CTFサーバを立てる

CTFdを起動する



発表者: xryuseix

- CTFサーバ立てたくないですか???????????
- じゃあ立てましょう, 簡単です
- <u>◆ (時間がなかったので内容が薄いです)</u>



ctfd













⊘ ショッピング 国 ニュース : もっと見る

設定

ツール

約 1,250,000 件 (0.37 秒)

github.com > CTFd > CTFd ▼ このページを訳す

CTFd/CTFd: CTFs as you need them - GitHub

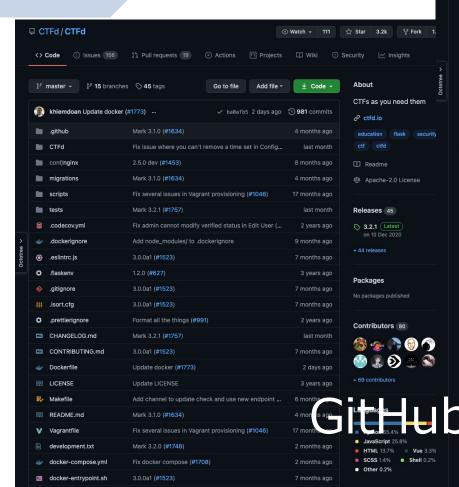


What is CTFd? CTFd is a Capture The Flag framework focusing on ease of use and customizability. It comes with everything you need to run a CTF and it's easy to customize with plugins and themes. CTFd is a CTF in a can.

CTFd · Docker-compose.yml · CTFd/requirements.txt at... ·

CHANGELOG.md

21/01/15 にこのページにアクセスしました。



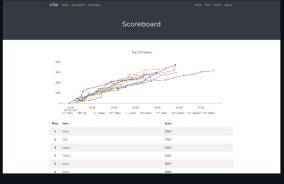
README.md





What is CTFd?

CTFd is a Capture The Flag framework focusing on ease of use and customizability. It comes with everything you need to run a CTF and it's easy to customize with plugins and themes.



Features

- Create your own challenges, categories, hints, and flags from the Admin Interface
 - o Dynamic Scoring Challenges
- Unlockable challenge support
- $\circ\,\,$ Challenge plugin architecture to create your own custom challenges
- Static & Regex based flagsCustom flag plugins
- Unlockable hints
- File uploads to the server or an Amazon S3-compatible backend
- Limit challenge attempts & hide challenges
- Automatic bruteforce protection

```
🍅 🦫 ~/ Desktop
 git clone https://github.com/CTFd/CTFd
Cloning into 'CTFd'...
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (10/10), done.
remote: Total 12767 (delta 3), reused 2 (delta 0), pack-reused 12757
Receiving objects: 100% (12767/12767), 21.86 MiB | 2.57 MiB/s, done.
Resolving deltas: 100% (8122/8122), done.
```

