

UVOD V XML PODATKOVNE BAZE

PRIMERI POIZVEDB V ORACLE XML DB

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IŠRM

P1: FLOWR izraz

XQuery

```
SELECT XMLQuery('for $e in doc("/public/zaposlenci.xml")/zaposlenci/zaposleni
  let $d := doc("/public/oddelki.xml")//oddelek[@oid = $e/@oid]/@naziv
  where $e/@placa > 2500
  order by $e/@id
  return <zaposleni ime="{ $e/@ime}" oddelek="{ $d}"/>'
RETURNING CONTENT) FROM DUAL;
```

SQL

```
SELECT z.ime, o.naziv
FROM zaposlenci z NATURAL JOIN oddelki o
WHERE z.placa > 2500
ORDER BY z.placa;
```

*Relacijska shema ustreza shemi ZAPOSLENCI, skripta za lab. vaje dodatek A.3/str. 40.

P2: FLOWR izraz in vgrajene funkcije

XQuery

```
SELECT XMLQuery('for $d in fn:doc("/public/oddelki.xml")/oddelki/oddelek/@oid
  let $e := fn:doc("/public/zaposlenci.xml")/zaposlenci/zaposleni[@oid = $d]
  where fn:count($e) > 1
  order by fn:avg($e/@placa) descending
  return
    <vel-oddelek>{$d,
      <noz>{fn:count($e)}</noz>,
      <avgplaca>{xs:integer(fn:avg($e/@placa))}</avgplaca>}
    </vel-oddelek>')
RETURNING CONTENT) FROM DUAL;
```

SQL

```
SELECT o.oid, COUNT(z.id), AVG(z.placa)
FROM zaposlenci z NATURAL JOIN oddecki o
GROUP BY o.oid
HAVING COUNT(z.id) > 1
ORDER BY 3 DESC;
```

*Relacijska shema ustreza shemi ZAPOSLENCI, skripta za lab. vaje dodatek A.3/str. 40.

P3: FLOWR izraz in vgrajene funkcije

XQuery

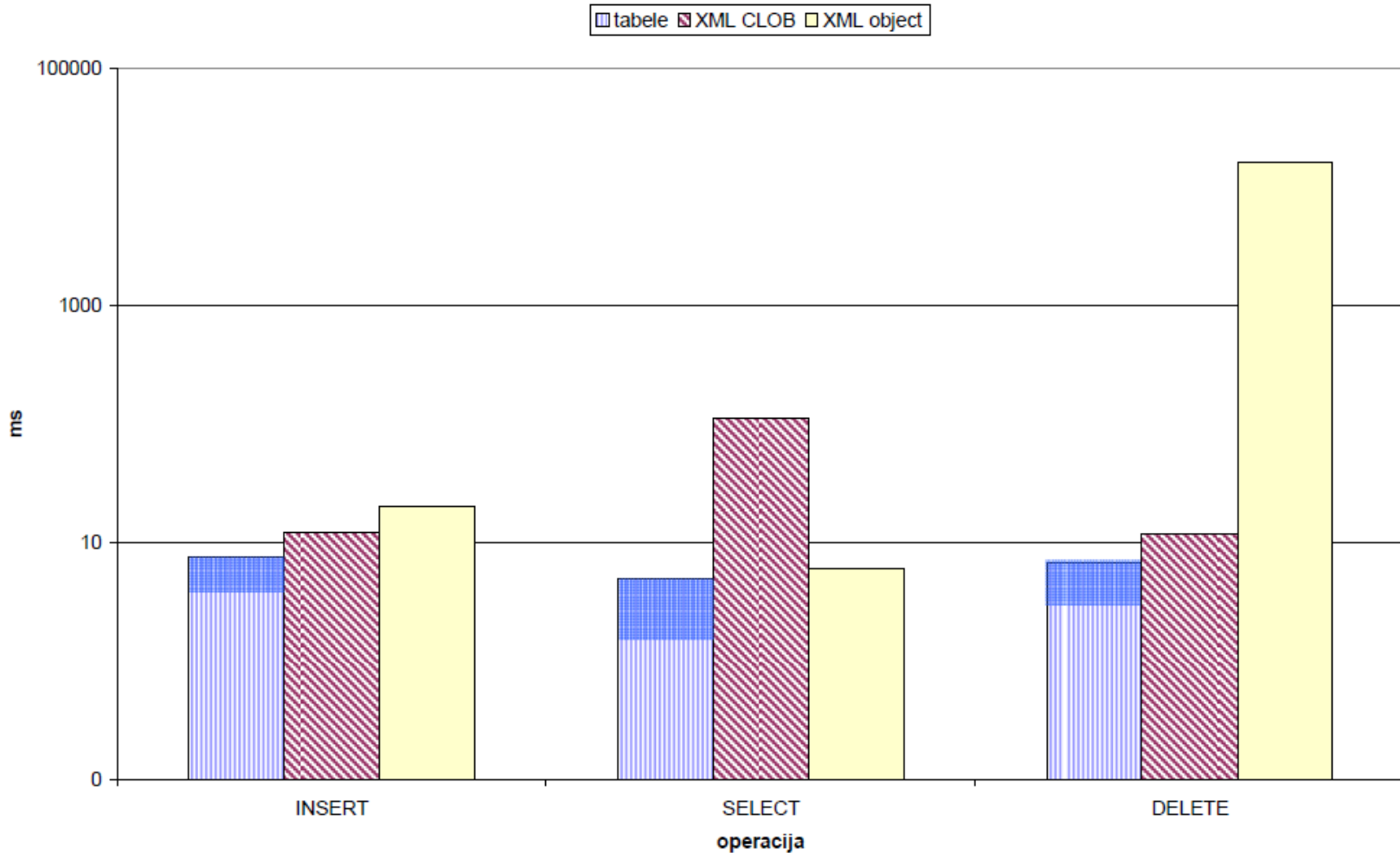
```
SELECT XMLQuery('for $d in fn:doc("/public/oddelki2.xml")/oddelki/oddelek
  let $e := fn:doc("/public/zaposlenci2.xml")/zaposlenci/zaposleni[@oid =
    $d/@oid and fn:year-from-date(@datum_zaposlitve) >=2010]
  where fn:not(fn:exists($e))
  return $d'
  RETURNING CONTENT) FROM DUAL;
```

