# Flask-Blogging Documentation

Release 1.0.2

**Gouthaman Balaraman** 

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Flask-Blogging is a Flask extension for adding Markdown based blog support to your site. It provides a flexible mechanism to store the data in the database of your choice. It is meant to work with the authentication provided by packages such as Flask-Login or Flask-Security.

The philosophy behind this extension is to provide a lean app based on Markdown to provide blog support to your existing web application. If you already have a web app and you need to have a blog to communicate with your user or to promote your site through content based marketing, then Flask-Blogging would help you quickly get a blog up and running.

Out of the box, Flask-Blogging has support for the following:

- Bootstrap based site
- · Markdown based blog editor
- Upload and manage static assets for the blog
- Models to store blog
- Authentication of User's choice
- Sitemap, ATOM support
- Disqus support for comments
- · Google analytics for usage tracking
- Open Graph meta tags
- Permissions enabled to control which users can create/edit blogs
- Integrated Flask-Cache based caching for optimization
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## Quick Start Example

```
from flask import Flask, render_template_string, redirect
from sqlalchemy import create_engine, MetaData
from flask_login import UserMixin, LoginManager, login_user, logout_user
from flask_blogging import SQLAStorage, BloggingEngine
app = Flask(__name___)
app.config["SECRET_KEY"] = "secret" # for WTF-forms and login
app.config["BLOGGING_URL_PREFIX"] = "/blog"
app.config["BLOGGING_DISQUS_SITENAME"] = "test"
app.config["BLOGGING_SITEURL"] = "http://localhost:8000"
app.config["BLOGGING_SITENAME"] = "My Site"
app.config["BLOGGING_KEYWORDS"] = ["blog", "meta", "keywords"]
app.config["FILEUPLOAD_IMG_FOLDER"] = "fileupload"
app.config["FILEUPLOAD_PREFIX"] = "/fileupload"
app.config["FILEUPLOAD_ALLOWED_EXTENSIONS"] = ["png", "jpg", "jpeg", "gif"]
# extensions
engine = create_engine('sqlite:///tmp/blog.db')
meta = MetaData()
sql_storage = SQLAStorage(engine, metadata=meta)
blog_engine = BloggingEngine(app, sql_storage)
login_manager = LoginManager(app)
meta.create_all(bind=engine)
class User(UserMixin):
   def __init__(self, user_id):
       self.id = user_id
    def get_name(self):
        return "Paul Dirac" # typically the user's name
@login_manager.user_loader
@blog_engine.user_loader
def load_user(user_id):
```

```
return User(user_id)
index_template = """
<!DOCTYPE html>
<html>
   <head> </head>
    <body>
       { % if current_user.is_authenticated % }
           <a href="/logout/"> Logout </a>
        { % else % }
           <a href="/login/"> Login </a>
        { % endif % }
        &nbsp&nbsp<a href="/blog/"> Blog </a>
        &nbsp&nbsp<a href="/blog/sitemap.xml">Sitemap</a>
        &nbsp&nbsp<a href="/blog/feeds/all.atom.xml">ATOM</a>
        &nbsp&nbsp<a href="/fileupload/">FileUpload</a>
    </body>
</html>
@app.route("/")
def index():
   return render_template_string(index_template)
@app.route("/login/")
def login():
   user = User("testuser")
    login_user(user)
   return redirect("/blog")
@app.route("/logout/")
def logout():
   logout_user()
   return redirect("/")
if __name__ == "__main__":
    app.run(debug=True, port=8000, use_reloader=True)
```

The key components required to get the blog hooked is explained below. Please note that as of Flask-Login 0.3.0 the is\_authenticated attribute in the UserMixin is a property and not a method. Please use the appropriate option based on your Flask-Login version. You can find more examples here in the Flask-Blogging github project page.

## Configuring your Application

The BloggingEngine class is the gateway to configure blogging support to your web app. You should create the BloggingEngine instance like this:

```
blogging_engine = BloggingEngine()
blogging_engine.init_app(app, storage)
```

You also need to pick the storage for blog. That can be done as:

```
from sqlalchemy import create_engine, MetaData
engine = create_engine("sqlite:///tmp/sqlite.db")
meta = MetaData()
storage = SQLAStorage(engine, metadata=meta)
meta.create_all(bind=engine)
```

Here we have created the storage, and created all the tables in the metadata. Once you have created the blogging engine, storage, and all the tables in the storage, you can connect with your app using the init\_app method as shown below:

```
blogging_engine.init_app(app, storage)
```

If you are using Flask-Sqlalchemy, you can do the following:

```
from flask_sqlalchemy import SQLAlchemy

db = SQLAlchemy(app)
storage = SQLAStorage(db=db)
db.create_all()
```

One of the changes in version 0.3.1 is the ability for the user to provide the metadata object. This has the benefit of the table creation being passed to the user. Also, this gives the user the ability to use the common metadata object, and hence helps with the tables showing up in migrations while using Alembic.