ダウンロード

- dockerを頑張って入れましょう
- M1 Macの人はDocker公式Slackに入るとベータ版のURLがもらえます(動く)

```
) docker-compose up
Creating network "ctfd_internal" with the default driver
Creating network "ctfd_default" with the default driver
Pulling db (mariadb:10.4.12)...
10.4.12: Pulling from library/mariadb
c2cd007b69f7: Pull complete
3c087f8bf83d: Pull complete
474b5c43e9a2: Pull complete
7083e6591d76: Pull complete
340e908aa186: Pull complete
51f46da80a1e: Pull complete
9374369ce522: Pull complete
e65d1839f1c9: Pull complete
38ac11fc4bc1: Extracting [===================================] 920.8kB/920.8kB
d5cf075dcf71: Download complete
6ae2bb00ba7e: Download complete
1125cdfe2de9: Downloading [>
                                                                                537.3kB/78.69MB
6a6db6a004b5: Download complete
d1e1731681d0: Waiting
```

```
Unpacking libldap-common (2.4.47+dfsg-3+deb10u4) ...
                                                                                                                Selecting previously unselected package libldap-2.4-2:arm64.
                                                                                                                Preparing to unpack .../55-libldap-2.4-2_2.4.47+dfsg-3+deb10u4_arm64.deb ...
                                                                                                                Unpacking libldap-2.4-2:arm64 (2.4.47+dfsg-3+deb10u4) ...
  libgpm2 publicsuffix libsasl2-modules libdbd-mysgl-perl libdbi-perl
                                                                                                                Selecting previously unselected package libnghttp2-14:arm64.
  libterm-readkey-perl file
                                                                                                                Preparing to unpack .../56-libnghttp2-14_1.36.0-2+deb10u1_arm64.deb ...
The following NEW packages will be installed:
                                                                                                                Unpacking libnghttp2-14:arm64 (1.36.0-2+deb10u1) ...
  binutils binutils-aarch64-linux-gnu binutils-common build-essential bzip2
                                                                                                                Selecting previously unselected package libpsl5:arm64.
  cpp cpp-8 default-mysql-client dh-python dpkg-dev g++ g++-8 gcc gcc-8 git
                                                                                                                Preparing to unpack .../57-libpsl5_0.20.2-2_arm64.deb ...
  git-man libaiol libasan5 libatomic1 libbinutils libc-dev-bin libc6-dev
  libcc1-0 libconfig-inifiles-perl libcurl3-gnutls libdpkg-perl liberror-perl
                                                                                                                Unpacking libpsl5:arm64 (0.20.2-2) ...
  libexpat1-dev libffi-dev libgcc-8-dev libgdbm-compat4 libgomp1
                                                                                                                Selecting previously unselected package librtmp1:arm64.
  libgssapi-krb5-2 libisl19 libitm1 libk5crypto3 libkeyutils1 libkrb5-3
                                                                                                                Preparing to unpack .../58-librtmp1_2.4+20151223.gitfa8646d.1-2_arm64.deb ...
  libkrb5support0 libldap-2.4-2 libldap-common liblsan0 libmpc3 libmpdec2
                                                                                                                Unpacking librtmp1:arm64 (2.4+20151223.gitfa8646d.1-2) ...
  libmpfr6 libncurses6 libnghttp2-14 libpcre2-8-0 libperl5.28 libpsl5
  libpython3-dev libpython3-stdlib libpython3.7 libpython3.7-dev
                                                                                                                Selecting previously unselected package libssh2-1:arm64.
  libpython3.7-minimal libpython3.7-stdlib libreadline5 librtmp1 libsasl2-2
                                                                                                                Preparing to unpack .../59-libssh2-1_1.8.0-2.1_arm64.deb ...
  libsasl2-modules-db libsnappy1v5 libssh2-1 libssl-dev libstdc++-8-dev
                                                                                                                Unpacking libssh2-1:arm64 (1.8.0-2.1) ...
  libtsan0 libubsan1 linux-libc-dev make mariadb-client-10.3
                                                                                                                Selecting previously unselected package libcurl3-gnutls:arm64.
  mariadb-client-core-10.3 mariadb-common mime-support mysql-common patch perl
                                                                                                                Preparing to unpack .../60-libcurl3-gnutls_7.64.0-4+deb10u1_arm64.deb ...
