

Kolibri User Guide

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Kolibri is an open-source educational platform specially designed to provide offline access to a wide range of quality, openly licensed educational resources in low-resource contexts like rural schools, refugee camps, orphanages, and also in non-formal school programs.

Kolibri can serve high quality education materials from several publicly available channels, collections of educational resources (exercises, videos, audio or document files) and associated metadata, prepared and organized for their use in Kolibri. It works in conjunction with Kolibri Studio¹, the curriculum tool used to organize resources and build custom channels, aligned to the local curricula, or according to specific learning needs.











Fig. 1: Some of the publicly available learning resources that you can use with Kolibri.

¹ https://studio.learningequality.org

Chapter 1

Install Kolibri

See the Kolibri changelog here² to review specific changes in each version of Kolibri. Documentation for previous Kolibri versions are available here³.

Learn about whether Kolibri will run on your server and client devices:

1.1 Hardware requirements

To install **Kolibri** on a device that will act as a server, check the hardware requirements first, and then follow the procedure for the operating system on your device.

Tip: Below you will find general recommendations regarding hardware requirements to run Kolibri. To read more detailed information and find out examples of hardware setups that have been implemented by our users, download the full Kolibri Hardware Guide⁴ and examples of Hardware Configurations for Kolibri⁵ (PDF documents).

1.1.1 Servers

Minimum hardware requirements to run Kolibri as a server:

- RAM: 1 GB recommended on Linux, 2GB or more on Windows devices
- Intel Core 3 CPU with 1 GHz recommended

² https://learningequality.org/r/kolibri-changes

³ https://readthedocs.org/projects/kolibri/

⁴ https://learningequality.org/r/hardware-guide

⁵ https://learningequality.org/r/hardware

1.2 Windows 3

• Hard drive space depends on the size of the channels you intend to import from Kolibri Studio⁶ or a local storage device.

If you have a facility with less than 30 computers, a device as simple as a Raspberry Pi⁷ is known to work fine as a server.

1.1.2 Clients

Very old desktops and very low-power computers can be used as client devices to access Kolibri. For instance, some implementations are known to use first-gen Raspberry Pi as desktop computers.

It is always a good idea to do a practical test, but when you want to implement Kolibri, usually it's not necessary to scale your hardware. The main requirement is that your system needs a video card and driver that can play the videos.

Choose your preferred method of installation:

1.2 Windows

1.2.1 Compatibility

- Supported: Windows 7, 8.1 and 10, with IE 11+, Chrome or Firefox
- **Not supported:** Windows XP cannot be used to install Kolibri server, but could potentially work as a client device if the browsers are as up-to-date as possible⁸.

1.2.2 Install

- 1. Download the Windows installer⁹ for Kolibri version 0.14.
- 2. Double-click the downloaded .exe file.
- 3. Select the language for the installation.
- 4. Python 3 installer is included, confirm the installation or the upgrade to proceed.
- 5. Follow the rest of the instructions in the Kolibri installation setup wizard.
- 6. Once the installation finishes, Kolibri will auto-start and open in the default browser on your computer at http://127.0.0.1:8080. This may take a moment, so please be patient.

⁶ https://studio.learningequality.org/

⁷ https://www.raspberrypi.org/

⁸ https://support.mozilla.org/en-US/questions/1173904

⁹ https://learningequality.org/download/

1.2 Windows 4

7. Proceed with the *Initial Setup* of your facility.

Warning: Windows firewall will prompt you to allow the Python process needed to run Kolibri. Click **Allow access** to accept and proceed.

1.2.3 Uninstall

- 1. Open the Windows Control Panel.
- 2. Select **Programs and Features** option.
- 3. Select Kolibri from the list of programs.
- 4. Click the button Uninstall/Change and follow the instructions.

Tip: To remove all the user data and the downloaded channels, delete the .kolibri folder (go to **Device > Info** to find the exact location of the folder on your system). If you install Kolibri again, you will have to go through the *Initial Setup* steps from the beginning.

1.2.4 Upgrade

Warning: We recommend making sure Kolibri is not running before upgrading.

To upgrade Kolibri, follow these steps.

- 1. Download the new version of Kolibri Windows installer¹⁰.
- 2. Double-click the downloaded .exe file.
- 3. Follow the instructions in the installation wizard window.
- 4. Once the installation of the upgrade is finished, Kolibri will auto-start and open in the default browser on your computer.
- 5. Go explore the new and improved Kolibri features.

¹⁰ https://learningequality.org/download/

1.3 Debian/Ubuntu

1.3.1 Compatibility

Debian 8 (Jessie), Debian 9 (Stretch), Ubuntu 16.04+ and up - anything that's *not* end-of-life. Ubuntu-based distributions have a number of flavors, for instance Xubuntu and Mint.

1.3.2 Install from PPA repository

In Ubuntu-based distributions, use the following commands in Terminal¹¹ to add the PPA and install Kolibri:

```
sudo apt-get install software-properties-common dirmngr
sudo add-apt-repository ppa:learningequality/kolibri
sudo apt-get update
sudo apt-get install kolibri
```

In Debian-based distributions you need to use these commands to point to our Launchpad PPA:

```
sudo apt-get install dirmngr
sudo su -c 'echo "deb http://ppa.launchpad.net/learningequality/kolibri/ubuntu_

bionic main" > /etc/apt/sources.list.d/learningequality-ubuntu-kolibri.list'
sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv-keys_

C5BAA93F9E4AE4F0411F97C74F88ADB3194DD81
sudo apt-get update
sudo apt-get install kolibri
```

1.3.2.1 Uninstall

From the command line: sudo apt-get remove kolibri.

Tip: To remove all the user data and the downloaded channels, delete the ~/.kolibri folder (go to **Device > Info** to find the exact location of the folder on your system). If you install Kolibri again, you will have to go through the *Initial Setup* steps from the

¹¹ https://help.ubuntu.com/community/UsingTheTerminal

beginning.

1.3.2.2 Upgrade

Warning: We recommend making sure Kolibri is not running before upgrading.

When you use the PPA installation method, upgrades to newer versions will be automatic, provided there is internet access available.

1.3.3 Install from a .deb file

The advantages of downloading a .deb file is the portability: you can copy the file from device to device and install Kolibri without internet access.

- 1. Download the latest .deb installer¹² for Kolibri **version 0.14**, or have it copied to your local drive.
- 2. Run this command from the location where you downloaded the DEB file:

```
sudo dpkg -i kolibri-installer-filename.deb
```

3. Wait for the installation to finish and run this command to start Kolibri:

kolibri start

Note: If you choose to install Kolibri as a system service, you will not need to start it manually.

4. When the command finishes, open the default browser at http://127.0.0.1:8080 and proceed with the *Initial Setup* of your facility.

1.3.3.1 Uninstall

- Open **Software** on Ubuntu and locate the Kolibri. Press **Remove**.
- Or from the command line: sudo apt-get remove kolibri.

¹² https://learningequality.org/download/

Tip: To remove all the user data and the downloaded channels, delete the ~/.kolibri folder (go to **Device > Info** to find the exact location of the folder on your system). If you install Kolibri again, you will have to go through the *Initial Setup* steps from the beginning.

1.3.3.2 Upgrade

When you use the PPA installation method, upgrades to newer versions will be automatic, provided there is internet access available.

To upgrade Kolibri on a Debian device without internet access, bring the updated .deb file and follow the same steps as in *Install from a .deb file*.

1.3.4 Changing the owner of Kolibri system service

The *system service* is the script that runs Kolibri in the background when your system boots on Debian-based distributions.

You may need to change the system service to run with the permissions of a different user account. Prior to v0.10, kolibri user account was the owner of the system service, while from v0.10 and later, desktop user's account is preferred, in order for Kolibri to access the local USB storage.

To change the system service owner, you need to change the configuration of the system service, move the .kolibri data folder (containing channels, databases etc.), and assign owner permissions to the new user. Follow these steps.

1. Stop Kolibri.

```
sudo systemctl stop kolibri
```

2. Move data to your desktop user.

```
sudo mv /var/kolibri/.kolibri /home/$USER/.kolibri
```

3. Change ownership.

```
sudo chown -R $USER /home/$USER/.kolibri
```

4. Change the username configuration.

```
sudo sh -c 'sudo echo -n $USER > /etc/kolibri/username'
```

5. Start Kolibri again.

```
sudo systemctl start kolibri
```

Note: Replace the \$USER in commands above with the name of the user you wish to be the new Kolibri system service owner.

