OpenEdx Documentation

1 Connecting

1.1 via AWS web console

1. log into AWS account
2. on instances page, in the top right corner there is a `connect` button. Click on it, it gives you access to the the remote server.
3. For most practical purposes this web-console should work fine. Although you will not be able to copy paste commands.

1.2 `ssh`ing into the remote AWS server

1. You can also log into the server without logging into the AWS web console, via ssh. To set up ssh, do an `ssh-keygen -t rsa` on your local pc. This will generate an RSA private key and a public key (ending in a `.pub`)
2. you need to append the content of you public key into the file `$HOME/.ssh/authorized_keys`
3. now you can ssh from terminal of your local machine by `ssh -i path/of/the/private/key ubuntu@the_public_ip`, just ensure that port 22 in your network has not been blocked (which is almost always open in case of your home wifi)

2 How openEdx has been set up

The LMS has been set up at the IP 15.207.54.24 (this address was chosen by AWS). The domain on Porkbun has been set to point to this IP. This IP will not change unless the current EC2 instaexamnce on AWS is terminated.

There are 3 methods of setting up, all of which we have tried.

1. from the AWS marketplace. is the easiest to set up, marketed as "1 click install". Some functionalities are broken though (`files and uploads` section for example, course creator will not able to upload pdfs etc.)
2. installing via `pip` using `pip install tutor[full]==<version>` where `<version>` is what version of OpenEdx you desire, e.g. `13.1.8`, `13.1.11`,

etc. In this case as well, some functionalities were broken. Setting up the theming caused the `Files and upload` section to

3. Finally the method which worked for us was compiling from source. this is the method that we have used. And since we have compiled it ourselves on AWS remote server, this comes with no attached strings and no N-day-free-trial headaches.
    1. Hopefully the sysad will never need to run this again, but the key is to fork the openEdx repo on GitHub (https://github.com/openedx/edx-platform) to your GitHub account and clone it.
    2. `cd` into the `edx-platform` folder
    3. `git checkout` to the latest stable version, in our case it was `open-release/maple.2`
    4. in the `/package.json` the in the value of the key `"@edx/studio-frontend"` remove the `^`
    5. save and commit
    6. remove other docker images
    7. compile this version of openEdx by `tutor images build openedx --build-arg EDX_PLATFORM_REPOSITORY=<URL of your forked repo> --build-arg EDX_PLATFORM_VERSION=<name of the branch which has the above changes>`
    8. then `tutor local quickstart --non-interactive`

2.1 Growing Secondary storage size in AWS

follow this link:

https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/recognize-expanded-volume-linux.html

3 Configuration file(s)

1. after connecting to the remote server, do `tutor config printroot`
2. `cd` into that directory.
3. There you will see a `config.yml` file
4. Modify system parameters in that client (SMTP client, for example)

Other configuration files are `$(tutor local printroot)/env/apps/openedx/config/cms.env.json` and `'$(tutor local printroot)/envapps/openedx/config/lms.env.json` although these files will be wiped clean if you do a `tutor local quickstart`

3.1 Using vim to edit files

vim is a popular terminal based editor (along with emacs and nano). Although the choice of editors is up to the user, using thelatter two has been widely regarded as heretical.

`vim filename`

will edit the file with name `filename`

- if you are not familiar with h/j/k/l navigation, use your arrow keys to move around
- to search, press `/` and then type in the search phrase. Being familiar with regex will help a lot.
- to search, press enter, to go to the next search result press `n`, for the previous result, press Shift + `n`
- Once your cursor is over the character you want to modify/edit, press `i` to enter edit mode and make changes
- to save, press esc, then `: w` then enter
- to quit, press esc, then `: q` then enter
- to force quit without saving, press `: q !` then enter
- to go to the last line, press shift + `g`
- to go the first line, press `g g`