  perl-modules-5.28 python3 python3-dev python3-distutils python3-lib2to3
                                                                                                                Unpacking libcurl3-gnutls:arm64 (7.64.0-4+deb10u1) ...
  python3-minimal python3.7 python3.7-dev python3.7-minimal xz-utils
0 upgraded, 85 newly installed, 0 to remove and 0 not upgraded.
                                                                                                                Selecting previously unselected package libpcre2-8-0:arm64.
Need to get 74.3 MB of archives.
                                                                                                                Preparing to unpack .../61-libpcre2-8-0_10.32-5_arm64.deb ...
After this operation, 354 MB of additional disk space will be used.
                                                                                                                Unpacking libpcre2-8-0:arm64 (10.32-5) ...
Get:1 http://deb.debian.org/debian buster/main arm64 perl-modules-5.28 all 5.28.1-6+deb10u1 [2873 kB]
                                                                                                                Selecting previously unselected package liberror-perl.
Get:2 http://security.debian.org/debian-security buster/updates/main arm64 libssl-dev arm64 1.1.1d-0+deb10u4 [1686 kB]
Get:3 http://deb.debian.org/debian buster/main arm64 libgdbm-compat4 arm64 1.18.1-4 [44.0 kB]
                                                                                                                Preparing to unpack .../62-liberror-perl_0.17027-2_all.deb ...
Get:4 http://deb.debian.org/debian buster/main arm64 libperl5.28 arm64 5.28.1-6+deb10u1 [3727 kB]
                                                                                                                Unpacking liberror-perl (0.17027-2) ...
Get:5 http://deb.debian.org/debian buster/main arm64 perl arm64 5.28.1-6+deb10u1 [204 kB]
                                                                                                                Selecting previously unselected package git-man.
Get:6 http://deb.debian.org/debian buster/main arm64 libpython3.7-minimal arm64 3.7.3-2+deb10u2 [588 kB]
                                                                                                                Preparing to unpack .../63-git-man_1%3a2.20.1-2+deb10u3_all.deb ...
Get:7 http://deb.debian.org/debian buster/main arm64 python3.7-minimal arm64 3.7.3-2+deb10u2 [1404 kB]
Get:8 http://deb.debian.org/debian buster/main arm64 python3-minimal arm64 3.7.3-1 [36.6 kB]
                                                                                                                Unpacking git-man (1:2.20.1-2+deb10u3) ...
Get:9 http://deb.debian.org/debian buster/main arm64 mime-support all 3.62 [37.2 kB]
                                                                                                                Selecting previously unselected package git.
Get:10 http://deb.debian.org/debian buster/main arm64 libmpdec2 arm64 2.4.2-2 [77.7 kB]
                                                                                                                Preparing to unpack .../64-git_1%3a2.20.1-2+deb10u3_arm64.deb ...
Get:11 http://deb.debian.org/debian buster/main arm64 libpython3.7-stdlib arm64<u>3.7.3-2+deb10u2 [1641 kB]</u>
                                                                                                                Unpacking git (1:2.20.1-2+deb10u3) ...
Get:12 http://deb.debian.org/debian buster/main arm64 python3.7 arm64 3.7.3-2+deb10u2 [330 kB]
                                                                                                                Selecting previously unselected package libexpat1-dev:arm64.
Get:13 http://deb.debian.org/debian buster/main arm64 libpython3-stdlib arm64 3.7.3-1 [20.0 kB]
Get:14 http://deb.debian.org/debian buster/main arm64 python3 arm64 3.7.3-1 [61.5 kB]
                                                                                                                Preparing to unpack .../65-libexpat1-dev_2.2.6-2+deb10u1_arm64.deb ...
Get:15 http://deb.debian.org/debian buster/main arm64 bzip2 arm64 1.0.6-9.2-deb10u1 [47.7 kB]
                                                                                                                Unpacking libexpat1-dev:arm64 (2.2.6-2+deb10u1) ...
Get:16 http://deb.debian.org/debian buster/main arm64 xz-utils arm64 5.2.4-1 [182 kB]
                                                                                                                Selecting previously unselected package libffi-dev:arm64.
Get:17 http://deb.debian.org/debian buster/main arm64 binutils-common arm64 2.31.1-16 [2073 kB]
                                                                                                                Preparing to unpack .../66-libffi-dev_3.2.1-9_arm64.deb ...