As of version 0.5.2, support for the multi database scenario under Flask-SQLAlchemy was added. When we have a multiple database scenario, one can use the bind keyword in SQLAStorage to specify the database to bind to, as

shown below:

```
# config value
SQLALCHEMY_BINDS = {
    'blog': "sqlite:///tmp/blog.db"),
    'security': "sqlite:///tmp/security.db")
}
```

The storage can be initialised as:

```
db = SQLAlchemy(app)
storage = SQLAStorage(db=db, bind="blog")
db.create_all()
```

As of version 0.4.0, Flask-Cache integration is supported. In order to use caching in the blogging engine, you need to pass the Cache instance to the BloggingEngine as:

```
from flask_cache import Cache
from flask_blogging import BloggingEngine

blogging_engine = BloggingEngine(app, storage, cache)
```

Flask-Blogging lets the developer pick the authentication that is suitable, and hence requires her to provide a way to load user information. You will need to provide a BloggingEngine.user\_loader callback. This callback is used to load the user from the user\_id that is stored for each blog post. Just as in Flask-Login, it should take the unicode user\_id of a user, and return the corresponding user object. For example:

```
@blogging_engine.user_loader
def load_user(userid):
    return User.get(userid)
```

For the blog to have a readable display name, the User class must implement either the get\_name method or the \_\_str\_\_ method.

The BloggingEngine accepts an optional extensions argument. This is a list of Markdown extensions objects to be used during the markdown processing step.

As of version 0.6.0, a plugin interface is available to add new functionality. Custom processes can be added to the posts by subscribing to the post\_process\_before and post\_process\_after signals, and adding new functionality to it.

The BloggingEngine also accepts post\_processor argument, which can be used to provide a custom post processor object to handle the processing of Markdown text. One way to do this would be to inherit the default PostProcessor object and override process method.

In version 0.4.1 and onwards, the BloggingEngine object can be accessed from your app as follows:

```
engine = app.extensions["blogging"]
```

The engine method also exposes a get\_posts method to get the recent posts for display of posts in other views.

In earlier versions the same can be done using the key FLASK\_BLOGGING\_ENGINE instead of blogging. The use of FLASK\_BLOGGING\_ENGINE key will be deprecated moving forward.

## Models from SQLAStorage

*SQLAlchemy* ORM models for the *SQLAStorage* can be accessed after configurtion of the *SQLAStorage* object. Here is a quick example:

These ORM models can be extremely convenient to use with Flask-Admin.

## **Adding Custom Markdown Extensions**

One can provide additional MarkDown extensions to the blogging engine. One example usage is adding the codehilite MarkDown extension. Additional extensions should be passed as a list while initializing the BlogggingEngine as shown:

```
from markdown.extensions.codehilite import CodeHiliteExtension

extn1 = CodeHiliteExtension({})
blogging_engine = BloggingEngine(app, storage, extensions=[extn1])
```

This allows for the MarkDown to be processed using CodeHilite along with the default extensions. Please note that one would also need to include necessary static files in the view, such as for code highlighting to work.

### **Extending using Markdown Metadata**

Let's say you want to include a summary for your blog post, and have it show up along with the post. You don't need to modify the database or the models to accomplish this. This is in fact supported by default by way of Markdown metadata syntax. In your blog post, you can include metadata, as shown below:

```
Summary: This is a short summary of the blog post
Keywords: Blog, specific, keywords

This is the much larger blog post. There are lot of things to discuss here.
```

In the template page.html this metadata can be accessed as, post.meta.summary and can be populated in the way it is desired. The same metadata for each post is also available in other template views like index.html.

If included, the first summary will be used as the page's meta description, and Open Graph og:description.

The (optional) blog post specificvkeywords are included in the page's meta keywords in addition to "BLOG-GING\_KEYWORDS" (if configured). Any tags are also added as meta keywords.

## **Extending using the plugin framework**

The plugin framework is a very powerful way to modify the behavior of the blogging engine. Lets say you want to show the top 10 most popular tag in the post. Lets show how one can do that using the plugins framework. As a first step, we create our plugin:

```
# plugins/tag_cloud/__init__.py
from flask_blogging import signals
from flask_blogging.sqlastorage import SQLAStorage
import sqlalchemy as sqla
from sqlalchemy import func
def get_tag_data(sqla_storage):
   engine = sqla_storage.engine
   with engine.begin() as conn:
        tag_posts_table = sqla_storage.tag_posts_table
        tag_table = sqla_storage.tag_table
        tag_cloud_stmt = sqla.select([
            tag_table.c.text, func.count(tag_posts_table.c.tag_id)]).group_by(
            tag_posts_table.c.tag_id
        ).where(tag_table.c.id == tag_posts_table.c.tag_id).limit(10)
        tag_cloud = conn.execute(tag_cloud_stmt).fetchall()
    return tag_cloud
def get_tag_cloud(app, engine, posts, meta):
   if isinstance(engine.storage, SQLAStorage):
       tag_cloud = get_tag_data(engine.storage)
       meta["tag_cloud"] = tag_cloud
    else:
       raise RuntimeError("Plugin only supports SQLAStorage. Given storage"
                           "not supported")
   return
def register(app):
   signals.index_posts_fetched.connect(get_tag_cloud)
    return
```

