
sofos Documentation

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CHAPTER 1

Quick startup tutorial

from your terminal run:

```
$ python3 -m venv ~/sofos-venv
$ source ~/sofos-venv/bin/activate
(sofos-venv) $ sofos-project sofos-test
(sofos-venv) $ cd sofos-test
(sofos-venv) $ python3 main.py
```

You just created your first sofos skeleton project. Have fun !!!

2.1 Submodules

2.2 sofos.database module

Module Database

class sofos.database.Database (*models*, *dbf=None*)

Bases: `object`

Database Class

backup_database ()

Backup database with timestamp

calc_md5 ()

Calculates the md5 of the models schema

Parameters **models** – normally models.py from your project folder

Returns md5 value

create_database (*dbf*, *init_db_file=None*)

Create tables from model definitions

Parameters

- **dbf** – Database filename
- **models** – The models module to use (Normally models.py in your application's root)
- **init_db_file** – The init_db_file.sql file to use if present

create_z_table ()

Create a metadata keys/values table and insert at least the md5 of the models schema.

Parameters **models** – normally models.py from your project folder

integrity (*parent_table*, *id_value*)

integrity_dict ()

Integrity dictionary

Returns Dictionary {parent1: {child1: fld1, child2: fld2, ... }, ... }

is_connected

is_database_compatible (*dbf*)

This function checks the databases creation md5 against current models md5 in order to evaluate equality of the two schemas

Parameters

- **dbf** – Database file
- **models** – normally models.py from your project folder

Returns True if database schema is the same with model schema

restore_database ()

Not implemented yet

set_database (*dbf*)

Set database if compatible

Parameters **dbf** – Database file name

Returns True or False.

sql_database_create ()

Create sql for table creation according to your model settings

Parameters **models** – normally models.py from your project folder

Returns create sql

table_labels (*as_dict=False*)

Returns table labels

table_names ()

Returns table names

table_object (*table_name*)

Returns table object by table name

Parameters **table_name** – table name

table_objects ()

models: models.py from our project folder

Returns Dictionary

return dictionary format:

```
{table_name1: table_object1, ...}
```

2.3 sofos.dbf module

`sofos.dbf.backup` (*dbf*, *backupfile*, *overwrite=False*, *inserts_only=True*)

Backup database

Parameters

- **dbf** – Database file to backup
- **backupfile** – backup destination filename
- **overwrite** – If is allowed to overwrite
- **inserts_only** – If True backup data only, if False backup everything

Returns True if backup was successful

`sofos.dbf.delete(dbf, sql)`

Delete from db

Parameters

- **dbf** – Database file
- **sql** – sql

Returns True if success, False else

`sofos.dbf.read(dbf, sql, returns)`

SELECT

Parameters

- **dbf** – Database file
- **sql** – sql
- **returns** – Return Type

Returns one, list of dicts, cols/rows, rows

`sofos.dbf.ref_exists(dbf, table, field, idv)`

`sofos.dbf.save(dbf, sql)`

Safely save (create or update) data to database

Parameters

- **dbf** – Database file name (full path)
- **sql** – select sql

Returns True is operation successful, else False

`sofos.dbf.script(dbf, sql, create=False)`

Run sql script against database dbf

Parameters

- **dbf** – Database file name(full path)
- **sql** – Sql to execute (Normally inside Transaction)
- **create** – If True creates new database file

2.4 sofos.gr module

Greek language functions

`sofos.gr.cap_first_letter(txt)`

Capitalize first letter.

Example:

```
>>> import gr
>>> gr.cap_first_letter('abcd')
'Abcd'
```

`sofos.gr.date2gr` (*date*, *no_trailing_zeros=False*)
Create Greek Date

Parameters

- **date** – iso date ‘yyyy-mm-dd’
- **date** – iso_date
- **no_trailing_zeros** – Month, Day without trailing zeros

Returns ‘dd/mm/yyyy’

Example:

```
>>> import dategr
>>> dategr.date2gr('2017-01-05')
'05/01/2017'
>>> dategr.date2gr('2017-01-15', no_trailing_zeros=True)
'5/1/2017'
```

`sofos.gr.dec` (*poso=0*, *decimals=2*)
Returns a decimal. If *poso* is not a number or *None* returns `dec(0)`

Parameters

- **poso** – the number to transform to decimal
- **decimals** – Number of decimals

Returns A decimal number with specific number of decimal digits

`sofos.gr.dec2gr` (*poso*, *decimals=2*, *zero_as_space=False*)
Returns string formatted as Greek decimal (1234.56 becomes 1.234,56)

Parameters

- **poso** – number to format
- **decimals** – Number of decimal digits
- **zero_as_space** – if True then zero values become one space

Returns Greek formatted number

Example:

```
>>> import gr
>>> gr.dec2gr('-2456')
'2.456,00'
>>> gr.dec2gr(0, zero_as_space=True)
' '
```

`sofos.gr.gr2dec` (*poso*, *decimals=2*)
Returns decimal (12.345,67 becomes 12345.67)

Parameters

- **poso** – text Greek formatted number
- **decimals** – decimal digits

Returns Decimal number

`sofos.gr.gr2en(txt, space='')`
Greek to Greeglish

Parameters

- **txt** – Text to translate to Greeglish
- **space** – If space == ‘’ then capitalize txt

`sofos.gr.grup(txtval)`
Trasforms a string to uppercase special for Greek comparison

`sofos.gr.isNum(val)`
Check if val is number or not

Parameters **val** – value to check

Returns True if val is number else False

`sofos.gr.is_integer(val)`
True if integer False otherwise

`sofos.gr.is_iso_date(strdate)`
Check if strdate is isodate (yyyy-mm-dd)

Parameters **strdate** – normally an iso formatted (yyyy-mm-dd) string

Returns True if iso_date False else

`sofos.gr.is_positive_integer(val)`
True if positive integer False otherwise

`sofos.gr.is_weekdays(value)`
Return True if value is weekdays False else

`sofos.gr.rename_file(fname, no_space=True)`
Rename a file

Parameters

- **fname** – file to rename
- **no_space** – remove spaces from filename

Returns A filename in greeglish

`sofos.gr.triades(txt, separator='.')`
Help function to split digits to thousands (123456 becomes 123.456)

Parameters

- **txt** – text to split
- **separator** – The separator to use

Returns txt separated by separator in group of three

Example:

```
>>> import gr
>>> gr.triades('abcdefg')
'a.bcd.efg'
>>> gr.triades('abcdefg', separator='|')
'a|bcd|efg'
```

2.5 sofos.models module

2.6 sofos.qt module

2.7 Module contents

CHAPTER 3

Indices and tables

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