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**flicker**

***Release 0.3.1***

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Flicket is a simple web based ticketing system written in Python using the flask web framework which supports English and French locales.



## WHY FLICKET?

I could not find a simple open source ticketing system that I really liked. So, decided to have a crack at creating something written in Python.

### 1.1 Requirements

#### 1.1.1 Operating System

This will run on either Linux or Windows. Mac is untested.

#### 1.1.2 Python

Python =>3.10.

#### 1.1.3 SQL Database Server

Out of the box Flicket is configured to work with [MySQL](#). But there should be no reason other SQLAlchemy supported databases won't work just as well.

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**Note:** When I last tried SQLite I had problems configuring the email settings within the administration settings. You may have to change them manually within SQLite.

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#### 1.1.4 Web Server

For a production environment a webserver such as [Apache](#) or [nginx](#) should be used to serve the application.

## 1.2 Installation

First read [Requirements](#).

It is good practise to create a virtual environment before installing the python package requirements. Virtual environments can be considered a sand boxed python installation for a specific application. They are used since one application may require a different version of a python module than another.

### 1.2.1 Getting Flicket

The source code for Flicket is hosted at GitHub. You can either get the latest frozen zip file or use the latest master branch.

**Warning:** If you are upgrading from a previous version please read the CHANGELOG.

#### Master Branch

Get the latest master branch from github using git:

```
git clone https://github.com/evereux/flicket.git
```

Alternatively, download and unzip the master branch [zip file](#).

### 1.2.2 Installing Python Requirements

Install the requirements using pip::

```
(env) C:\<folder_path>\flicket> pip install -r requirements.txt
```

### 1.2.3 Set Up

1. If using PostgreSQL or MySQL create your database and a database user that will access the flicket database. If using SQLite you can skip this step.

See [SQLAlchemy\\_documentation](#) for options.

2. Create the configuration json file:

```
python -m scripts.create_json
```

3. If you aren't using SQLite edit *config.json* and change "db\_driver". "null" should be replaced by the driver you are using. See the documentation above regarding engines, dialects and drivers. For example, if you are using a MySQL database and want to use the pymysql driver.

```
"db_driver": "pymysql"
```

4. Install the driver you are using if not using SQLite. For example if you are using a MySQL database and want to use the pymysql driver.

```
pip install pymysql
```

- Upgrade the database using manage.py from the command line:

```
flask db upgrade
```

- Run the set-up script:. This is required to create the Admin user and site url defaults. These can be changed again via the admin panel once you log in:

```
flask run-set-up
```

- Running development server for testing:

```
flask run
```

Log into the server using the username *admin* and the password defined during the setup process.

## 1.3 Administration

### 1.3.1 Command Line Options

From the command line the following options are available.

```
python manage.py

usage: manage.py [-?]
                {db,run_set_up,export_users,import_users,update_user_posts,update_user_
↪assigned,email_outstanding_tickets,runserver,shell}
                ...

positional arguments:
  {db,run_set_up,export_users,import_users,update_user_posts,update_user_assigned,email_
↪outstanding_tickets,runserver,shell}
  db                    Perform database migrations
  run_set_up
  export_users          Command used by manage.py to export all the users from
                        the database to a json file. Useful if we need a list
                        of users to import into other applications.
  import_users          Command used by manage.py to import users from a json
                        file formatted such: [ { username, name, email,
                        password. }
  update_user_posts     Command used by manage.py to update the users total
                        post count. Use when upgrading from 0.1.4.
  update_user_assigned  Command used by manage.py to update the users total
                        post count. Use if upgrading to 0.1.7.
  email_outstanding_tickets
                        Script to be run independently of the webserver.
                        Script emails users a list of outstanding tickets that
                        they have created or been assigned. To be run on a
                        regular basis using a cron job or similar. Email
```

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|                         |                                                               |
|-------------------------|---------------------------------------------------------------|
|                         | functionality has to be enabled.                              |
| <code>runserver</code>  | Runs the Flask development server i.e. <code>app.run()</code> |
| <code>shell</code>      | Runs a Python shell inside Flask application context.         |
| optional arguments:     |                                                               |
| <code>-?, --help</code> | show this help message and exit                               |

## 1.3.2 Administration Config Panel

### Options

For email configuration the following options are available. At a minimum you should configure `mail_server`, `mail_port`, `mail_username` and `mail_password`.