The register method is what is invoked in order to register the plugin. We have connected this plugin to the index\_posts\_fetched signal. So when the posts are fetched to show on the index page, this signal will be fired, and this plugin will be invoked. The plugin basically queries the table that stores the tags, and returns the tag text and the number of times it is referenced. The data about the tag cloud we are storing in the meta["tag\_cloud"] which corresponds to the metadata variable.

Now in the *index.html* template, one can reference the meta.tag\_cloud to access this data for display. The plugin can be registered by setting the config variable as shown:

```
app.config["BLOGGING_PLUGINS"] = ["plugins.tag_cloud"]
```

## Configuration Variables

The Flask-Blogging extension can be configured by setting the following app config variables. These arguments are passed to all the views. The keys that are currently supported include:

- BLOGGING\_SITENAME (*str*): The name of the blog to be used as the brand name. This is also used in the feed heading and og:site\_name meta tag. (default "Flask-Blogging")
- BLOGGING\_SITEURL (str): The url of the site. This is also used in the og:pulisher meta tag.
- BLOGGING\_BRANDURL (*str*): The url of the site brand.
- BLOGGING\_TWITTER\_USERNAME (str): @name to tag social sharing link with.
- BLOGGING\_RENDER\_TEXT (*bool*): Value to specify if the raw text (markdown) should be rendered to HTML. (default True)
- BLOGGING\_DISQUS\_SITENAME (*str*): Disqus sitename for comments. A None value will disable comments. (default None)
- BLOGGING\_GOOGLE\_ANALYTICS (*str*): Google analytics code for usage tracking. A None value will disable google analytics. (default None)
- BLOGGING\_URL\_PREFIX (str): The prefix for the URL of blog posts. A None value will have no prefix. (default None)
- BLOGGING\_FEED\_LIMIT (*int*): The number of posts to limit to in the feed. If None, then all are shown, else will be limited to this number. (default None)
- BLOGGING\_PERMISSIONS (*bool*): If True, this will enable permissions for the blogging engine. With permissions enabled, the user will need to have "blogger" Role to edit or create blog posts. Other authenticated users will not have blog editing permissions. The concepts here derive from Flask-Principal. (default False)
- BLOGGING\_PERMISSIONNAME (*str*): The role name used for permissions. It is effective, if "BLOG-GING\_PERMISSIONS" is "True". (default "blogger")
- BLOGGING\_POSTS\_PER\_PAGE (*int*): The default number of posts per index page. to be displayed per page. (default 10)
- BLOGGING\_CACHE\_TIMEOUT (int): The timeout in seconds used to cache. the blog pages. (default 60)

- BLOGGING\_PLUGINS (*list*): A list of plugins to register.
- BLOGGING\_KEYWORDS (*list*): A list of meta keywords to include on each page.
- ullet BLOGGING\_ALLOW\_FILEUPLOAD (bool): Allow static file uploads flask\_fileupload
- BLOGGING\_ESCAPE\_MARKDOWN (*bool*): Escape input markdown text input. This is True by default. Set this to false to allow embedding HTML in markdown.

**Blog Views** 

There are various views that are exposed through Flask-Blogging. The URL for the various views are:

- url\_for('blogging.index') (GET): The index blog posts with the first page of articles. The meta variable passed into the view holds values for the keys is\_user\_blogger, count and page.
- url\_for('blogging.page\_by\_id', post\_id=<post\_id>) (GET): The blog post corresponding to the post\_id is retrieved. The meta variable passed into the view holds values for the keys is\_user\_blogger, post\_id and slug.
- url\_for('blogging.posts\_by\_tag', tag=<tag\_name>) (GET): The list of blog posts corresponding to tag\_name is returned. The meta variable passed into the view holds values for the keys is\_user\_blogger, tag, count and page.
- url\_for('blogging.posts\_by\_author', user\_id=<user\_id>) (GET): The list of blog posts written by the author user\_id is returned. The meta variable passed into the view holds values for the keys is\_user\_blogger, count, user\_id and pages.
- url\_for('blogging.editor') (GET, POST): The blog editor is shown. This view needs authentication and permissions (if enabled).
- url\_for('blogging.delete', post\_id=<post\_id>) (POST): The blog post given by post\_id is deleted. This view needs authentication and permissions (if enabled).
- url\_for('blogging.sitemap') (GET): The sitemap with a link to all the posts is returned.
- url\_for('blogging.feed') (GET): Returns ATOM feed URL.