1.3.5 Higher Performance with the kolibri-server package

We have of a higher-performance wrapper around the kolibri package for Ubuntu and Debian systems called kolibri-server.

kolibri-server has some specific features like **static content cache** and **optimized usage of the CPU processing power** in multi core devices. For example, a *Raspberry Pi* 3+ device has 4 CPU cores, and with kolibri-server it will likely be able to serve 2-3 times more client devices compared to base Kolibri. Find out more details in the package repository¹³.

To install kolibri-server follow these steps.

1. Run these commands in the Terminal:

```
sudo apt-get install software-properties-common dirmngr
sudo add-apt-repository ppa:learningequality/kolibri
sudo apt-get update
sudo apt-get install kolibri-server
```

During the installation you will be offered the option to choose the port (8000, 80 or leave the default 8080).

2. Restart the system.

Warning: Keep in mind that the kolibri-server system performance will depend not only on server device features, but also on local WiFi access point characteristics.

¹³ https://github.com/learningequality/kolibri-server

1.4 Raspberry Pi 9

1.4 Raspberry Pi

Kolibri is tested to work on Raspberry Pi Models 3, 3+, 4 and Zero W.

Kolibri may also run on Raspberry Pi Model 2, but the platform has not been tested on that model, and it does not have on-board WiFi.

1.4.1 Quick start

If you are starting from a brand new Raspberry Pi and want to get set up as quickly as possible, you can download our custom OS image and flash it to your SD card. Once flashed, you can configure your Pi as usual.

If you already have a Pi running and don't want to erase it, or if you would like to learn more about how to set up the system from scratch, see our *Raspberry Pi Tutorial for Kolibri*.

- 1. Download the Raspberry Pi ZIP file¹⁴ for Kolibri **version 0.14**, or have it copied to your local drive.
- 2. Use any of the methods explained in the official Raspberry Pi user guide¹⁵ to write the image to a SD card.
- 3. Insert the SD card in the Raspberry Pi.
- 4. Power on the Raspberry Pi and wait. The process takes less than 5 minutes in a model 4, but in other models can take longer. You may observe some Failure messages during this process, which is normal.

Warning: After installing the image, an ssh server is installed with the user pi and the password kolibrifly. You should immediately change the password to ensure that your server is secure.

After following the above steps the Raspberry Pi will provide a WiFi network named under the ssid kolibri without any password. The Kolibri server will be accessible at the URL http://10.10.10.10.

By default the server does not have Internet access. To import resources to Kolibri, either connect a USB drive with exported channels, or connect the Pi to an internet-connected router using the ethernet cable.

¹⁴ https://learningequality.org/download/

¹⁵ https://www.raspberrypi.org/documentation/installation/installing-images/README.md

1.5 MacOS 10

Note: The installed system contains a full RPi image, with all the software included in the Lite version from https://www.raspberrypi.org/software/operating-systems/#raspberry-pi-os-32-bit. After login use sudo raspi-config to customize the environment, including localization, timezone, etc. if desired.

Note: When an ethernet cable with Internet access is connected to the Raspberry, it will have internet connectivity but won't provide this connectivity to the devices that are connected to its kolibri ssid. These devices will only be able to use the browser with the Kolibri application at the URL http://10.10.10.

1.4.2 Manual setup

It is not necessary to use the custom OS image. If you already have a running Raspberry Pi set up and want to install Kolibri, or if you prefer to set up manually from an official Pi image, please refer to our *Raspberry Pi Tutorial for Kolibri*.

1.5 MacOS

1.5.1 Compatibility

Kolibri macOS app has been tested on High Sierra (10.13), Mojave (10.14), and Catalina (10.15) macOS releases.

1.5.2 Install

- 1. Download the .dmg installer¹⁶ for Kolibri version 0.14.
- 2. Double-click the downloaded .dmg file.
- 3. Drag the Kolibri logo inside the **Applications** folder, and wait for the installation to finish.
- 4. Open the Kolibri app using the icon in your **Applications** folder or Launchpad.
- 5. Proceed with the *Initial Setup* of Kolibri.

¹⁶ https://learningequality.org/r/kolibri-mac-latest

1.5 MacOS 11



1.5.3 Uninstall

Delete the Kolibri app icon from the **Applications** folder.

Tip: To remove all the user data and the downloaded channels, delete the .kolibri folder (go to **Device > Info** to find the exact location of the folder on your system). If you install Kolibri again, you will have to go through the *Initial Setup* steps from the beginning.

1.5.4 Upgrade

Warning: We recommend making sure Kolibri is not running before upgrading.

- 1. Download the new version of the .dmg installer¹⁷.
- 2. Double-click the downloaded .dmg file.
- 3. Drag the Kolibri logo inside the **Applications** folder, and wait for the upgrade to finish.
- 4. Start the Kolibri app from the **Launchpad**.
- 5. Go explore the new and improved Kolibri features.

¹⁷ https://learningequality.org/download/

1.6 Python 12

1.6 Python

1.6.1 Python package

You can install Kolibri as a standard package from PyPi (works on Mac, Windows, and Linux) using this command:

1. Install for your current user.

```
pip install --user kolibri
```

2. Install system-wide (for all users).

```
sudo pip install kolibri
```

After Kolibri has been installed from PyPi, a new kolibri command should be available in your Terminal application.

1.6.2 Python EXecutable

On MacOS and Linux, follow these steps to run Kolibri with the PEX package.

- 1. Download the PEX installer¹⁸ for Kolibri version **0.14**.
- 2. Make sure to **open the Terminal where you downloaded** the PEX file. For example, if you saved it in the *Downloads* folder, type this when you open the Terminal, and press Enter:

```
cd Downloads
```

3. Type the following commands next (press Enter after each one).

```
chmod +x kolibri-installer-filename.pex
./kolibri-installer-filename.pex start
```

Note: Make sure to **substitute the** kolibri-installer-filename.pex **with the exact name of the file you downloaded** in both commands. For example, if the name of the downloaded file is kolibri-v0.14.0.pex, type that instead of kolibri-installer-filename.pex.

¹⁸ https://learningequality.org/download/

4. When the command finishes, open the default browser at http://127.0.0.1:8080 and proceed with the *Initial Setup* of your facility.

Warning: Remember that **PEX** package allows you to run Kolibri on your system **only while the process is active in the Terminal window**. If that process is stopped (by either pressing *Ctrl* + *C*, closing the Terminal, or restarting your system), you will need to repeat the above steps to start Kolibri again. User accounts, classes and groups you create, as well as the channels you download, will be available every time you restart Kolibri.

1.6.3 Uninstall PEX

- 1. Delete the PEX file.
- 2. Delete the ~/.kolibri folder in your user's Home directory if you want to completely remove all the Kolibri files and channels you imported.

1.6.4 Upgrade PEX

To upgrade Kolibri, follow these steps.

- 1. Download the new version of Kolibri PEX installer¹⁹.
- 2. Start Kolibri as during the first install.
- 3. Go explore the new and improved Kolibri features!

After the installation, proceed to set up your facility:

1.7 Initial Setup

Setting up Kolibri will be different depending on your learning environment:

- If you plan to use Kolibri at home or for supplemental learning outside any facility, use **Quick start**
- If you are installing Kolibri to be used by many learners at formal facilities like schools, or non-formal like libraries or community centers, use **Advanced setup**.

¹⁹ https://learningequality.org/download/

Note: You will only need to do the initial setup once, when you first start Kolibri after the installation. You can change all the settings later.

1.7.1 Quick Start

To do the initial setup of Kolibri for use at home, follow these steps.

1. Select the default language for Kolibri.



Fig. 2: Select the default Kolibri language.

Warning: The default language configured for content in your browser preferences might override the language you choose in this step. To ensure that Kolibri displays in the desired language, make sure to configure it as default in the browsers of all the devices that will be used to view Kolibri content.

- 2. **Select the Quick start** setup option.
- 3. **Create a super admin account.** This user will be a **super admin**, able to manage all the content and all other Kolibri users on this device.

Tip: Make sure to save these super admin credentials in a safe place! Device super admin credentials cannot be retrieved when lost, and you will have to manually create another super admin account to manage

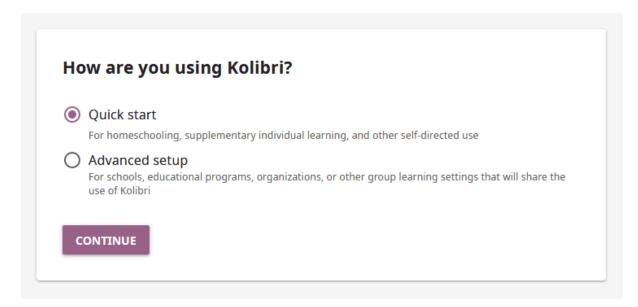


Fig. 3: Select Quick start for personal or home use of Kolibri.