For more information regarding these settings see the documentation for Flask-Mail.

**class** `flicket_admin.models.flicket_config.FlicketConfig`(\*args: Any, \*\*kwargs: Any)

Server configuration settings editable by administrators only via the administration page `/flicket_admin/config/`.

For email configuration settings see <https://flask-mail.readthedocs.io/en/latest/> for more information.

#### Parameters

- **mail\_server** (*str*) – example: `smtp.yourcompany.com`.
- **mail\_port** (*int*) – example: `567`
- **mail\_use\_tls** (*bool*) – example: `true`
- **mail\_use\_ssl** (*bool*) – example: `false`
- **mail\_debug** (*bool*) – example: `false`
- **mail\_username** (*str*) – example: `flicket.admin`
- **mail\_password** (*str*) –
- **mail\_default\_sender** (*str*) – example: `flicket.admin@yourcompany.com`
- **mail\_max\_emails** (*int*) –
- **mail\_suppress\_send** (*bool*) –
- **mail\_ascii\_attachments** (*bool*) –
- **application\_title** (*str*) – Changes the default banner text from *Flicket*. Can typically be your company name.
- **posts\_per\_page** (*str*) – Maximum number of posts / topics displayed per page.
- **allowed\_extensions** (*str*) – A comma delimited list of file extensions users are allowed to upload. DO NOT include the `.` before the extension letter.
- **ticket\_upload\_folder** (*str*) – The folder used for file uploads.
- **base\_url** (*str*) – The sites base url. This is used to resolve urls for emails and links. Broken links are probably a result of not setting this value.
- **csv\_dump\_limit** (*str*) – The maximum number of rows exported to csv.
- **change\_category** (*bool*) – Enable/disable change category.

- **change\_category\_only\_admin\_or\_super\_user** (*bool*) – Only admins or super users can change category.

**static extension\_allowed**(*filename*)

Validates extension of a given filename and returns True if valid. Otherwise False. :param filename: :return:

**static valid\_extensions**()

Returns a list of valid extensions. :return: list()

## 1.4 Exporting / Importing Flicket Users

### 1.4.1 Exporting

If you need to export the users from the Flicket database you can run the following command:

```
python manage.py export_users
```

This will output a json file formatted thus:

```
[
  {
    'username': 'jblogs',
    'name': 'Joe Blogs',
    'email': 'jblogs@email.com',
    'password': 'bcrypt_encoded_string'
  }
]
```

### 1.4.2 Importing

If you need to import users run the following command:

```
python manage.py import_users
```

The file has to be formatted as shown in the Exporting example.

## 1.5 Adding Additional Languages

Flicket now supports additional languages through the use of Flask Babel. To add an additional local:

- Edit *SUPPORTED\_LANGUAGES* in *config.py* and add an additional entry to the dictionary. For example: *{'en': 'English', 'fr': 'Francais', 'de': 'German'}*
- Whilst in the project root directory you now need to initialise the new language to generate a template file for it.

```
pybabel init -i messages.pot -d application/translations -l de
```

- In the folder *application/translations* there should now be a new folder *de*.
- Edit the file *messages.po* in that folder. For example:

```
msgid "403 Error - Forbidden"
msgstr "403 Error - Verboten"
```

- Compile the translations for use:

```
pybabel compile -d application/translations
```

- If any python or html text strings have been newly tagged for translation run:

```
pybabel extract -F babel.cfg -o messages.pot .
```

- To get the new translations added to the .po files:

```
pybabel update -i messages.pot -d application/translations
```

## 1.6 Flicket - FAQ

### 1.6.1 What is Flicket?

Flicket is a simple open source ticketing system driven by the python flask web micro framework.

Flicket also uses the following python packages:

alembic, bcrypt, flask-admin, flask-babel, flask-login, flask-migrate, flask-principal, flask-sqlalchemy,  
flask-script, flask-wtf, jinja2, Markdown, WTForms

See *README.rst* for full requirements.