The view can be easily customised by the user by overriding with their own templates. The template pages that need to be customized are:

- blogging/index.html: The blog index page used to serve index of posts, posts by tag, and posts by author
- blogging/editor.html: The blog editor page.
- blogging/page.html: The page that shows the given article.
- blogging/sitemap.xml: The sitemap for the blog posts.

## **Permissions**

In version 0.3.0 Flask-Blogging, enables permissions based on Flask-Principal. This addresses the issue of controlling which of the authenticated users can have access to edit or create blog posts. Permissions are enabled by setting <code>BLOGGING\_PERMISSIONS</code> to <code>True</code>. Only users that have access to <code>Role</code> "blogger" will have permissions to create or edit blog posts.

### Screenshots

## **Blog Page**

## **Dirac Equation**

Posted by Paul Dirac on 16 May, 2017



In particle physics, the Dirac equation is a relativistic wave equation derived by British physicist Paul Dirac in 1928. In its free form, or including electromagnetic interactions, it describes all spin-1/2 massive particles such as electrons and quarks for which parity is a symmetry. It is consistent with both the principles of quantum mechanics and the theory of special relativity,[1] and was the first theory to account fully for special relativity in the context of quantum mechanics. It was validated by accounting for the fine details of the hydrogen spectrum in a completely rigorous way.

The Dirac Equation is given as

QUANTUM MECHANICS

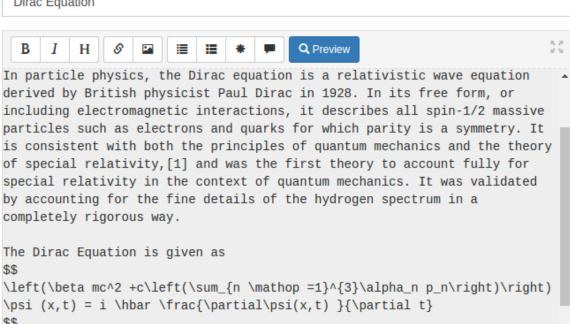
$$\left(\beta mc^2 + c\left(\sum_{n=1}^3 \alpha_n p_n\right)\right) \psi(x,t) = i\hbar \frac{\partial \psi(x,t)}{\partial t}$$



### **Blog Editor**

#### Title

Dirac Equation



Learn more about MarkDown Upload new File

#### Tags

QUANTUM MECHANICS

submit

## **Useful Tips**

• Migrations with Alembic: (Applies to versions 0.3.0 and earlier) If you have migrations part of your project using Alembic, or extensions such as Flask-Migrate which uses Alembic, then you have to modify the Alembic configuration in order for it to ignore the Flask-Blogging related tables. If you don't set these modifications, then every time you run migrations, Alembic will not recognize the tables and mark them for deletion. And if you happen to upgrade by mistake then all your blog tables will be deleted. What we will do here is ask Alembic to exclude the tables used by Flask-Blogging. In your alembic ini file, add a line:

```
[alembic:exclude]
tables = tag, post, tag_posts, user_posts
```

If you have a value set for table\_prefix argument while creating the SQLAStorage, then the table names will contain that prefix in their names. In which case, you have to use appropriate names in the table names.

And in your env.py, we have to mark these tables as the ones to be ignored.

```
def exclude_tables_from_config(config_):
    tables_ = config_.get("tables", None)
    if tables_ is not None:
        tables = tables_.split(",")
    return tables

exclude_tables = exclude_tables_from_config(config.get_section('alembic:exclude'))

def include_object(object, name, type_, reflected, compare_to):
    if type_ == "table" and name in exclude_tables:
        return False
    else:
        return True

def run_migrations_online():
    """Run migrations in 'online' mode.

In this scenario we need to create an Engine
    and associate a connection with the context.
```

In the above, we are using include\_object in context.configure(...) to be specified based on the include\_object function.