SQL

```
SELECT o.oid, o.naziv
  FROM oddelki o
 WHERE NOT EXISTS (SELECT z.id
                   FROM zaposlenci z
                   WHERE z.oid=o.oid AND
                        z1.datum_zaposlitve > '01.01.2010');
```

*Relacijska shema ustreza shemi ZAPOSLENCI, skripta za lab. vaje dodatek A.3/str. 40.

Zmogljivost različnih pristopov k shranjevanju podatkov

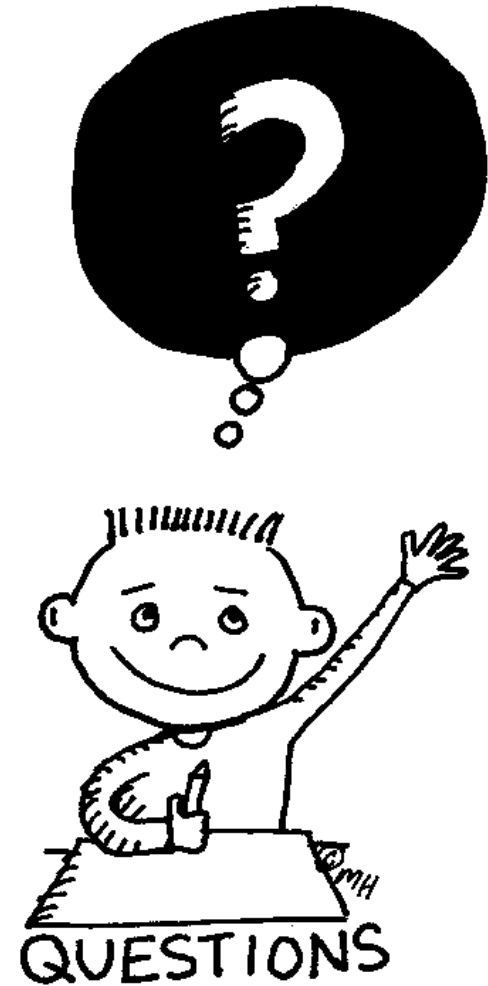


Vir: Marko Bevc. Primerjava pristopov k shranjevanju in obdelavi.

LITERATURA

- ❑ Rok Leskovar (2009). Uporaba XML v bazi podatkov IBM DB2. UNI MB.
- ❑ Marko Bevc (2009). Primerjava pristopov k shranjevanju in obdelavi XML dokumentov v PB Oracle. UNI MB.
- ❑ Raghu Ramakrishnan, Johannes Gerke (2003). Database Management Systems. Third Edition. McGraw Hill, p. 227-235, 945-960.
- ❑ Oracle Technology Network (2009). Introduction to Oracle Berkeley XML DB, Release 2.5.
- ❑ Oracle Database 11g Release 2 XML DB New Features (2009). Oracle White Paper.
- ❑ Oracle XML DB: Best Practices to Get Optimal Performance Out of XML Query (2009). Oracle White Paper.
- ❑ XQuery 1.0: An XML Query Language. <http://www.w3.org/TR/xquery>, 30.11.2010.
- ❑ W3C XML Query (XQuery). <http://www.w3.org/XML/Query>, 30.11.2010.
- ❑ Kimbro Staken. Introduction to Native XML Databases. <http://www.xml.com/pub/a/2001/10/31/nativexmlldb.html>, 30.11.2010.
- ❑ Boštjan Šumak, Luka Pavlič, Maja Pušnik. Podpora tehnologijam XML v PB Oracle. <http://164.8.251.136:8080/lp/pages/sl/publics/sioug05/SIOUG2005.pdf>, 30.11.2010.

Hvala za pozornost.



*Op.: Predstavitev objavljena na <http://www.helikoid.si>.
Objavljeni tudi primeri poizvedb v Oracle Berkeley XML DB.