## Licensing

For licensing see *LICENSE.md*

### 1.6.2 Tickets

#### General

1. How do I create a ticket?

Select 'create ticket' from the Flicket pull down menu.

2. How do I assign a ticket?

Scenario: You have raised a ticket and you know to whom the ticket should be assigned.

Navigate to [flicket home page](/flicket/) and select the ticket you wish to assign. Within the ticket page is a button to *assign* ticket.

3. How do I release a ticket?

Scenario: You have been assigned a ticket but the ticket isn't your responsibility to complete or you are unable to for another reason.

Navigate to [flicket home page](/flicket/) and select the ticket to which you have been assigned. Within the ticket page is a button to *release* the ticket from your ticket list.

4. How do I close a ticket?

Scenario: The ticket has been resolved to your satisfaction and you want to close the ticket.

Navigate to [flicket home page](/flicket/) and select the ticket which you would like to close. Within the ticket page is a button to *replay and close* the ticket.

Only the following persons can close a ticket: \* Administrators. \* The user which has been assigned the ticket.  
\* The original creator of the ticket.

You may *claim* the ticket so that you may close it.

#### 5. What is markdown?

Markdown is a lightweight markup language with plain text formatting syntax.

The text contents of a ticket can be made easier to read by employing markdown syntax.

## Searching

The ticket main page can be filtered to show only results of a specific interest to you. Tickets can be filtered by department, category, user and a text string.

## Departments

---

**Note:** Only administrators or super users can add / edit or delete departments.

---

#### 1. How do I add new departments?

Navigate to Departments via the menu bar and use the add departments form.

#### 2. How do I edit departments?

Navigate to [departments](/flicket/departments/) and select the edit link against the department name.

#### 3. How do I delete departments?

Navigate to [departments](/flicket/departments/) and select the remove link against the department name. This is represented with a cross.

## Categories

---

**Note:** Only administrators or super users can add / edit or delete categories.

---

#### 1. How do I add categories?

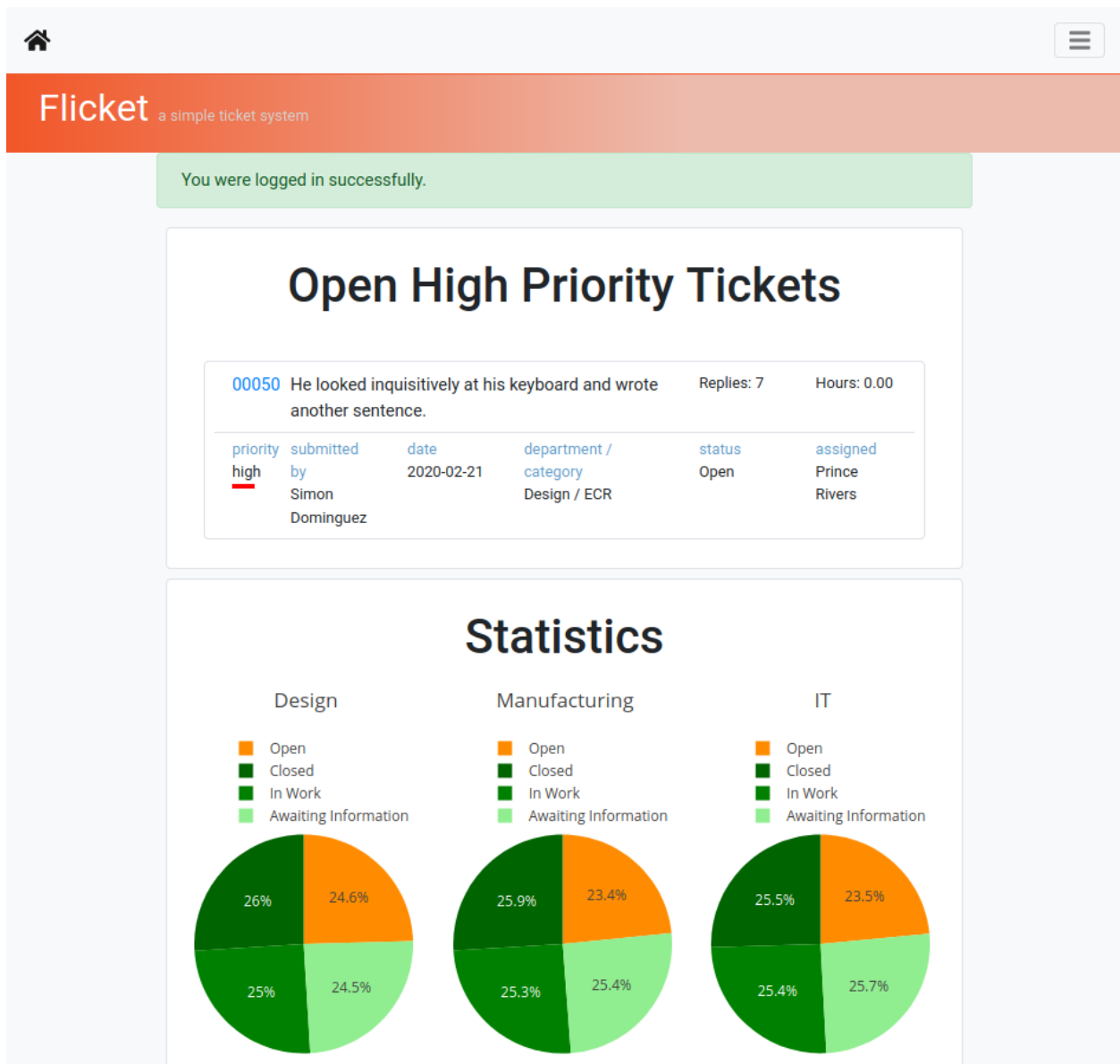
Navigate to [departments](/flicket/departments/) and select the link to add categories against the appropriate department name.