#### Release Notes

- **Version 1.0.2** (*Release September 2, 2017*)
- · Add social links
- Add a choice to escape markdown input
- Remove negative offset for SQLAStorage storage engine.
- **Version 1.0.1** (*Release July 22, 2017*)
- Expanded the example with S3Storage for Flask-FileUpload
- Post id for DynamoDB only uses lower case alphabet and numbers
- Version 1.0.0 (Release July 15, 2017)
  - Added DynamoDB storage
  - Add Open Graph support
- Version 0.9.2 (Release June 25, 2017)
  - Additional fixes to automap\_base in creating Post and Tag models
- **Version 0.9.1** (*Release June 23, 2017*)
  - Fixes to automap\_base in creating Post and Tag models
  - Some improvements to blog page generation
- Version 0.9.0 (Release Jun 17, 2017)
  - Added information contained in the meta variable passed to the views as requested in (#102)
  - Add missing space to Prev pagination link text (#103)
  - Only render the modal of the user is a blogger (#101)
  - Added Post and Tag models in sqlastorage using automap\_base.
- Version 0.8.0 (Release May 16, 2017)
  - Added integration with Flask-FileUpload to enable static file uploads (#99)

- Updated compatibility to latest Flask-WTF package (#96, #97)
- Updated to latest bootstrap-markdown package (#92)
- Added alert fade outs (#94)
- **Version 0.7.4** (*Release November 17, 2016*)
  - Fix Requirements.txt error
- **Version 0.7.3** (*Release November 6, 2016*)
  - Fix issues with slugs with special characters (#80)
- **Version 0.7.2** (*Release October 30, 2016*)
  - Moved default static assets to https (#78)
  - Fixed the issue where post fetched wouldn't emit when no posts exist (#76)
- Version 0.7.1 (Released July 5, 2016)
  - Improvements to docs
  - Added extension import transition (@slippers)
- Version 0.7.0 (Released May 25, 2016)
- Version 0.6.0 (Released January 14, 2016)
  - The plugin framework for Flask-Blogging to allow users to add new features and capabilities.
- Version 0.5.2 (Released January 12, 2016)
  - Added support for multiple binds for SQLAStorage
- **Version 0.5.1** (*Released December 6, 2015*)
  - Fixed the flexibility to add custom extensions to *BloggingEngine*.
- Version 0.5.0 (Released November 23, 2015)
  - Fixed errors encountered while using Postgres database
- **Version 0.4.2** (*Released September 20, 2015*)
  - Added compatibility with Flask-Login version 0.3.0 and higher, especially to handle migration of is\_autheticated attribute from method to property. (#43)
- **Version 0.4.1** (*Released September 16, 2015*)
  - Added javascript to center images in blog page
  - Added method in blogging engine to render post and fetch post.
- Version 0.4.0 (Released July 26, 2015)
  - Integrated Flask-Cache to optimize blog page rendering
  - Fixed a bug where anonymous user was shown the new blog button
- Version 0.3.2 (Released July 20, 2015)
  - Fixed a bug in the edit post routines. The edited post would end up as a new one instead.
- Version 0.3.1 (Released July 17, 2015)
  - The SQLAStorage accepts metadata, and SQLAlchemy object as inputs. This adds the ability to keep
    the blogging table metadata synced up with other models. This feature adds compatibility with Alembic
    autogenerate.

- Update docs to reflect the correct version number.
- Version 0.3.0 (Released July 11, 2015)
  - Permissions is a new feature introduced in this version. By setting BLOGGING\_PERMISSIONS to True, one can restrict which of the users can create, edit or delete posts.
  - Added BLOGGING POSTS PER PAGE configuration variable to control the number of posts in a page.
  - Documented the url construction procedure.
- Version 0.2.1 (Released July 10, 2015)
  - BloggingEngine init\_app method can be called without having to pass a storage object.
  - Hook tests to setup.py script.
- **Version 0.2.0** (*Released July 6, 2015*)
  - BloggingEngine configuration moved to the app config setting. This breaks backward compatibility.
     See compatibility notes below.
  - Added ability to limit number of posts shown in the feed through app configuration setting.
  - The setup.py reads version from the module file. Improves version consistency.
- **Version 0.1.2** (*Released July 4, 2015*)
  - Added Python 3.4 support
- Version 0.1.1 (Released June 15, 2015)
  - Fixed PEP8 errors
  - Expanded SQLAStorage to include Postgres and MySQL flavors
  - Added post\_date and last\_modified\_date as arguments to the Storage.save\_post(...)
     call for general compatibility
- **Version 0.1.0** (*Released June 1, 2015*)
  - Initial Release
  - Adds detailed documentation
  - Supports Markdown based blog editor
  - Has 90% code coverage in unit tests

## Compatibility Notes

#### • Version 0.4.1:

The documented way to get the blogging engine from app is using the key blogging from app. extensions.

#### • Version 0.3.1:

The SQLAStorage will accept metadata and set it internally. The database tables will not be created automatically. The user would need to invoke create\_all in the metadata or SQLAlchemy object in Flask-SQLAlchemy.

#### • Version 0.3.0:

- In this release, the templates folder was renamed from blog to blogging. To override the existing templates, you will need to create your templates in the blogging folder.
- The blueprint name was renamed from blog\_api to blogging.