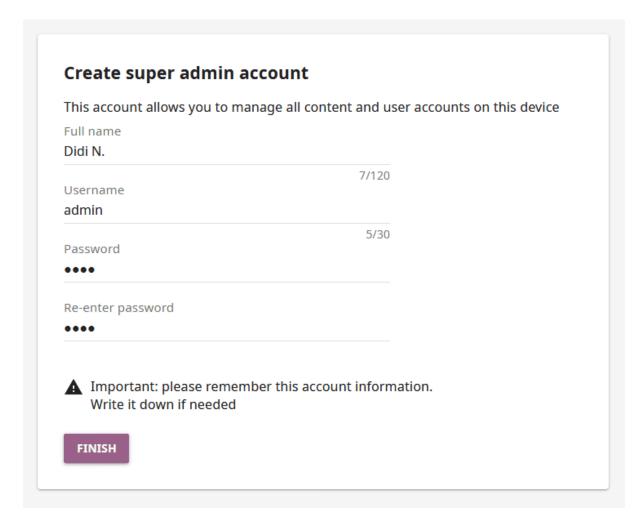


Fig. 4: Select the username and password for the super admin.

your device.

Once you finish the initial setup, proceed to *import some learning resources*, and *create users* if more people at your home are going to be using Kolibri. Make sure to check how to *configure other devices* (computers, tablets or smartphones) in the home network to access Kolibri.

1.7.2 Advanced Setup

1. Select the default language for Kolibri.



Fig. 5: Select the default Kolibri language.

Warning: The default language configured for content in your browser preferences might override the language you choose in this step. To ensure that Kolibri displays in the desired language, make sure to configure it as default in the browsers of all the devices that will be used to view Kolibri content.

- 2. **Select the Advanced setup** option, recommended for schools, educational programs, organizations, or other group learning settings that will share Kolibri.
- 3. **Select the name of the device** on which Kolibri server will be running from. Choose a meaningful and recognizable name because it will help you identify it during syncing and importing processes later on. If many devices are connected to your local network at the same time, the device where the Kolibri server is running must be easily recognizable for users on other devices who need to sync with it.

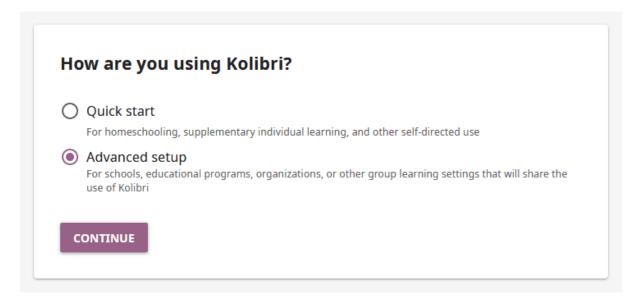


Fig. 6: Select Advanced setup for use of Kolibri in group learning environments.

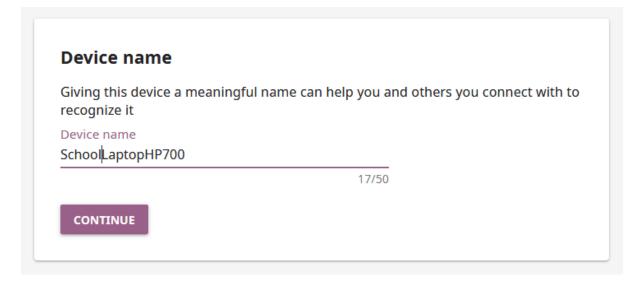


Fig. 7: Select a meaningful name for the device.

4. Create or import a facility. In Kolibri we use the term "facility" to describe a set of user accounts, classes, and their associated data. Examples of facilities include schools, temporary learning hubs, groups of distributed at-home learners, and other situations requiring continuity between learners' activities. At this step, you can choose to create a new facility or import one from another device.

1.7.2.1 Create a New Facility

 Type of facility. When you create a new facility you can choose between Nonformal (libraries, orphanages, correctional facilities, youth centers, computer labs and similar), or a Formal type of facility (schools and other formal learning contexts).

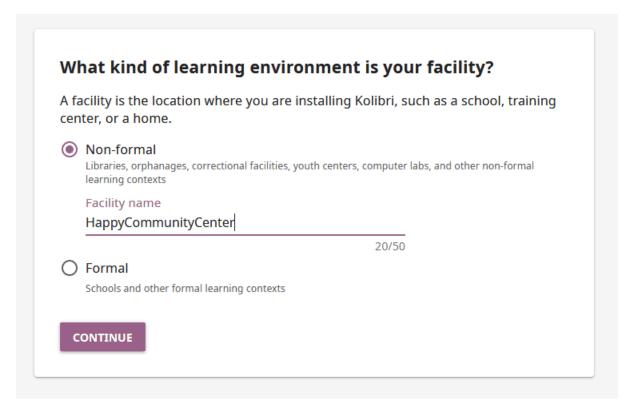


Fig. 8: Select what type of learning environment is your facility and give it a name.

- 2. Guest access.
- 3. User account creation.
- 4. **Enable passwords for learners**. Simplified sign-in, without the password requirement, allows easier access for younger learners.

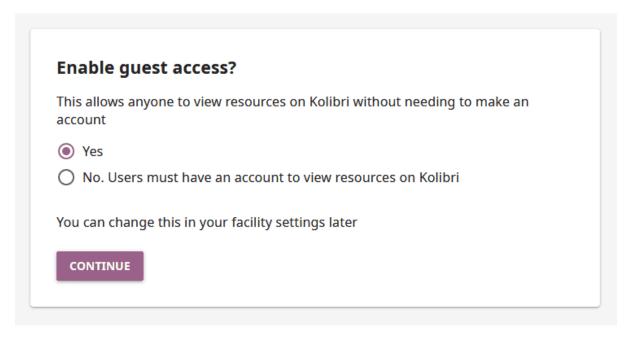


Fig. 9: Select if guests can access Kolibri content without the need to create an account.

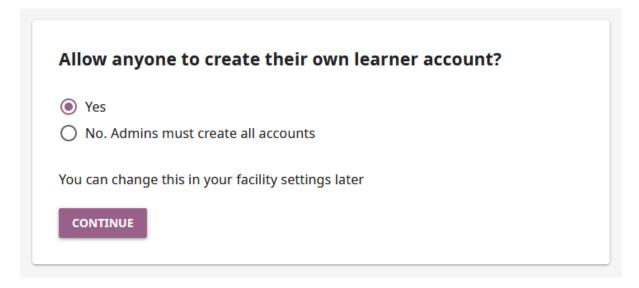


Fig. 10: Select if anyone can create a user account for themselves, or if user accounts must be created by Kolibri admins.

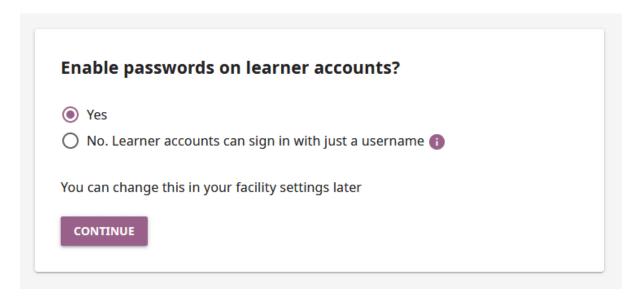


Fig. 11: Select if learners must type in their passwords to sign in on Kolibri.

5. **Create super admin account**. This admin user will be a **super admin**, able to manage not only the content, but also all users and permissions in this facility.

Tip: Make sure to save these super admin credentials in a safe place! Device super admin credentials cannot be retrieved when lost, and you will have to manually create another super admin account to manage your device.

6. Responsibilities of the administrator. When you are setting up a Kolibri facility you need to take into consideration the relevant privacy laws and regulations. As super admin, you or someone you delegate, will be responsible for protecting and managing the user accounts and personal information stored on the device. Review the data usage and privacy statement before finishing the facility setup.

Once you finish the initial setup, proceed to *import some learning resources*, and *create users* (if you chose the Admin-managed facility setup). Make sure to check how to *configure other computers* in the network to access Kolibri.

1.7.2.2 Import Facility

If you are part of a wider learning environment, where several learning facilities like schools or community centers are managed by one central organization, or you need to sync the learner progress data from your facility with another device where Kolibri is running, you can choose to import a facility that is already set up on that device.

Full name	you to manage all conten		
Didi N.			
		7/120	
Username admin			
Password ••••		5/30	
Re-enter password			
••••			
▲ Important: pleas	se remember this accoun	t information.	