Get:18 http://deb.debian.org/debian buster/main arm64 libbinutils arm64 2.31.1-16 [455 kB]
Get:19 http://deb.debian.org/debian buster/main arm64 binutils-aarch64-linux-gnu arm64 2.31.1-16 [2129 kB]
                                                                                                                Unpacking libffi-dev:arm64 (3.2.1-9) ...
Get:20 http://deb.debian.org/debian buster/main arm64 binutils arm64 2.31.1-16 [56.7 kB]
                                                                                                                Selecting previously unselected package libpython3.7:arm64.
Get:21 http://deb.debian.org/debian_buster/main_arm64 libc-dev-bin_arm64_2.28-10 [270 kB]
                                                                                                                Preparing to unpack .../67-libpython3.7_3.7.3-2+deb10u2_arm64.deb ...
Get:22 http://deb.debian.org/debian buster/main arm64 linux-libc-dev arm64 4.19.160-2 [1396 kB]
                                                                                                                Unpacking libpython3.7:arm64 (3.7.3-2+deb10u2) ...
Get:23 http://deb.debian.org/debian buster/main arm64 libc6-dev arm64 2.28-10 [2324 kB]
                                                                                                                Selecting previously unselected package libpython3.7-dev:arm64.
Get:24 http://deb.debian.org/debian buster/main arm64 libisl19 arm64 0.20-2 [535 kB]
Get:25 http://deb.debian.org/debian buster/main arm64 libmpfr6 arm64 4.0.2-1 [746 kB]
                                                                                                                Preparing to unpack .../68-libpython3.7-dev_3.7.3-2+deb10u2_arm64.deb ...
Get:26 http://deb.debian.org/debian buster/main arm64 libmpc3 arm64 1.1.0-1 [38.0 kB]
                                                                                                                Unpacking libpython3.7-dev:arm64 (3.7.3-2+deb10u2) ...
Get:27 http://deb.debian.org/debian buster/main arm64 cpp-8 arm64 8.3.0-6 [7490 kB]
                                                                                                                Selecting previously unselected package libpython3-dev:arm64.
Get:28 http://deb.debian.org/debian buster/main arm64 cpp arm64 4:8.3.0-1 [19.4 kB]
                                                                                                                Preparing to unpack .../69-libpython3-dev_3.7.3-1_arm64.deb ...
Get:29 http://deb.debian.org/debian buster/main arm64 libcc1-0 arm64 8.3.0-6 [45.0 kB]
Get:30 http://deb.debian.org/debian buster/main arm64 libgomp1 arm64 8.3.0-6 [67.8 kB]
                                                                                                                Unpacking libpython3-dev:arm64 (3.7.3-1) ...
Get:31 http://deb.debian.org/debian buster/main arm64 libitm1 arm64 8.3.0-6 [24.0 kB]
                                                                                                                Selecting previously unselected package libssl-dev:arm64.
Get:32 http://deb.debian.org/debian buster/main arm64 libatomic1 arm64 8.3.0-6 [8820 B]
                                                                                                                Preparing to unpack .../70-libssl-dev_1.1.1d-0+deb10u4_arm64.deb ...
Get:33 http://deb.debian.org/debian buster/main arm64 \lambda ibasan5 arm 8.3.0-6 [327 B]
                                                                                                                Unpacking libss -dev:a-m64 (1.4.1d-6 deb
Get:34 http://deb.debian.org/debian buster/max
                                                                                                                         g previously inselected pack go with
Get:35 http://deb.debian.org/debian buster/mai arm64
Get:36 http://deb.debian.org/debian buster/maj arm64
Get:37 http://deb.debian.org/debian buster/m/n
                                            m64
Get:38 http://deb.debian.org/debian buster/main
                                                                                                                Selecting procesusly unselected pace
Get:39 http://deb.debian.org/debian buster/main arm64 gcc arm64 4:8.3.0-1 [5212 B]
                                                                                                                Preparing to unpack .../72-python3-dev_3.7.3-1_arm64.deb ...
Get:40 http://deb.debian.org/debian buster/main arm64 libstdc++-8-dev arm64 8.3.0-6 [1502 kB]
Get:41 http://deb.debian.org/debian buster/main arm64 g++-8 arm64 8.3.0-6 [8176 kB]
                                                                                                                Unpacking python3-dev (3.7.3-1) ...
```

