

## Ćw. 1. Publikacja XML

```
CREATE TABLE
    kompozycje (
        idkompozycji CHAR(5) NOT NULL,
        nazwa VARCHAR(40) NOT NULL,
        opis VARCHAR(100),
        cena NUMERIC(7, 2),
        minimum INTEGER,
        stan INTEGER
    );
```

```
SELECT
    xmlelement (
        name flowers,
        xmlagg (
            xmlelement (
                name bouquet,
                xmlattributes (idkompozycji as id, stan as quant, cena as price),
                xmlelement (name name, nazwa),
                xmlelement (name description, opis)
            )
        )
    )
FROM
    kompozycje
WHERE
    stan > 4;
```

## Ćw. 3. Przetwarzanie XML

```
#!/bin/bash
```

```
for i in *.xml
do
    XML_CONTENT=$(cat "$i" | sed "s/'/'/g")

    echo "INSERT INTO printers (name, description) VALUES ('$i', '$XML_CONTENT');"
done
```

```
chmod +x ./script.sh && ./script.sh >> printers.sql && psql -U postgres -a -f printers.sql
```

```
SELECT
    name,
    (xpath('//printer/mechanism/resolution/dpi/x/text()', description))[1] as
resolution
FROM printers;
```

```
SELECT
    name,
    (xpath('//printer/mechanism/resolution/dpi/x/text()', description))[1] as
resolution
FROM printers
ORDER BY (xpath('//printer/mechanism/resolution/dpi/x/text()',
description))[1]::text ASC;
```

```
SELECT
    name,
    (xpath('//printer/mechanism/resolution/dpi/x/text()', description))[1] as
resolution
FROM printers
ORDER BY CAST((xpath('//printer/mechanism/resolution/dpi/x/text()',
description))[1]::text AS INTEGER) ASC;
```

```
SELECT
    name
FROM printers
WHERE
    xpath_exists('//printer/mechanism/color', description)
    AND
    CAST((xpath('//printer/mechanism/resolution/dpi/x/text()',
description))[1]::text AS INTEGER) > 1200;
```