Fig. 12: Select the username and password for the facility super admin.

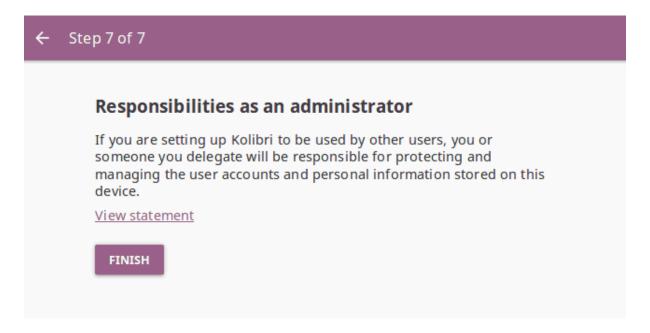


Fig. 13: Review the super admin responsibilities regarding the data usage and privacy.

- 1. Click *Import facility* button in the **Create or import facility** setup step.
- 2. Any device that has Kolibri running in the local network should appear in the **Select network address** window. Read more on how set up a local network in the Kolibri Hardware Guide²⁰.

Select the device and click the Continue button.

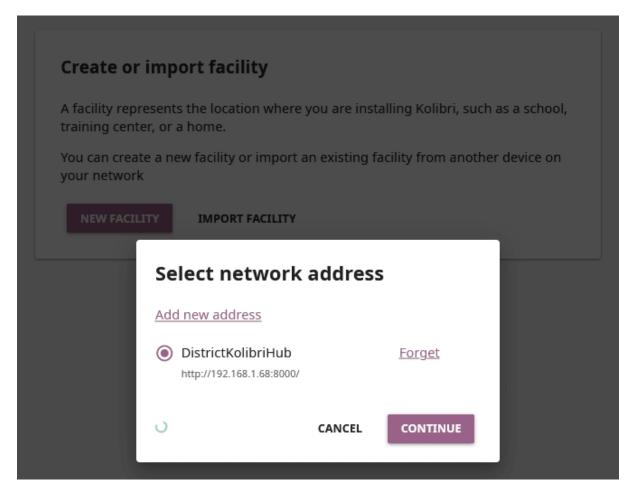


Fig. 14: Select the network address of the device from which you want to import a facility.

Note: If you do not see the address of the device listed, but you know the IP address, you can add it manually. Click the *Add new address* link, and fill in the required information.

Warning: Firewalls may impede your ability to see other devices in your local network or add them as source. If you are unable to see other devices, make sure to:

- disable the firewalls on all the devices that you need to sync
- restart Kolibri for broadcast to take effect

3. **Select facility**. If there are several facilities on the device, select the one you want to import and provide the administrative credentials.

²⁰ https://learningequality.org/r/hardware-guide

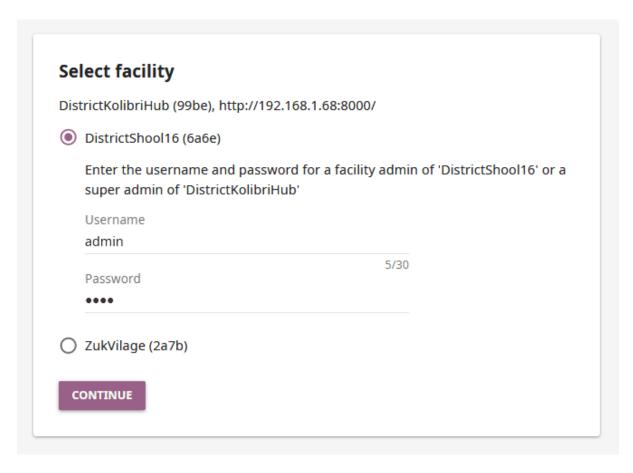


Fig. 16: Select the facility you want to import and provide credentials.

Warning: You must have the credentials (username and password) for either the **facility admin** of the facility you want to import, or for the **super admin** of the device you are importing from.

- 4. Wait for the facility data to load on your device. It may take some time, so please be patient. When you see the confirmation that the process is completed click the *Continue* button.
- 5. Create a super admin account. The account you create in this step will be a super admin for your device, and be able to manage all the device content, all the facility users, and their permissions.

You can choose to create a new super admin account or to use the credentials of the super admin of the device from where you imported the facility.

Tip: Make sure to save the super admin credentials in a safe place! Device super admin credentials cannot be retrieved when lost, and you

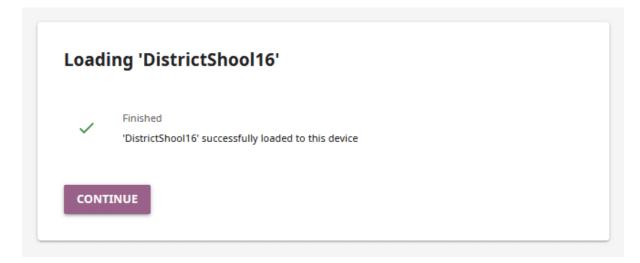


Fig. 17: Facility successfully imported onto your device.

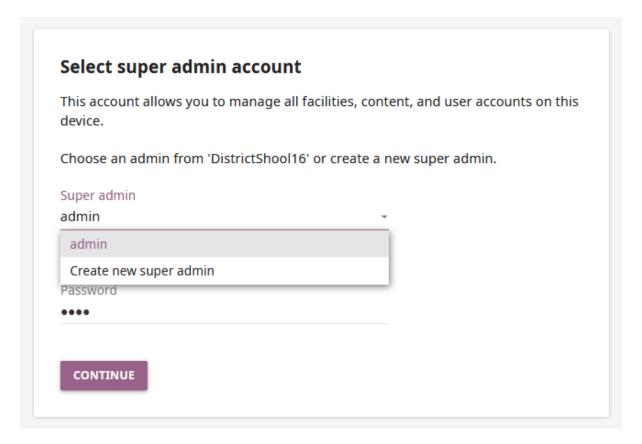


Fig. 18: Select the super admin account.

will have to manually create another super admin account to manage your device.

6. Responsibilities of the administrator. When you are setting up a Kolibri facility, especially in formal environments like schools, you need to take into consideration the relevant privacy laws and regulations. As super admin, you or someone you delegate, will be responsible for protecting and managing the user accounts and personal information stored on the device. Review the data usage and privacy statement before finishing the facility setup.

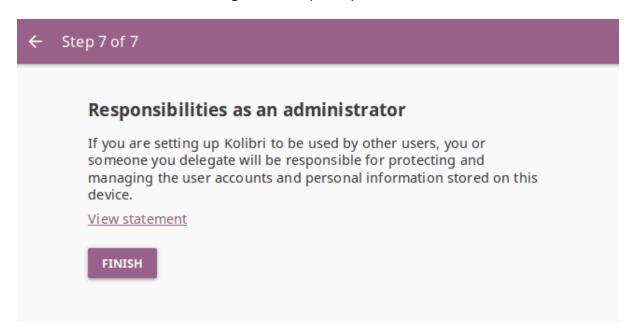


Fig. 19: Review the super admin responsibilities regarding the data usage and privacy.

Once you finish the initial setup, proceed to import some learning resources.

Note: After you close the welcoming message, you will be able to import content from the same device from which you just imported the facility.

Make sure to check how to *configure other computers* in the network to access Kolibri. Read our tutorials to learn about some advanced options:

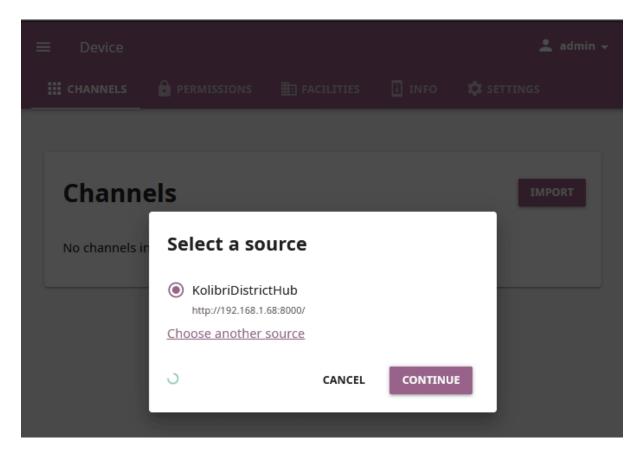


Fig. 20: You can use the same device from which you imported the facility also to import content.

1.8 Provisioning many servers

This tutorial will help you to prepare for the Kolibri implementation where you need to install and provision several Kolibri server devices with the same channels.

Provisioning multiple servers with software and channels is **going to take some time** regardless of the chosen procedure.