#### 1. How do I edit categories?

Navigate to [departments](/flicket/departments/) and select the link to add categories against the appropriate department name.

## 1.7 Screenshots

### 1.7.1 Home Page



## 1.7.2 Tickets

All tickets.


[My Tickets](#)
[Tickets](#)
[Create Ticket](#)
[Departments](#)
[Users](#)
[Admin View](#)
admin

**Flicket** a simple ticket system

# Tickets

Download results as a csv file .

--departments--
--categories--
--status--

<< 1 2 3 4 5 ... 148 149 >>
Sort

|                         |                                                                               |                       |                       |                                                          |                                |                            |
|-------------------------|-------------------------------------------------------------------------------|-----------------------|-----------------------|----------------------------------------------------------|--------------------------------|----------------------------|
| 00001                   | It is also a garbage-collected runtime system.                                |                       |                       |                                                          | Replies: 14                    | Hours: 0.00                |
| priority<br><u>high</u> | submitted by<br>Serita Kane                                                   | created<br>2020-02-21 | updated<br>2016-11-21 | department / category<br>Manufacturing / Equipment       | status<br>In Work              | assigned<br>Albert Sanford |
| 00002                   | The syntax {D1,D2,...,Dn} denotes a tuple whose arguments are D1, D2, ... Dn. |                       |                       |                                                          | Replies: 11                    | Hours: 0.00                |
| priority<br>low         | submitted by<br>Emmy Koch                                                     | created<br>2020-02-21 | updated<br>2016-11-21 | department / category<br>IT / Intranet                   | status<br>Awaiting Information | assigned<br>Lane Banks     |
| 00003                   | Erlang is known for its designs that are well suited for systems.             |                       |                       |                                                          | Replies: 2                     | Hours: 0.00                |
| priority<br><u>high</u> | submitted by<br>Delmar Cochran                                                | created<br>2020-02-21 | updated<br>2016-11-21 | department / category<br>Commercial / Approved Suppliers | status<br>In Work              | assigned<br>Gwyneth Frye   |
| 00004                   | Atoms are used within a program to denote distinguished values.               |                       |                       |                                                          | Replies: 7                     | Hours: 0.00                |
| priority<br>low         | submitted by<br>Lonny Avery                                                   | created<br>2020-02-21 | updated<br>2016-11-21 | department / category<br>IT / Intranet                   | status<br>In Work              | assigned<br>Janeth Lawson  |
| 00005                   | It is also a garbage-collected runtime system.                                |                       |                       |                                                          | Replies: 12                    | Hours: 0.00                |