#### • Version 0.2.0:

In this version, BloggingEngine will no longer take config argument. Instead, all configuration can be done through app config variables. Another BloggingEngine parameter, url\_prefix is also available only through config variable.

**API** Documentation

#### **Module contents**

#### **Submodules**

### flask\_blogging.engine module

The BloggingEngine module.

```
 \begin{array}{c} \textbf{class} \; \texttt{flask\_blogging.engine.BloggingEngine} \; (app=None, \\ post\_processor=None, \\ cache=None, file\_upload=None) \\ \\ \textbf{Bases: object} \end{array}
```

The BloggingEngine is the class for initializing the blog support for your web app. Here is an example usage:

```
from flask import Flask
from flask_blogging import BloggingEngine, SQLAStorage
from sqlalchemy import create_engine

app = Flask(__name__)
db_engine = create_engine("sqlite:///tmp/sqlite.db")
meta = MetaData()
storage = SQLAStorage(db_engine, metadata=meta)
blog_engine = BloggingEngine(app, storage)
```

```
__init__(app=None, storage=None, post_processor=None, extensions=None, cache=None, file_upload=None)
```

#### **Parameters**

• app (object) - Optional app to use

- **storage** (object) The blog storage instance that implements the Storage class interface.
- **post\_processor** (object) (optional) The post processor object. If none provided, the default post processor is used.
- **extensions** (*list*) (optional) A list of markdown extensions to add to post processing step.
- cache (Object) (Optional) A Flask-Cache object to enable caching
- **file\_upload** (Object) (Optional) A FileUpload object from flask\_fileupload extension

#### Returns

#### blogger\_permission

```
get_posts (count=10, offset=0, recent=True, tag=None, user_id=None, include_draft=False, ren-
der=False)
```

```
classmethod get_user_name (user)
```

```
init_app (app, storage=None, cache=None)
```

Initialize the engine.

#### **Parameters**

- app (Object) The app to use
- **storage** (Object) The blog storage instance that implements the
- cache (Object Storage class interface.) (Optional) A Flask-Cache object to enable caching

```
is_user_blogger()
```

```
process_post (post, render=True)
```

A high level view to create post processing. :param post: Dictionary representing the post :type post: dict :param render: Choice if the markdown text has to be converted or not :type render: bool :return:

```
user_loader (callback)
```

The decorator for loading the user.

**Parameters** callback – The callback function that can load a user given a unicode user\_id.

**Returns** The callback function

### flask blogging.processor module

```
class flask_blogging.processor.PostProcessor
    Bases: object
    classmethod all_extensions()
    classmethod construct_url(post)
    static create_slug(title)
    static extract_images(post)
    classmethod is_author(post, user)
```

```
classmethod process (post, render=True)
    This method takes the post data and renders it :param post: :param render: :return:
classmethod render_text (post)
classmethod set custom extensions (extensions)
```

### flask\_blogging.sqlastorage module

The SQLAStorage implements the interface specified by the Storage class. This class uses SQLAlchemy to implement storage and retrieval of data from any of the databases supported by SQLAlchemy.

```
__init__ (engine=None, table_prefix='', metadata=None, db=None, bind=None)
The constructor for the SQLAStorage class.
```

Parameters engine - The SQLAlchemy engine instance created by calling

create\_engine. One can also use Flask-SQLAlchemy, and pass the engine property. :type engine: object :param table\_prefix: (Optional) Prefix to use for the tables created

```
(default "").
```

#### **Parameters**

- metadata (object) (Optional) The SQLAlchemy MetaData object
- db (object) (Optional) The Flask-SQLAlchemy SQLAlchemy object
- bind (Optional) Reference the database to bind for multiple

database scenario with binds :type bind: str

#### all\_tables

count\_posts (tag=None, user\_id=None, include\_draft=False)

Returns the total number of posts for the give filter

#### **Parameters**

- tag (str) Filter by a specific tag
- user\_id (str) Filter by a specific user
- include\_draft (bool) Whether to include posts marked as draft or not

**Returns** The number of posts for the given filter.

```
delete_post (post_id)
```

Delete the post defined by post\_id

**Parameters** post\_id (int) – The identifier corresponding to a post

**Returns** Returns True if the post was successfully deleted and False otherwise.

#### engine

```
get_post_by_id (post_id)
    Fetch the blog post given by post_id
```

**Parameters**  $post_id(str)$  – The post identifier for the blog post

**Returns** If the post\_id is valid, the post data is retrieved, else returns None.

get\_posts (count=10, offset=0, recent=True, tag=None, user\_id=None, include\_draft=False)
Get posts given by filter criteria

#### **Parameters**

- **count** (*int*) The number of posts to retrieve (default 10)
- **offset** (*int*) The number of posts to offset (default 0)
- recent (bool) Order by recent posts or not
- tag (str) Filter by a specific tag
- **user\_id** (str) Filter by a specific user
- include\_draft (bool) Whether to include posts marked as draft or not

**Returns** A list of posts, with each element a dict containing values for the following keys: (title, text, draft, post\_date, last\_modified\_date). If count is None, then all the posts are returned.