You will need an active Internet connection only to preload channels on the first server device. Provisioning the rest of the servers can be accomplished offline, or just within the working local network.

1.8.1 Required hardware

- 1. Laptops and/or other devices to host Kolibri servers.
- 2. For provisioning you have the option to use:
 - Fast USB 3 external drive(s). USB 2 can work too, but we recommend using more than one USB 3 drives for fastest results.

OR

- Working LAN (cabled is preferable to wireless, and ideally via a router that supports Gigabit ethernet).
- 3. Active Internet connection to download the installer and preload channels on the first ("main") server.

We recommend you install and preload channels on one server (referring to it as the *main* for the purpose of this procedure), and then copy the required folder structure to the rest of the devices.

Copying the folders with channels from the main server hard drive to others via the USB 3 external drive might be faster, but copying via the cabled LAN connection may be done in parallel (from main to several others at the same time). You can combine these two options for the fastest results, if you have access to both cabled LAN and the USB external drives.

1.8.2 Provision the main server

- 1. Install Kolibri on the main server by following the steps for your chosen platform.
- 2. Proceed with the *Initial Setup* of the facility on the main server.
- 3. Import the desired channels to preload it on the main server.

1.8.2.1 Kolibri folder structure

At this point you have the main server set-up and preloaded with channels. Before you proceed to copy the channels and the database to the rest of the server devices, let's get familiar with the Kolibri folder structure.

• On Windows, the main server database and all the files related to the channels are stored in the folder named .kolibri, located in C:/Users/<username>/.kolibri/ (if your main hard drive is C:).

<username> refers to the user on your operating system that installed Kolibri as explained above. In the image below for example, you can see that the user who installed Kolibri is called IEUser.

Fig. 21: Find the .kolibri folder on Windows.

• On Linux the .kolibri folder is located inside your user home folder.

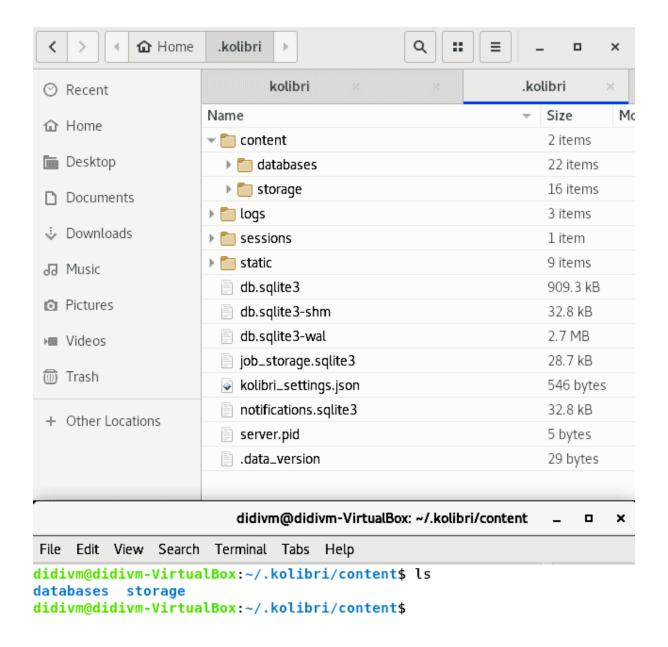


Fig. 22: Find the .kolibri folder on Linux.

The contents of the .kolibri folder is the same for all platforms. Inside you can see the main database file db.sqlite3, and the subfolder named content which contains 2 subfolders: databases with the separate database for each of the channels imported into Kolibri, and the storage folder with all the resources files.

Fig. 23: Find the folder with channel's databases and resources.

1.8.2.2 Prepare the .kolibri folder for copying

Before you proceed to copy the .kolibri folder from the main server hard drive (which already contains channels), to the rest of the server devices for your implementation, you need to **deprovision** (that is, empty out) the user database.

Warning: This is a critical step, to ensure that each destination server has a unique **Facility ID** (and name) associated with it.

- 1. Open the Terminal on Linux or the command prompt on Windows.
- 2. Stop Kolibri server with the following command

```
kolibri stop
```

3. Follow that with the command to empty the user database.

```
kolibri manage deprovision
```

You will have to confirm twice by typing yes and pressing the *Enter* key.

1.8.3 Copy the channels to other server devices

Warning:

- 1. Independent from the copying procedure you decide to use, you should first proceed to *install Kolibri* on each of the destination devices, following the same steps as for the main server, **but you don't need to go through the Initial Setup**.
- 2. After the installation you must **stop Kolibri** on the destination device, before you proceed to copy the channels.
 - On Windows you need to right-click the Kolibri icon in the Windows taskbar (usually at bottom right, near the clock), and select

Exit. You will be prompted to confirm the selection, after which Kolibri will stop.

 On Linux you need to run kolibri stop or sudo service kolibri stop (if you installed Kolibri to run as the system service).

1.8.3.1 Use the external USB drive to copy channels

- 1. Copy the .kolibri folder from the main server hard drive, and paste it on the external USB drive.
- 2. Copy the .kolibri folder from the USB drive, and paste it inside the destination device hard drive.

Note: On Windows you need to copy the .kolibri folder into the C:/Users/<username>/ folder, where the <username> is the account you were logged in as when you installed Kolibri on that destination device (it may be different from the account on the main server). On Linux you need to copy inside the home folder of the user who installed Kolibri, or is the owner of the Kolibri system service.

Warning: You should see an alert message that there is already a .kolibri folder on the destination device: choose the option to overwrite it.

1.8.3.2 Use the cabled LAN connection to copy channels

1. Connect all the devices, main server and the others where you need to copy the channels on, to the same local area network (LAN).

Configure the network access on the main server, so the rest of the devices can:

- See it among their Network locations in the Windows Explorer
- Open it and freely browse its shared folders (.kolibri folder should be shared)
- 2. Use the Windows or File Explorer on each destination device to copy the .kolibri folder from the main server hard drive, and paste it inside the destination device hard drive.

Note: On Windows you need to copy the .kolibri folder into the C:/Users/<username>/ folder, where the <username> is the account you were logged in as when you installed Kolibri on that destination device (it may be different from the account on the main server). On Linux you need to copy inside the home folder of the user who installed Kolibri, or is the owner of the Kolibri system service.

Warning: You should see an alert message that there is already a .kolibri folder on the destination device: choose the option to overwrite it.

3. You should be able to access the main server from several other destination servers through the LAN, and copy the .kolibri folder at the same time.

1.8.3.3 Restart Kolibri servers on destination devices

- On Windows double-click the desktop shortcut to start Kolibri after copying channels. You will see the notification message *Kolibri is starting, please wait....* When you see the next notification that *Kolibri is running...*, Kolibri will open in the browser with the URL http://127.0.0.1:8080.
- On Linux open the Terminal and run kolibri start or sudo service kolibri start (if you installed Kolibri to run as the system service).

Since the deprovision command emptied the user database on the main server, you will need to perform the *Initial Setup* on each destination device to set their Facility name and the super admin account. The Facility name could be the name of the learning center or school in which the respective server will be implemented.

1.9 Manual setup of a Raspberry Pi

This guide shows you how to manually configure a Raspberry Pi as a local Wi-Fi hotspot serving Kolibri.

There are several varieties of operating systems for Raspberry Pi. This guide is intended for and tested on Raspbian²¹, the most popular choice of OS, based on Debian.

²¹ https://www.raspberrypi.org/

Warning: These steps require an internet connection during the installation. After completing the installation, it's possible to replicate an image for offline installation.

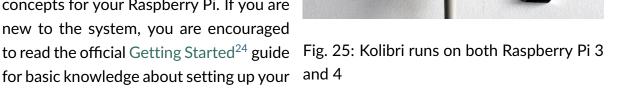
1.9.1 Prerequisites

- Raspberry Pi Model 3, 3+, 4 and Zero W or: Raspberry Pi versions that support Raspbian Stretch or Buster and has onboard Wi-Fi
- Formatted MicroSD Card > 4GB (64 GB recommended or attached USB storage)
- Card reader for a laptop or computer to write to the MicroSD card
- Latest Raspbian Stretch OS .img file
 - Raspbian Desktop²²
 - Raspbian Lite²³
- Internet connectivity (for setting up the device)
- An internal MicroSD card is used for the base system, and an external storage media for channels (for instance a 64 GB USB flash). We recommend that you have an Ethernet cable for online connectivity while installing and downloading Kolibri channels.

Tip: The standard Raspbian OS has a graphical desktop. You can also install Raspbian Lite which uses fewer resources, but only has a command line interface. The instructions in this documentation work seamlessly on both.