Unpacking tibsast2-modules-db:arm64 (2.1.27+dfsg-1+deb10u1) ... Selecting previously unselected package libsast2-2:arm64.

Unpacking libsasl2-2:arm64 (2.1.27+dfsg-1+deb10u1) ... Selecting previously unselected package libldap-common.

Setting up perl-modules-5.28 (5.28.1-6+deb10u1) ...

Preparing to unpack .../53-libsasl2-2_2.1.27+dfsg-1+deb10u1_arm64.deb ...

Preparing to unpack .../54-libldap-common_2.4.47+dfsg-3+deb10u4_all.deb ...

e: 1

```
Downloading lxml-4.5.1.tar.gz (4.5 MB)

ERROR: Command errored out with exit status 1:

command: /usr/local/bin/python -c 'import sys, setuptools, tokenize; sys.argv[0] = '"""/tmp/pip-install-7pobqzk5/lxml_cca34014b29
149f4b6e56c558ee8a132/setup.py'"""; __file__='"""/tmp/pip-install-7pobqzk5/lxml_cca34014b29149f4b6e56c558ee8a132/setup.py'""";f=geta
ttr(tokenize, '"""open'"", open)(__file__);code=f.read().replace('"""\r\n'""", '"""\\n'""");f.close();exec(compile(code, __file__
, '"""exec'"""))' egg_info --egg-base /tmp/pip-pip-egg-info-gku4lzym

cwd: /tmp/pip-install-7pobqzk5/lxml_cca34014b29149f4b6e56c558ee8a132/
Complete output (3 lines):
Building lxml version 4.5.1.
Building without Cython.
Error: Please make sure the libxml2 and libxslt development packages are installed.

ERROR: Command errored out with exit status 1: python setup.py egg_info Check the logs for full command output.
```

ERROR: Service 'ctfd' failed to build: The command '/bin/sh -c pip install -r requirements.txt --no-cache-dir' returned a non-zero cod

なんかエラー出る

alpine に lxml をインストールした docker を構築する

alpine に lxml をインストールしようとするとこんなエラーが出る。

結論としては Dockerfile を次のようにしてインストールできた。

```
FROM python:3-alpine
RUN apk --no-cache add gcc libc-dev libxml2-dev libxslt-dev
RUN pip3 install lxml
```