## 1.7.3 View Ticket

[My Tickets](#)
[Tickets](#)
[Create Ticket](#)
[Departments](#)
[Users](#)
[Admin View](#)
admin ▾

**Flicket**
a simple ticket system

|               |                                                |         |          |                |             |                         |
|---------------|------------------------------------------------|---------|----------|----------------|-------------|-------------------------|
| 00001         | It is also a garbage-collected runtime system. |         |          |                |             | <a href="#">claim</a>   |
| Department    | Category                                       | Status  | Priority | Assigned       | Total Hours | <a href="#">release</a> |
| Manufacturing | Equipment                                      | In Work | high     | Albert Sanford | 0.00        | <a href="#">assign</a>  |

Subscribed:
[subscribe user](#)

<< 1 >>

Serita Kane

21-02-2020 16:39

Atoms are used within a program to denote distinguished values. The arguments can be primitive data types or compound data types. Haskell features a type system with type inference and lazy evaluation. Ports are created with the built-in function open\_port. The sequential subset of Erlang supports eager evaluation, single assignment, and dynamic typing.

Hours: 0.00
[quote](#)

Edris Snyder

Reply #1 | 21-02-2020 16:39

She spent her earliest years reading classic literature, and writing poetry. He looked inquisitively at his keyboard and wrote another sentence. Tuples are containers for a fixed number of Erlang data types. He looked inquisitively at his keyboard and wrote another sentence. Ports are created with the built-in function open\_port.

Hours: 0.00
[quote](#)

Mac Weaver

Reply #2 | 21-02-2020 16:39

Type classes first appeared in the Haskell programming language. Erlang is known for its designs that are well suited for systems. Do you come here often? Haskell is a standardized, general-purpose purely functional programming language, with non-strict semantics and strong static typing. Haskell is a standardized, general-purpose purely functional programming language, with non-strict semantics and strong static typing.

## 1.7.4 Create Ticket

Flicket - Create Ticket - Mozilla Firefox

Flicket - Create Ticket | Samanage Bot says... | +

https://flicket.evereux.uk/ticket\_create/

My Tickets | Tickets | Create Ticket | Departments | Users | FAQ | Admin View | admin

# Flicket

a simple ticket system

## Flicket - Create Ticket

Ticket contents supports markdown syntax. Please refer to [md help](#).

**Ticket Title**

**Content**

# Please help.

I can't log in. Computer says

invalid username or password

Please help.

I can't log in. Computer says

invalid username or password

[MarkDown reference](#) [Show / Hide Markdown](#)