1.9.2 Getting started guides

This guide provides a step-by-step setup of Kolibri but does not try to explain basic concepts for your Raspberry Pi. If you are new to the system, you are encouraged for basic knowledge about setting up your device.



In doubt about which Raspbian to

²² http://downloads.raspberrypi.org/raspbian/

²³ http://downloads.raspberrypi.org/raspbian lite/

²⁴ https://projects.raspberrypi.org/en/projects/raspberry-pi-getting-started

choose? We recommend using Raspbian Lite if you are comfortable with an environment that only has a terminal and no graphical user interface. Using the desktop version will consume more CPU, memory and electricity. Finally, you do have the option to *switch off the desktop environment* once you have finished setting up the device.

We install Kolibri as one of the very final step. But please read and complete the prior steps.

1.9.3 Setting up the SD card

The following commands work on Linux/macOS for setting up the .img files provided. You will also need to know the *device node* for the SD Card reader. On Linux, this is typically /dev/mmcblk0 for the Oth card in your card reader.

Unpack the .zip into memory and write it to <device node>.

```
unzip -p /path/to/

→raspbian-stretch-lite.zip | sudo dd<sub>□</sub>

→of=/dev/mmcblk123 bs=4M conv=fsync
```

Tip: Read the official guides for setting up your card: Copying .img files²⁵

Tip: Select your MicroSD card based on other people's experiences and technical benchmarks. For more information, read this Community Forums thread²⁶.

²⁵ https://www.raspberrypi.org/documentation/installation/installing-images/

²⁶ https://community.learningequality.org/t/microsd-cards-picking-the-right-one-experiences-and-benchmarks/935

1.9.4 Updating the software

After installing and starting up your Raspberry Pi, it is recommended that you upgrade all the software on the device:

```
sudo apt update
sudo apt upgrade
sudo reboot

→ # Ensure that updates are active
```

1.9.5 Updating the firmware

Run sudo rpi-update to update the firmware. Nothing in this tutorial necessitates this, but it's always recommended because hardware issues may be solved over time and performance improved. You cannot replicate this by copying MicroSD cards, you would have to repeat this step for every new Raspberry Pi device that you are installing.

1.9.6 General system configuration

Run sudo raspi-config for the general setup options such as password change, keyboard layout, timezone etc.

Warning: Always change your password after setting up device. The default password for the user pi is raspberry.

1.9.7 Setting up a hotspot

Raspberry Pi 3 and 4 have an internal WiFi adapter which can serve as an access point, thus giving other devices the ability to connect to the Raspberry Pi through WiFi. In this case, we call the Raspberry Pi a *hotspot*.

We assume that you will need to connect the Raspberry Pi to the internet both before and after setting up the hotspot. The easiest way to achieve this is through the Raspberry Pi's Ethernet cable connection. In this way, you don't have to disable and enable the WiFi configuration each time.

- The device can be set up such that it automatically uses the Ethernet interface as
 a gateway to the internet when a cable is
 connected.
- If you need to connect to the internet through WiFi, you will have to disable the hotspot and connect through the normal network management.

Note: If you already have a WiFi network at the location where the device will be set up, you should NOT set up an additional hotspot. You can connect the Raspberry Pi to an existing network and access it from there. Skip this step and the Captive Portal step.

1.9.7.1 Installing hostapd and dnsmasq

In order to serve clients on a local WiFi hotspot, you need the Raspberry Pi to act as:

- an access point
- a DHCP server

• a DNS server

The access point is handled by the package hostapd and the DHCP and DNS server are both available through the dnsmasq package. We will install and configure both in this section. For more detailed information, see the online Raspberry Pi docs²⁷.

```
sudo apt install dnsmasq hostapd
```

1.9.7.2 Setting a static IP

Firstly, the server's WiFi interface wlan0 needs to have a predictable IP address and not try to obtain it from another server. We call this a *static IP*.

It is defined in the configuration file /etc/dhcpcd.conf, which you can edit through the below command.

```
sudo nano /etc/dhcpcd.conf
```

Use the arrow keys to navigate to the end of the file, then copy and paste the following text and press *CTRL* + *X* to save and exit. This configuration sets 192.168.4. 1 as the IP address of the server on the configured WiFi network. If you want to change this, you will have to be aware of other consequential changes necessary in the remaining part of this tutorial.

```
interface wlan0
   static ip_address=192.168.4.1/24
   nohook resolv.conf, wpa_supplicant
```

After installing the new hostapd and

²⁷ https://www.raspberrypi.org/documentation/configuration/wireless/access-point-routed.md

dnsmasq packages and setting a static IP, you should reboot the system.

```
sudo reboot
```

1.9.7.3 Configure DHCP and DNS

We create a new configuration file for dnsmasq in the appropriate location and start editing it:

```
sudo nano /etc/dnsmasq.d/hotspot.conf
```

Copy and paste the following text, then press CTRL + X to save and exit.

Next, we need to make sure dnsmasq doesn't interfere with local DNS requests made from the Pi:

```
sudo nano /etc/default/dnsmasq
```

Copy and paste the following text at the end of the file, then press CTRL + X to save and exit.

```
# do not overwrite /etc/resolv.confu

so that local DNS still goes through

DNSMASQ_EXCEPT=lo
```

1.9.7.4 Configure the access point

Warning: This will activate a new network configuration and override the possibility to connect to an online source using the Wi-Fi. Connecting to the internet remains possible through the cabled network. The tutorial has a few steps left that require connectivity for downloading and setting up Nginx and Kolibri. If the Pi is online through the Wi-Fi, do not reboot the device or execute the systemctl commands found at the end of this section until at the very end of the tutorial. You should also download and install all necessary software and Kolibri channels.

Tip: We recommend connecting the device to an internet connection through cable (ethernet), such that you have a reliable way of downloading channels and software at all times.

You will need to write a configuration file with information about your local Wi-Fi network.

```
sudo nano /etc/hostapd/hostapd.conf
```

In the file, copy in the following configuration to specify the name of the network, its Wi-Fi channel (frequency) and bandwidth mode (we recommend 2.4 GHz 'g' mode). Set hw_mode=a to use 5 GHz. Press CTRL + X to save and exit.

```
interface=wlan0
driver=nl80211
ssid=Offline Library
hw_mode=g
channel=7
wmm_enabled=0
macaddr_acl=0
auth_algs=1
ignore_broadcast_ssid=0
\# Remove the '\#' in front of below_{\sqcup}
→lines to set a password 'Password'
# wpa=2
# wpa_passphrase=Password
# wpa_key_mgmt=WPA-PSK
# wpa_pairwise=TKIP
# rsn_pairwise=CCMP
```

Next, edit /etc/default/hostapd to enable the configuration file that we have just written:

```
sudo nano /etc/default/hostapd
```

At the bottom of the file, add the following text and press CTRL + X to exit and save.

```
DAEMON_

CONF="/etc/hostapd/hostapd.conf"
```

Finally, start the access point system service hostapd and the DHCP and DNS server dnsmasq:

```
sudo systemctl unmask hostapd
sudo systemctl enable hostapd
sudo systemctl start hostapd
sudo systemctl restart dnsmasq
```

1.9.8 Setting up a "Captive portal"

You don't have to set up a "Captive Portal", but it's a good idea, since the behavior will make the user experience better. Users won't have to guess the location (hostname / domain) of services on the Raspberry Pi, and many devices support displaying your welcome page automatically upon connecting to the WiFi.

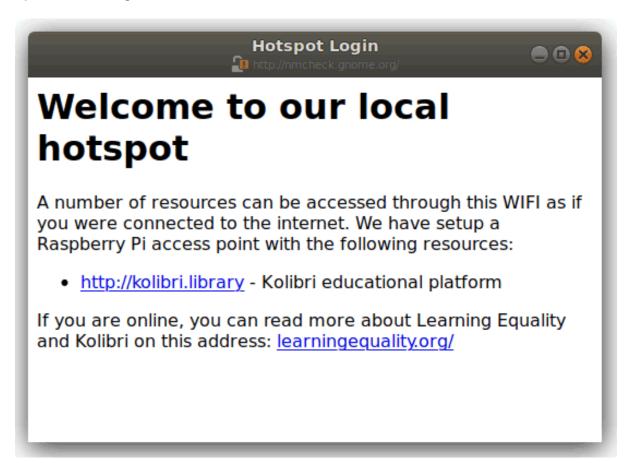


Fig. 26: This type of dialog will appear on many devices when they detect a successful WiFi connection without an internet connection.

In the previous step, we have configured the Raspberry Pi to tell devices on the local offline hotspot that whatever resource they request such as http://domain.com, it should resolve to the Raspberry Pi's static IP address 192.168.4.1.

