uknow Documentation

Release 0.0.2.3

blxlrsmb team

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Welcome! This documentation is generated on November 16, 2013 for uknow 0.0.2.3.

CHAPTER

ONE

NOTES FOR DEVELOPERS

Contents

- Notes for Developers
  - Getting Started
    - Environment Setup
    - Configuration
  - Miscellaneous Specifications and Instructions
    - Framework
    - Code Style
    - Documenting

Contact Kai Jia <jia.kai66@gmail.com> if you have any question about this page.

1.1 Getting Started

1.1.1 Environment Setup

1. Install MongoDB, Redis and their development packages if you don't already have them installed. Usually this is via your system's package manager.
2. Install virtualenv:

   ```
   $ sudo pip install virtualenv
   ```

3. Install python packages as dependencies

   ```
   $ cd manage
   $ ./quickinstall
   ```

1.1.2 Configuration

The static system configuration file is `manage/config.py`, allowing the developers applying their local settings without having to change the system defaults.

An example file:

```
FRONTEND_PORT = 4999
API_PORT = 5000

API_RUN_OPTIONS = {
    'debug': True
}

FRONTEND_RUN_OPTIONS = {
    'debug': True
}
```

1.2 Miscellaneous Specifications and Instructions

1.2.1 Framework

Flask is used as the web framework, and MongoDB as the database

1.2.2 Code Style

Follow the Style Guide for Python Code. Use pylint to check the style and find potential bugs. Execute the *run-pylint* script to invoke pylint.

The following lines should be included in every Python source file:

```
# $File: <file name>
# $Date: <last modification time>
#
# Copyright (C) 2012 the uknow development team <see AUTHORS file>
#
# Contributors to this file:
#    <you name and email here>
#
# This file is part of uknow
#
# uknow is free software: you can redistribute it and/or modify
# it under the terms of the GNU General Public License as published by
# the Free Software Foundation, either version 3 of the License, or
# (at your option) any later version.
#
# uknow is distributed in the hope that it will be useful,
# but WITHOUT ANY WARRANTY; without even the implied warranty of
# MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.  See the
# GNU General Public License for more details.
#
# You should have received a copy of the GNU General Public License
# along with uknow.  If not, see <http://www.gnu.org/licenses/>.
#
```

Configure your editor to update the *$File* and *$Date* fields automatically. Add your name to the contributors field and the AUTHORS file.

By the way, if vim is your favorite, you can add the following lines to your vimrc:

```
autocmd filetype python set expandtab
autocmd filetype python set textwidth=79
```

1.2.3 Documenting

Write docstrings for every package, module, public class, public method, public function, etc. The documents should be written in English.

Register all the global names in *global-name-list*.

These documents are generated from reStructuredText sources and docstrings by Sphinx. Issue the following command to generate all the documents:

```
$ cd <path-to-uknow-source-root>/docs/api
$ ./gendoc.sh
```

CHAPTER

TWO

API REFERENCE

2.1 common Package

2.1.1 ukdbconn Module

database connections

common.ukdbconn.**get_mongo**(*coll_name=None*)

2.1.2 uklogger Module

utilities for handling logging

common.uklogger.**log_err**(*msg*)
log an err message

common.uklogger.**log_exc**(*exc*)
log an unexpected exception

common.uklogger.**log_info**(*msg*)
log an info message

2.1.3 ukuser Module

utilities for managing users

common.ukuser.**get_enabled_fetcher**(*user_id*)

Returns a list of fetcher names enabled by this user

common.ukuser.**get_enabled_prefilter**(*user_id*)

Returns a list of prefilter names enabled by this user

2.1.4 ukutil Module

common utility functions

common.ukutil.**import_all_modules**(*file_path*, *pkg_name*)
import all modules recursively in a package :param file_path: just pass __file__ :param pkg_name: just pass __name__

2.1.5 Subpackages

ukconfig Package

ukconfig Package

user config; defaults are in stored in default.py, and can be overwritten by user.py, which is in .gitignore

default Module

default config values

common.ukconfig.default.**general_fetcher_sleep_interval_default** = 10
interval for each general fetcher to sleep between consecutive fetches

common.ukconfig.default.**general_fetcher_sleep_interval_special** = {}
overwrite default settings, fetcher name => value

2.2 ukapi Package

2.2.1 ukapi Package

unknown informatin hub API website

global variables: g.user_id ID of current user (int)

class ukapi.__init__.**DefaultConfig**
Bases: object

API_HOST = None

API_PORT = None

API_RUN_OPTIONS = {}

ukapi.__init__.**get_app**()
load API modules and return the WSGI application

2.2.2 Subpackages

api Package

api Package

website API entry points

class ukapi.api.**api_method**(*url_rule*, ***kwargs*)
Bases: object

use as a decorator to register an API

all_url_rule = []
class level attribute for all url rules

api_implementation = None
a callable implementing current API, which takes no argument and returns a dict

url_rule = None
url rule for current API

url_rule_extra_kwargs = None
extra keyword arguments for url rule

view_func()
the view_func passed to Flask.add_url_rule

ukapi.api.**page_not_found**(_)

sample Module

sample api

ukapi.api.sample.**test**()
api which returns the answer to life, universe and everything

test Module

test with user id

ukapi.api.test.**test**()
given user id and return all items

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THREE

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