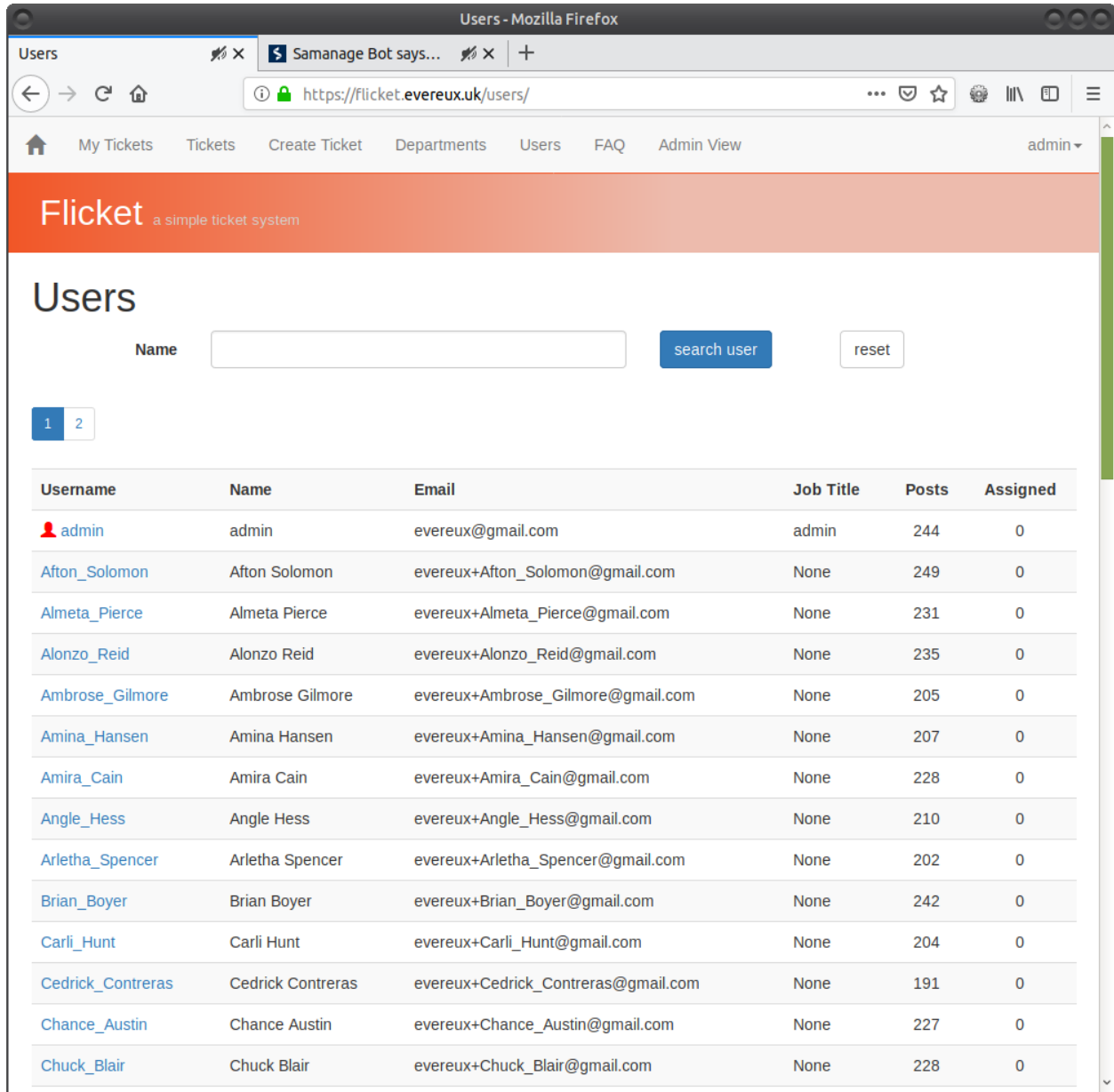
**Priority Level**

**Category**

**Upload Documents**  No files selected.

Flicket 0.1.8 © 2018 [Paul Bourne](#) | Source code available at: [Github](#) | This site uses: [Glyphicons](#).

## 1.7.5 Users



The screenshot shows the 'Users' page of the Flicket application. The browser window title is 'Users - Mozilla Firefox'. The address bar shows 'https://flicket.evereux.uk/users/'. The page has a navigation bar with links: My Tickets, Tickets, Create Ticket, Departments, Users, FAQ, and Admin View. The user 'admin' is logged in, as indicated by the 'admin' dropdown in the top right. The main heading is 'Flicket a simple ticket system'. Below this is the 'Users' section, which includes a search bar with the label 'Name' and a 'search user' button, and a 'reset' button. The search bar contains the text 'Name'. Below the search bar are two tabs, '1' and '2', with '1' selected. The main content is a table of users.