Firstly, install the HTTP server nginx:

```
sudo apt install nginx
```

Then, you need to edit and adapt your default Captive Portal page. You can use this template (displayed in the previous screenshot). Copy-paste the contents of the template by editing /var/www/html/index.html:

```
sudo nano /var/www/html/index.html
```

You can use CTRL + SHIFT + V to paste text in the terminal. Press CTRL + X to exit and save.

1.9.9 Installing Kolibri

1. First we need to upgrade the python3-cffi library, which is outdated on Raspbian. Upgrade it like this:

```
sudo apt install libffi-dev python3-

→pip python3-pkg-resources dirmngr

sudo pip3

→install pip setuptools --upgrade

sudo pip3 install cffi --upgrade
```

2. Add our Ubuntu PPA with these special instructions:

(continued from previous page)

sudo apt update

3. Install kolibri and kolibri-server:

```
sudo⊔

→apt install kolibri kolibri-server
```

During the installation, make the following choices if prompted: Use the default TCP port 8080 for Kolibri because port 80 will be used by Nginx *later in this tutorial*. Enable the Kolibri system service by selecting Yes when prompted to run Kolibri on start-up. Use the default pi user so that it will have access to USB devices.

4. When the command finishes, open the default browser at http://127.0.0.1:8080 and proceed with the *Initial Setup* of your facility.

Note: The regular Kolibri system service will run background tasks, but its HTTP server is disabled, as all this is handled by the Nginx and UWSGI configuration.

Note: The following issues are quite common on a Raspberry Pi:

- System time isn't set properly or resets during power-off. This causes errors while downloading software. For instance, SSL certificates for online sources will fail to validate. Ensure that you have the right timezone in /etc/timezone and that the clock is set properly by running sudo ntpd -gq.
- Storage space is often scarce. If you have a USB source for additional storage, you can use the kolibri manage movedirectory command or create your own symbolic links to have the data folder

located elsewhere.

Using the built-in management command:

1. Stop Kolibri.

```
sudo systemctl kolibri stop
```

2. Move the data.

```
kolibri manage movedirectory

→/path/to/your/external_drive
```

3. Start Kolibri.

```
sudo systemctl kolibri start
```

• I/O operations are slow: This means that a typical bottleneck on a Raspberry Pi is file transfer to/from MicroSD card or USB attached storage. Once Kolibri is up and running, this will not be a bottleneck, but while copying initial channels of several gigabytes, you will experience this. Both the SD card reader and the USB ports will limit you at 50-80MB/sec. From our experience, it doesn't matter much whether you are using the main SD card reader for

storage or some media connected to your USB, as in principle they both reach about the same maximum speeds. However, you may find significant differences in the speeds of individual SD Cards.

When replicating installations, you can save time if you connect the SD card of USB storage to another device with faster transfer speeds. Replication will be described in future guides.

1.9.9.1 Set up Kolibri local domain

After completing the installation, you can make kolibri available on port :80 in addition to :8080. This will make it possible to type, for example, a domain kolibri.

library in the browser location bar, and because of our captive portal, it will display.

To enable your Nginx web server to serve Kolibri, edit /etc/nginx/sites-available/kolibri and add a so-called *virtual host*:

```
sudo nano⊔

→/etc/nginx/sites-available/kolibri
```

Tip: You can use another domain name instead of kolibri.library. This is configured in the below configuration.

Copy and paste the following into the configuration file:

```
server {
  listen 80;
  listen [::]:80;

  server_name kolibri kolibri.library;

  location / {
    proxy_pass http://127.0.0.1:8080;
  }
}
```

Press CTRL + X to exit and save. Then enable the new configuration by linking it into the directory of enabled virtual hosts:

Finally, reload Nginx for the new site to be available:

```
sudo systemctl reload nginx
```

1.9.9.2 Uninstall

From the command line: sudo apt-get remove kolibri.

1.9.9.3 Upgrade

When you use the PPA installation method, upgrades to newer versions will be automatic, provided there is internet access available.

1.9.10 Attaching USB storage

Many people have a 4 GB or 16 GB MicroSD card that came along with the Raspberry Pi. In order to download larger channels, such as the full Khan Academy, you may want to attach a USB storage media – a flash device or a hard drive.

Tip: Moving channels: If you have a USB source for additional storage, you can use the kolibri manage content movedirectory command or create your own symbolic links to have the data folder located elsewhere.

Using the built-in management command:

```
# Stop kolibri
sudo systemctl kolibri stop

# Move the data
kolibri manage content movedirectory

□ /path/to/your/external_drive

# Start kolibri
sudo systemctl kolibri start
```

Or using symbolic links, you need to start and stop Kolibri and to set the permissions correctly:

```
# Stop kolibri
sudo systemctl kolibri stop
# Relocate the full Kolibri
→data and configuration user folder
sudo mv /home/pi/.kolibri
→/your/external/media/kolibri_data
# Ensure that the kolibri
⇒system service user owns the folder
sudo chown -R_
→pi /your/external/media/kolibri_data
# Restore the original
⇒location with a symbolic link
sudo ln -s /your/external/
→media/kolibri_data /home/pi/.kolibri
# Start kolibri
sudo systemctl kolibri start
```

1.9.11 Other tips

1.9.11.1 Locale warnings

You may encounter warnings like Can't set locale; make sure \$LC_* and \$LANG are correct! while installing software about the system locale. Typically, these are missing UTF-8 locales for your chosen system locale. These can be fixed by running this from command line:

```
# Run this and select the

→appropriate missing UTF-8 locales

sudo dpkg-reconfigure locales
```

1.9.11.2 Disabling the graphical desktop

Once the Pi device is set up, the desktop environment may no longer serve a purpose. It can safely be disabled. This saves computer resources and electricity. Use the following steps to disable or enable the desktop:

```
# Run⊔

the configuration and navigate to□
the Boot option, selecting "Console"
sudo raspi-config
```

1.9.11.3 Remote access

For remote access, you should consider adding SSH (Secure Shell). Once installed and enabled, you can manage the Raspberry Pi without connecting a screen and keyboard and instead logging in from a computer connected to the device through LAN or WiFi. You can use sudo raspi-config to enable the SSH system service. Read more in the official Raspberry Pi docs²⁸.

1.9.12 Saving your image for replication

Once you like the setup and you may want to set up several Raspberry Pis in different schools, classrooms etc.

Tip: Using the same WiFi SSID (in this tutorial, we called it Offline Library) is recommended if you are setting up several Raspberry Pis in the same area. But you should configure them on different WiFi channels. Separate them by a count of 2, this will avoid radio frequency overlaps.

²⁸ https://www.raspberrypi.org/documentation/remote-access/ssh/

Warning: Replicating the Kolibri device registration will make online synchronization unpredictable (fail).

Kolibri has a syncing mechanism whereby user data can synchronize from device to device through an online service. This happens automatically when Kolibri detects an internet connection. You need to unregister (deprovision) your device before copying the SD card and external storage:

kolibri manage deprovision

After replicating your SD card and external storage device, you need re-register the Kolibri installation on each device. This can be done without removing the installed data:

This will ask you questions
kolibri manage provisiondevice

1.9.13 How many clients are supported?

Tip: We recommend that you do your own benchmarking and share experiences in our Community Forums²⁹. See especially this thread about choosing a MicroSD card³⁰.

It can be hard to predict how many students will be able to use Kolibri on a Raspberry Pi at the same time. A major bottleneck will be the Raspberry Pi's built-in

²⁹ https://community.learningequality.org/

³⁰ https://community.learningequality.org/t/microsd-cards-picking-the-right-one-experiences-and-benchmarks/935

WiFi, which might support 5-10 devices in a radius confined by the limited broadcasting power of said WiFi.

The WiFi antenna and chip in the Raspberry Pi do not have capacity for many clients. Thus, you may also want to connect a stronger Access Point. If you intend to do this, you should modify the DHCP server (dnsmasq) to listen to the eth0 device instead of wlan0, switching off the WiFi by removing hostapd.

A Raspberry Pi with 1 GB of RAM may support 10 clients when run behind an access point, but you will likely need a newer Raspberry Pi 4 device if you want to support more than 10 clients.

1.9.14 Next steps

You may also want to install other services such as Kiwix³¹. If you have followed this tutorial, you can install Kiwix alongside Kolibri by downloading the kiwix-serve package and adding an Nginx configuration similar to the one we added for Kolibri.