#### metadata

post\_model

post\_table

Persist the blog post data. If post\_id is None or post\_id is invalid, the post must be inserted into the storage. If post\_id is a valid id, then the data must be updated.

#### **Parameters**

- title (str) The title of the blog post
- **text** (str) The text of the blog post
- user\_id (str) The user identifier
- tags (list) A list of tags
- **draft** (bool) (Optional) If the post is a draft of if needs to be published. (default False)
- **post\_date** (*datetime.datetime*) (Optional) The date the blog was posted (default datetime.datetime.utcnow())
- last\_modified\_date (datetime.datetime) (Optional) The date when blog was last modified (default datetime.datetime.utcnow())
- post\_id (str) (Optional) The post identifier. This should be None for an insert call, and a valid value for update. (default None)

**Returns** The post\_id value, in case of a successful insert or update. Return None if there were errors.

```
tag_model
tag_posts_table
tag_table
user_posts_table
```

## flask\_blogging.storage module

```
class flask_blogging.storage.Storage
Bases: object
count_posts (tag=None, user_id=None, include_draft=False)
Returns the total number of posts for the give filter
```

#### **Parameters**

- tag(str) Filter by a specific tag
- **user\_id** (str) Filter by a specific user
- include\_draft (bool) Whether to include posts marked as draft or not

**Returns** The number of posts for the given filter.

```
delete_post (post_id)
```

Delete the post defined by post\_id

**Parameters** post\_id (int) - The identifier corresponding to a post

**Returns** Returns True if the post was successfully deleted and False otherwise.

```
get_post_by_id (post_id)
```

Fetch the blog post given by post\_id

**Parameters** post\_id (int) - The post identifier for the blog post

**Returns** If the post\_id is valid, the post data is retrieved,

else returns None.

get\_posts (count=10, offset=0, recent=True, tag=None, user\_id=None, include\_draft=False)
Get posts given by filter criteria

#### **Parameters**

- **count** (*int*) The number of posts to retrieve (default 10). If count is None, all posts are returned.
- **offset** (*int*) The number of posts to offset (default 0)
- recent (bool) Order by recent posts or not
- tag (str) Filter by a specific tag
- **user\_id** (str) Filter by a specific user
- include\_draft (bool) Whether to include posts marked as draft or not

**Returns** A list of posts, with each element a dict containing values for the following keys: (title, text, draft, post\_date, last\_modified\_date). If count is None, then all the posts are returned.

```
static normalize tag(tag)
```

```
classmethod normalize_tags (tags)
```

 $\begin{tabular}{lll} \textbf{save\_post} (title, text, user\_id, tags, draft=False, post\_date=None, last\_modified\_date=None, \\ meta\_data=None, post\_id=None) \end{tabular}$ 

Persist the blog post data. If post\_id is None or post\_id is invalid, the post must be inserted into the storage. If post\_id is a valid id, then the data must be updated.

#### **Parameters**

• **title** (str) – The title of the blog post

- text (str) The text of the blog post
- user\_id (str) The user identifier
- tags (list) A list of tags
- **draft** (bool) If the post is a draft of if needs to be published.
- post\_date (datetime.datetime) (Optional) The date the blog was posted (default datetime.datetime.utcnow())
- last\_modified\_date (datetime.datetime) (Optional) The date when blog was last modified (default datetime.datetime.utcnow())
- meta\_data (dict) The meta data for the blog post
- **post\_id** (*int*) The post identifier. This should be None for an insert call, and a valid value for update.

Returns The post\_id value, in case of a successful insert or update.

Return None if there were errors.

## flask\_blogging.views module

## flask\_blogging.forms module

flask\_blogging.views.unless(blogging\_engine)

```
class flask_blogging.forms.BlogEditor(formdata=<object object>, **kwargs)
draft = <UnboundField(BooleanField, ('draft',), {'default': False})>
```

```
submit = <UnboundField(SubmitField, ('submit',), {})>
tags = <UnboundField(StringField, ('tags',), {'validators': [<wtforms.validators.DataRequired object>]})>
text = <UnboundField(TextAreaField, ('text',), {'validators': [<wtforms.validators.DataRequired object>]})>
title = <UnboundField(StringField, ('title',), {'validators': [<wtforms.validators.DataRequired object>]})>
```

### flask\_blogging.signals module

The flask\_blogging signals module

- flask\_blogging.signals = <module 'flask\_blogging.signals' from '/home/docs/checkouts/readthedocs.org/user\_builds/flast\_blogging signals module
- flask\_blogging.signals.engine\_initialised = <bli>Signal send by the BloggingEngine after the object is initialized. The arguments passed by the signal are:

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- flask\_blogging.signals.post\_processed = <bli>Signal sent when a post is processed (i.e., the markdown is converted to html text). The arguments passed along with this signal are:

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- post (dict) The post object which was processed
- render (bool) Flag to denote if the post is to be rendered or not
- flask\_blogging.signals.page\_by\_id\_fetched = <bli>blinker.base.NamedSignal object at 0x7f531b6e5b10; 'page\_by\_id<br/>Signal sent when a blog page specified by id is fetched, and prior to the post being processed.