3.2 Creating an Admin user

Access the web user interface at http://yourinstanceaddress:3737. Sign in with user "tutor"and password equal to the instance ID ("i-xxxxxxxxxxxxxxxx") (The password can be changed by running: `webui configure`).Thenrun the following command:

```
local createuser --staff --superuser yourusername [your@email.com](mailto:your@email.com)
```

This creates an Admin user with the email id `your@email.com`

4 Creating and Configuring Course

1. Login using the credentials of admin
2. Open `https://studio.xracademy.courses`
3. Click on New Course and fill in all the details as required
4. Click Create
5. Openedx gives you fine control over which blocks you will like to keep in each of your courses. To do this, after creating acourse, click Settings > Advanced settings.
6. In the field corresponding to `Advanced Module List`, add the modules which you would like to have in your course, in JSONformat. For example, the following is a good starting point, and covers far more modules more than what usually is required.

```
[
    "split_test",
    "library_content",
    "poll",
    "lti",
    "lti-consumer",
```

```
    "wordcloud",
    "ubcpi",
    "scorm",
    "pdf",
    "png",
    "jpg"
]
```

4.1 Creating Certificates

1. Login as admin into Studio and click on the course for which you want to create a certificate
2. Under Settings click Certificates.
3. Click on Create Certificate
4. Fill in the details that will be printed on the certificate.
5. Click Save and Activate the certificate.

Note: Certificates are **not** supported for courses with Audit track.

4.2 Setting up tracks for a course

1. Visit `https://xracademy.courses/admin/`
2. Login with admin credentials
3. Go to course modes and click on Add Course Mode
4. Select the course for which the course track is to be created
5. Enter the required details and click on Save

Note: Since payments has not been set up (as it was not a part of the SRS), we have selected Honor track which generatescertificate without any payments. Audit track anyways doesn't support certificates and all other modes require a minimum paymentof $1.

4.3 Setting up grading scheme

1. With admin/staff member credentials go to the course in Studio and click on Grading under Settings tab
2. Here all criteria such as pass/fail cutoff, weight-age for different components of the course can be set.
3. Click on Save Changes

4.4 Creating a staff member (Teacher)

Having created a course, we want to add a staff member that creates the content and manages a particular course.

1. In the Studio click on the course for which you want to create add a staff member
2. Click Settings and choose Course Team

3. Click on New Team Member and type in the email-id of the user you want to add as staff member
4. Click on Add User

The staff member created can also be given admin permissions in case multiple admins are required by clicking on Add Admin Access.

5 Uploading content

5.1 Uploading a PDF

1. Login to Studio with teacher/admin credentials
2. Go to the course you want to add PDF for
3. Click on Files and uploads under the Content tab
4. Upload a PDF from your computer.
5. Copy the web URL
6. Go back to the course and create a subsection under a section
7. Under the subsection create a unit
8. Click on Advanced and choose LTI
9. Click on edit and paste the LTI link in the link box. Fill all other details as necessary.
10. Click on Save and publish the unit

5.2 Uploading a video

1. Uploading from YouTube

    1. After creating a unit in a subsection, click on Video.
    2. To edit, click on the edit button and paste the URL of the video you want to upload.
    3. Add all other details as required and Save

    Since the link for even unlisted YouTube videos can be obtained by users upon accessing the video on OpenEdx, it isrecommended to host the videos on Vimeo instead and have a Vimeo subscription using which you can ensure that the video getsstreamed only on OpenEdx platform but the users can't view it anywhere else.

2. Uploading a video from Vimeo

    1. Sign in to Vimeo with your account.
    2. Obtain the embed of the video by clicking on the 3 dots of the video tile.
    3. The HTML embed will pop up
    4. Copy it and go back to studio
    5. In the new unit that you create, click on HTML and select IFrame tool
    6. Click on edit

7. Replace the HTML embed with the one that you copied for the video.
8. Click Save and Publish

5.3 Creating an Assessment

1. Click on the Problem component
2. Select the type of problems you want to add from the drop-down list
3. You can set the correct answers for those questions as well
4. Click save and Publish.