin XPath permettant d'accéder aux noms des tables ayant un index
multi-colonnes :
Database : xpath DB.xml "//database/table[count(index/index-column)>1]/@name"
```
[eduroam08591:TP_XPath Mohammed$ xpath DB.xml "//database/table[count(index/index-column)>1]
]/@name"
No nodes found
```

*Note :*il n'y a pas d'index multi-colonne dans le fichier .xml

2.6   Exercice 12

le chemin XPath permettant d'accéder aux noms des tables ayant une clé
étrangère sur une table inexistant :
Database :
xpath DB.xml "//database/table[foreign-key/@foreignTable=//database/table/@name]/@name"
```
[eduroam08591:TP_XPath Mohammed$ xpath DB.xml "//database/table[foreign-key/@foreignTable=/]
/database/table/@name]/@name"
Found 1 nodes:
-- NODE --
 name="book"
```

2.7   Exercice 13

le chemin XPath permettant d'accéder aux noms des tables ayant une clé
étrangère sur une table inexistante :
Database : xpath DB.xml "//database/table[/foreign-key/@foreignTable !=//-
database/table/@name]/@name"