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- post (dict) The post object which was fetched
- **meta** (dict) The metadata associated with that page
- flask\_blogging.signals.page\_by\_id\_processed = <bli>Signal sent when a blog page specified by id is fetched, and prior to the post being processed.

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- **post** (dict) The post object which was processed
- meta (dict) The metadata associated with that page
- flask\_blogging.signals.posts\_by\_tag\_fetched = <bli>Signal sent when posts are fetched for a given tag but before processing

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched with a given tag
- meta (dict) The metadata associated with that page
- flask\_blogging.signals.posts\_by\_tag\_processed = <bli>Signal sent after posts for a given tag were fetched and processed

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched and processed with a given tag
- meta (dict) The metadata associated with that page
- flask\_blogging.signals.posts\_by\_author\_fetched = <bli>Signal sent after posts by an author were fetched but before processing

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched with a given author
- meta (dict) The metadata associated with that page
- flask\_blogging.signals.posts\_by\_author\_processed = <bli>Signal sent after posts by an author were fetched and processed

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (ob ject) The blogging engine that was initialized
- posts (list) Lists of post fetched and processed with a given author
- **meta** (dict) The metadata associated with that page
- flask\_blogging.signals.index\_posts\_fetched = <bli>Signal sent after the posts for the index page are fetched

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched for the index page
- **meta** (dict) The metadata associated with that page
- flask\_blogging.signals.index\_posts\_processed = <bli>blinker.base.NamedSignal object at 0x7f531b6e5cd0; 'index\_j<br/>Signal sent after the posts for the index page are fetched and processed

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized

- posts (list) Lists of post fetched and processed with a given author
- meta (dict) The metadata associated with that page
- flask\_blogging.signals.feed\_posts\_fetched = <bli>Signal send after feed posts are fetched

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched and processed with a given author
- flask\_blogging.signals.feed\_posts\_processed = <bli>Signal send after feed posts are processed

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- **feed** (list) Feed of post fetched and processed
- flask\_blogging.signals.sitemap\_posts\_fetched = <bli>blinker.base.NamedSignal object at 0x7f531b6e5d90; 'sitemap\_Signal send after posts are fetched

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- posts (list) Lists of post fetched and processed with a given author
- flask\_blogging.signals.sitemap\_posts\_processed = <bli>Signal send after posts are fetched and processed

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (ob ject) The blogging engine that was initialized
- posts (list) Lists of post fetched and processed with a given author
- flask\_blogging.signals.editor\_post\_saved = <bli>Signal sent after a post was saved during the POST request

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- post\_id (int) The id of the post that was deleted
- user (object) The user object
- post (object) The post that was deleted
- flask\_blogging.signals.editor\_get\_fetched = <bli>Signal sent after fetching the post during the GET request

#### **Parameters**

• app (object) - The Flask app which is the sender

- engine (object) The blogging engine that was initialized
- post\_id (int) The id of the post that was deleted
- form (object) The form prepared for the editor display
- flask\_blogging.signals.post\_deleted = <bli>blinker.base.NamedSignal object at 0x7f531b6e5e90; 'post\_deleted'>
  The signal sent after the post is deleted.

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- post\_id (int) The id of the post that was deleted
- post (object) The post that was deleted
- flask\_blogging.signals.blueprint\_created = <bli>blinker.base.NamedSignal object at 0x7f531b6e5ed0; 'blueprint\_created' The signal sent after the blueprint is created. A good time to add other views to the blueprint.

#### **Parameters**

- app (object) The Flask app which is the sender
- engine (object) The blogging engine that was initialized
- blueprint (object) The blog app blueprint
- flask\_blogging.signals.sqla\_initialized = <bli>Signal sent after the SQLAStorage object is initialized

#### **Parameters**

- sqlastorage (object) The SQLAStorage object
- engine (object) The blogging engine that was initialized
- table\_prefix (str) The prefix to use for tables
- meta (object) The metadata for the database
- **bind** (*object*) The bind value in the multiple db scenario.

## Contributors

- Gouthaman Balaraman
- adilosa
- slippers
- Sundar Raman G
- Arthur Holzner
- Sean Pianka
- Matt Brookes

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