

Sedna Quick Start*

Sedna packages come with an example that allows you to investigate the features of Sedna easily. Section 1 describes how to run the example. Section 2 gives a brief overview of the example.

1 How to run the example

Before running the example you should install Sedna. See `README` in your Sedna package for the instructions. In the remainder of this guide `INSTALL_DIR` refers to the directory where Sedna is installed. The example is located in the directory:

```
[win:] INSTALL_DIR\examples\databases\auction
[linux:] INSTALL_DIR/examples/databases/auction
```

To run the example, type the following commands in the command prompt:

1. Change the current directory to the directory where the example is located by typing in a command line:

```
[win:] cd INSTALL_DIR\examples\databases\auction
[linux:] cd INSTALL_DIR/examples/databases/auction
```

2. Start Sedna by running the following command:

```
se_gov
```

If Sedna is started successfully it prints "GOVERNOR has been started in the background mode".

*In case of differences between the Windows and Linux versions of Sedna they are marked out with `[win:]` and `[linux:]` respectively.

3. Create a new database `auction` by running the following command:

```
se_cdb auction
```

If the database is created successfully it prints "The database 'auction' has been created successfully".

4. Start the `auction` database by running the following command:

```
se_sm auction
```

If the database is started successfully it prints "SM has been started in the background mode".

5. Load the sample XML document into the `auction` database by typing the command:

```
se_trn auction load_data.xquery
```

If the document is loaded successfully it prints "UPDATE is executed successfully".

6. Now you can execute the sample queries by typing the command:

```
se_trn auction <query_name>.xquery
```

where `<query_name>.xquery` is the name of a file with the sample query. For instance, to execute `sample01.xquery` you should type

```
se_trn auction sample01.xquery
```

It prints the query result.

7. Stop Sedna by running the following command:

```
se_stop
```

2 Example Description

The example consists of a sample XML document and a set of sample XQuery queries to this document. The example is located in the directory [win:] `INSTALL_DIR\examples\databases\auction` [linux:] `INSTALL_DIR/examples/databases/auction`. The example is based on the XMark XML benchmark [1].

The sample document named `auction.xml` contains sample information from an Internet auction site. The main elements of the document are: *person*, *bid*, *open auction*, *closed auction*, *item*, *category*, and *mail*. The short description of these elements is as follows. *Items* are the objects that are on for sale or that already have been sold. *Auctions* can be of two types *closed auction* when all items have been sold or *open auction* when there are items on offer. *Persons* make *bids* increasing prices of items and interested in some *categories* of items. Categories are linked into network. There are also some *mails*, concerning items.

We also provide ten sample XQuery queries to the document, that give a good illustration of the Sedna functionality. The semantics of the queries is given below for your convenience:

1. Return the name of the person with ID ‘person0’ registered in North America.
2. Return the initial increases of all open auctions.
3. Return the number of sold items that cost more than 40.
4. Return the number of items listed on all continents.
5. Return the number of pieces of prose in the database.
6. List the names of items registered in Australia along with their descriptions.
7. For each richer-than-average person, list the number of items currently on sale whose price does not exceed 0.02 of the person’s income.
8. Group customers by their income and output the cardinality of each group.
9. Inserts a new person description into the auction.
10. Delete the person John Smith from auction description.

References

- [1] The XML benchmark project - XMark, www.xml-benchmark.org