| Username                                                                                | Name              | Email                               | Job Title | Posts | Assigned |
|-----------------------------------------------------------------------------------------|-------------------|-------------------------------------|-----------|-------|----------|
|  admin | admin             | evereux@gmail.com                   | admin     | 244   | 0        |
| Afton_Solomon                                                                           | Afton Solomon     | evereux+Afton_Solomon@gmail.com     | None      | 249   | 0        |
| Almeta_Pierce                                                                           | Almeta Pierce     | evereux+Almeta_Pierce@gmail.com     | None      | 231   | 0        |
| Alonzo_Reid                                                                             | Alonzo Reid       | evereux+Alonzo_Reid@gmail.com       | None      | 235   | 0        |
| Ambrose_Gilmore                                                                         | Ambrose Gilmore   | evereux+Ambrose_Gilmore@gmail.com   | None      | 205   | 0        |
| Amina_Hansen                                                                            | Amina Hansen      | evereux+Amina_Hansen@gmail.com      | None      | 207   | 0        |
| Amira_Cain                                                                              | Amira Cain        | evereux+Amira_Cain@gmail.com        | None      | 228   | 0        |
| Angle_Hess                                                                              | Angle Hess        | evereux+Angle_Hess@gmail.com        | None      | 210   | 0        |
| Arletha_Spencer                                                                         | Arletha Spencer   | evereux+Arletha_Spencer@gmail.com   | None      | 202   | 0        |
| Brian_Boyer                                                                             | Brian Boyer       | evereux+Brian_Boyer@gmail.com       | None      | 242   | 0        |
| Carli_Hunt                                                                              | Carli Hunt        | evereux+Carli_Hunt@gmail.com        | None      | 204   | 0        |
| Cedrick_Contreras                                                                       | Cedrick Contreras | evereux+Cedrick_Contreras@gmail.com | None      | 191   | 0        |
| Chance_Austin                                                                           | Chance Austin     | evereux+Chance_Austin@gmail.com     | None      | 227   | 0        |
| Chuck_Blair                                                                             | Chuck Blair       | evereux+Chuck_Blair@gmail.com       | None      | 228   | 0        |

## 1.7.6 Admin Panel

The screenshot shows the Flicket Admin Panel. At the top is a navigation bar with links: My Tickets, Tickets, Create Ticket, Departments, Users, FAQ, and Admin View. The user is logged in as 'admin'. Below the navigation bar is a header with the Flicket logo and the tagline 'a simple ticket system'. The main content area is titled 'Administration' and contains a sub-navigation bar with links: Admin Home, Flicket Config, Users, Add User, and Groups. Below this, the 'Admin' section is displayed with the text 'Administration home page.'.

Flicket 0.1.8 © 2018 Paul Bourne | Source code available at: [Github](#) | This site uses: [Glyphicons](#).

## 1.7.7 Admin Panel - Add User

The screenshot shows the Flicket Admin Panel 'Add User' form. The navigation bar and header are the same as in the previous screenshot. The 'Administration' sub-navigation bar is also present. The main content area is titled 'Add User' and contains a form with the following fields: Username, Name, Email, Job Title, Locale (a dropdown menu set to 'English'), Password (masked with dots), and Confirm (labeled 'repeat password'). A blue 'add\_user' button is located at the bottom of the form.

Flicket 0.1.8 © 2018 Paul Bourne | Source code available at: [Github](#) | This site uses: [Glyphicons](#).

## 1.7.8 Admin Panel - Configuration

[Home](#) [My Tickets](#) [Tickets](#) [Create Ticket](#) [Departments](#) [Users](#) [FAQ](#) [Admin View](#) admin ▾

**Flicket** a simple ticket system

### Administration - Configuration

[Admin Home](#) [Flicket Config](#) [Users](#) [Add User](#) [Groups](#)

| Field                  | Value                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------|
| mail_server            | <input type="text"/>                                                                       |
| mail_port              | <input type="text"/>                                                                       |
| mail_use_tls           | <input type="checkbox"/>                                                                   |
| mail_use_ssl           | <input type="checkbox"/>                                                                   |
| mail_debug             | <input checked="" type="checkbox"/>                                                        |
| mail_username          | <input type="text" value="admin"/>                                                         |
| mail_password          | <input type="password" value="....."/>                                                     |
| mail_default_sender    | <input type="text"/>                                                                       |
| mail_max_emails        | <input type="text"/>                                                                       |
| mail_suppress_send     | <input checked="" type="checkbox"/>                                                        |
| mail_ascii_attachments | <input type="checkbox"/>                                                                   |
| posts_per_page         | <input type="text" value="50"/>                                                            |
| allowed_extensions     | <input type="text" value="txt, pdf, png, jpg, jpeg"/> This must be a comma delimited list. |
| default_email_folder   | <input type="text"/>                                                                       |

## 1.8 API

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