解決策あった 他にもいろいろエラー でた

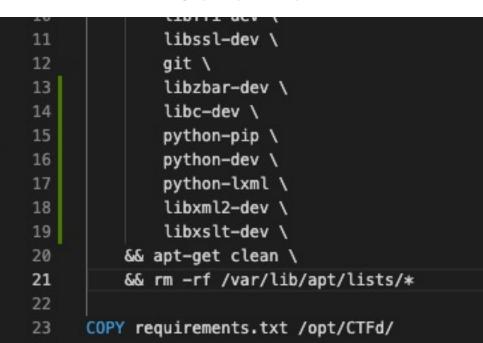
libxml2-dev と libxslt-dev は本家に必要と書いてあった

https://lxml.de/installation.html

また g++ と gcc をインストールしてたが、こちらの stackoverflow によるとlibc-dev と gcc でよさそう

https://stackoverflow.com/questions/35931579/how-can-i-install-lxml-in-docker

Dockerfile



docker_compose.yml

```
- "8000:8000"
 environment:

    SECRET_KEY=RYUSEINOCTFSITE

    UPLOAD_FOLDER=/var/uploads

    DATABASE_URL=mysql+pymysql://ctfd:ctfd@db/ctfd

   - REDIS_URL=redis://cache:6379
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    MYSQL_PASSWORD=ctfd

    MYSQL_DATABASE=ctfd

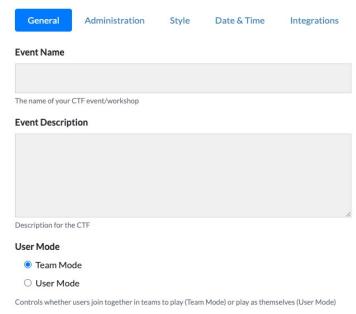
          volumes:
19
            - .data/mysql:/var/lib/mariadb
          networks:
50
               internal:
            This command is required to set impo
```

```
tribution
ctfd_1
                     .....db is ready
           INFO [alembic.runtime.migration] Context impl MySQLImpl.
ctfd_1
ctfd_1
           INFO [alembic.runtime.migration] Will assume non-transactional DDL.
ctfd_1
           /usr/local/lib/python3.7/site-packages/pymysql/cursors.py:170: Warning: (1280, "Name 'alembic_version_pkc' ignored for PRIMA
RY key.")
ctfd_1
             result = self._query(query)
ctfd 1
                 [alembic.runtime.migration] Running upgrade -> 8369118943a1, Initial Revision
ctfd_1
                 [alembic.runtime.migration] Running upgrade 8369118943a1 -> 4e4d5a9ea000, Add type to awards
           INFO
ctfd_1
                 [alembic.runtime.migration] Running upgrade 4e4d5a9ea000 -> b5551cd26764, Add captain column to Teams
           INFO
ctfd 1
           INFO
                 [alembic.runtime.migration] Running upgrade b5551cd26764 -> b295b033364d, Add ondelete cascade to foreign keys
ctfd 1
           INFO
                 [alembic.runtime.migration] Running upgrade b295b033364d -> 080d29b15cd3, Add Tokens table to store user access tokens
ctfd_1
                 [alembic.runtime.migration] Running upgrade 080d29b15cd3 -> a03403986a32, add theme code injections to configs
           INFO
ctfd_1
                 [alembic.runtime.migration] Running upgrade a03403986a32 -> 1093835a1051, Add default email templates
           INFO
ctfd 1
           INFO
                 [alembic.runtime.migration] Running upgrade 1093835a1051 -> 0366ba6575ca, Add table for comments
ctfd_1
                 [alembic.runtime.migration] Running upgrade 0366ba6575ca -> 75e8ab9a0014, Add Fields and FieldEntries tables
           INFO
ctfd_1
           INFO [alembic.runtime.migration] Context impl MySQLImpl.
ctfd_1
           INFO [alembic.runtime.migration] Will assume non-transactional DDL.
ctfd_1
           * Loaded module, <module 'CTFd.plugins.challenges' from '/opt/CTFd/CTFd/plugins/challenges/__init__.py'>
ctfd_1
           * Loaded module, <module 'CTFd.plugins.dynamic_challenges' from '/opt/CTFd/CTFd/plugins/dynamic_challenges/__init__.py'>
ctfd_1
           * Loaded module, <module 'CTFd.plugins.flags' from '/opt/CTFd/CTFd/plugins/flags/__init__.py'>
ctfd_1
           INFO [alembic.runtime.migration] Context impl MySQLImpl.
          INFO [alembic.runtime.migration] Will assume non-transactional DD 上直加中に見えるが
Starting CTFd
[2021-01-16 15:07:23 +0000] [1] [INFO] Starting gunicorn 20.0.4
ctfd_1
ctfd_1
ctfd_1
ctfd_1
           [2021-01-16 15:07:23 +0000] [1] [INFO] Listening at: http://0.0.0.0:8000 (1)
          [2021-01-16 15:07:23 +0000] [1] [INFO] Using worker: gevent
[2021-01-16 15:07:23 +0000] [379] [INFO] Booting worker with pid: ]
ctfd_1
ctfd_1
ctfd_1
           INFO [alembic.runtime.migration] Context impl MySQLImpl.
ctfd_1
           INFO [alembic.runtime.migration] Will assume non-transactional DDL.
ctfd 1
           INFO [alembic.runtime.migration] Context impl MySQLImpl.
ctfd_1
           INFO [alembic.runtime.migration] Will assume non-transactional DDL.
ctfd_1
           * Loaded module, <module 'CTFd.plugins.challenges' from '/opt/CTFd/CTFd/plugins/challenges/__init__.py'>
            * Loaded module, <module 'CTFd.plugins.dynamic_challenges' from '/opt/CTFd/CTFd/plugins/dynamic_challenges/__init__.py'>
ctfd 1
            * Loaded module, <module 'CTFd.plugins.flags' from '/opt/CTFd/plugins/flags/__init__.py'>
ctfd_1
ctfd_1
           172.20.0.1 - - [16/Jan/2021:15:25:09 +0000] "GET / HTTP/1.1" 302 219 "-" "Mozilla/5.0 (Macintosh; Intel Mac OS X 11_1_0) App
```

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http://0.0.0.0:8000 にアクセス



Next

heroku.yml 追加

アプリケーションを定義するためマニフェストファイル、 heroku.yml を追加して、Dockerで動作できるように 設定を加えていきます。

Building Docker Images with heroku.yml | Heroku Dev Cen ter

heroku.yml is a new manifest for defining your app. This article is specifically about using heroku.yml to build your Dockerfile.

devcenter.heroku.com 10 users

devcenter.heroku.com

build:

docker:

web: Dockerfile

公開したい 確かこれ追加して git push Heroku master するだけ

お疲れ様でした!



This is a fully functional demo of the CTFd platform.

Everything will reset every 30 minutes.

You can login using one of the following accounts:

admin password

user password

Or you can register a new account

This demo has been outfitted with Plus features such as:

Unlockable Challenges

Programming Challenges

Multiple Choice Questions