The Raspberry Pi has the advantages of being low-cost and energy efficient: You can connect it to solar power; you can also implement a good system for distributing software updates and replacement parts through SD Cards and external USB media. Not least, you can make the Raspberry Pi itself a hot-swap element in a setup, such that the whole device is collected and replaced during upgrades. We leave these steps up to you, but please

³¹ https://www.kiwix.org

feel free to share your ideas in the Community Forum³².

³² https://community.learningequality.org/

Chapter 2

Access Kolibri

Steps to access and start the **Kolibri** server will differ depending on your operating system.

2.1 Windows

To start the **Kolibri** server on Windows, just double-click the desktop shortcut. You will see the notification message *Kolibri* is starting, please wait....

When you see the notification *Kolibri is running...*, **Kolibri** will open in the browser with the URL http://127.0.0.1:8080.

2.1.1 Kolibri Taskbar Options

While it is running, **Kolibri** will display an icon in the Windows taskbar (usually at bottom right, near the clock), that allows you to stop it and configure other settings.

- Use the **Load in browser** option to open Kolibri in the browser.
- By default **Kolibri** will start running every time you start the computer where it is installed. Uncheck the **Run Kolibri** at system startup option if you prefer to start it manually from the desktop shortcut.
- When installed, **Kolibri** will open in the browser every time it is started. Uncheck the option **Open browser when Kolibri starts** if you prefer to have it running in the background, and to open it manually in the browser by typing the URL http: //127.0.0.1:8080 in the address bar.

2.1 Windows 52

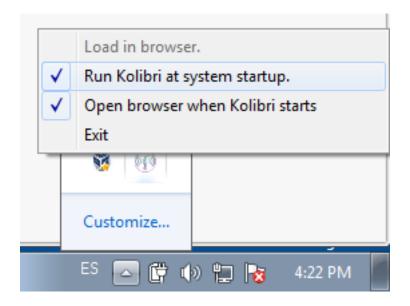


Fig. 1: Kolibri taskbar options.

• Select **Exit** to stop **Kolibri**. You will be prompted to confirm the selection, after which **Kolibri** will stop. You will have to close the browser (or the tab) manually.

Tip: If you close the browser window, Kolibri will still be running in the background. Use the **Load in browser** menu item to reopen it in the browser.

Warning: In some Windows multi-user environments (for example NComputing), you need to make sure that Kolibri is running **only from the admin account** to avoid having Kolibri started for each login/session. Confirm that the **Run Kolibri at system startup** taskbar option is checked only when the admin logs in, but unchecked when any other user of virtual desktops is logged in.

It is also recommended that you remove the Kolibri desktop launcher icon from all non admin accounts in this type of setup, and substitute it with a regular shortcut that opens the Kolibri server IP. To add the desktop shortcut follow these steps.

- 1. Right click anywhere on the desktop.
- 2. Select New > Shortcut.
- 3. Type in the Kolibri server IP (most probably http://127.0.0.1), save and exit.
- 4. Double-click the shortcut to test if it opens the browser and loads Kolibri.

Note: Remember to *configure other computers* in the network to access **Kolibri**.

2.2 Linux 53

2.2 Linux

Starting Kolibri on Linux will differ depending on the method you used to install it.

• If you used the **PEX** package, Kolibri will be accessible as long as the process is running in the Terminal³³. If you stop the process, close the Terminal window, or restart your system, you will need to *run the PEX again* to restart Kolibri.

- If you installed Kolibri as a system service with the *DEB installer*, it will run automatically on each system restart, and you do not need to start it manually. Proceed to step 2 below.
- If you installed Kolibri through the *PPA*, or *generic installation* with pip install command, follow these steps.
 - 1. Run this command in Terminal to start Kolibri:

```
kolibri start
```

2. Open the default browser at http://127.0.0.1:8080, and it will display the **Kolibri** start page.

Note: Remember to *configure other computers* in the network to access **Kolibri**.

3. Run this command in Terminal to stop Kolibri:

kolibri stop

2.3 Raspberry Pi

Kolibri server on Raspberry Pi will run automatically on each system restart, and you do not need to start it manually.

Open the default browser at http://10.10.10.10, and it will display the **Kolibri** start page.

Note: Remember to configure other computers in the network to access **Kolibri**.

³³ https://help.ubuntu.com/community/UsingTheTerminal

2.4 MacOS 54

2.4 MacOS

Use the Kolibri icon in the Launchpad to open the app on macOS.

Warning: If you are using keyboard navigation on macOS, be sure to enable 'All Controls' in the 'System Preferences'³⁴.

Note: Remember to configure other computers in the network to access **Kolibri**.

Remember to configure other devices in the the same network to access the learning resources on the server.

2.5 Accessing Kolibri from Other Devices

After you have installed and started Kolibri on the computer that will act as a server, you need to configure other devices in the same Local Area Network³⁵ (LAN), such as other computers, tablets or phones, so they can access the the learning resources on the server.

2.5.1 Compatibility

Kolibri currently supports the following combinations of operating systems and browsers for client devices:

- Windows 7, 8.1 and 10: IE 11+, Chrome and Firefox
- MacOS 10.6+: Safari, Chrome and Firefox
- Linux: any browser
- Android 4.4+: Chrome and Firefox
- iOS 10+: Safari, Chrome and Firefox

Warning:

³⁴ https://www.a11yproject.com/posts/2017-12-29-macos-browser-keyboard-navigation/

³⁵ https://en.wikipedia.org/wiki/Local_area_network

- Videos in Kolibri are in MP4 file format. While most browsers do not require additional plugins or codecs, open source platforms and browsers will require you to install codecs separately. If you encounter the error *No compatible source was found for this media* when you try to play videos in Firefox on Ubuntu for example, you must install the restricted extras package³⁶.
- If you are still unable to view videos in fully open source browsers like Chromium or Firefox, try using Google Chrome.

2.5.2 Set up Access on Other Devices

To access resources from other devices in the same network, you need to know the *IP* address of the computer where Kolibri is running. The default port is **8080**, and you must add it after the IP address.

For example, if Kolibri is installed and started on a computer with the address **192.168.8.134:8080**, you can access it from an Android tablet connected to the same network by opening the browser on the tablet and typing the address http://192.168.8.134:8080.

Tip:

- You can check the IP (**Server URL**) of the device where Kolibri is running by going to **Info** tab in the **Device** dashboard.
- You can also use the ipconfig command on Windows or ifconfig command on Linux and macOS to find the externally visible IP address of the device running the Kolibri.

Warning:

- When entering the URL in the browser, it may be required to explicitly include http://, for example http://1.2.3.4:8080 or http://1.2.3.4:80. Many browsers will incorrectly interpret an IP address or local network hostname as a search term. In other cases, browsers may incorrectly add https:// instead of http://.
- In case you decide to make Kolibri available on the port 80, instead of the default 8080, you **must always include** http:// in front of the server's IP.

³⁶ https://help.ubuntu.com/community/RestrictedFormats

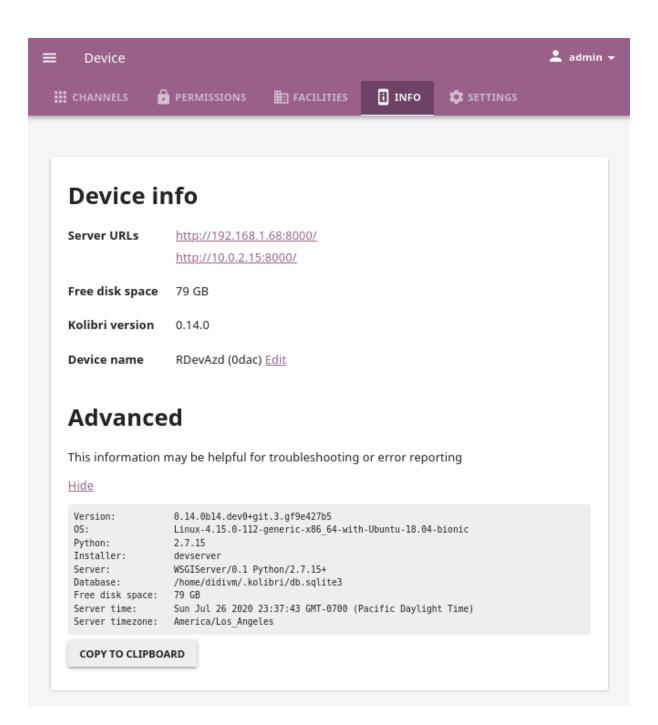


Fig. 2: Find the IP/Server URL in the Device > Info tab.

2.6 Change Language 57

Note:

- In case of network problems, see troubleshooting tips.
- Examples and comparison of Hardware Configurations for Kolibri³⁷ (PDF document).

2.6 Change Language

To change language in which the **Kolibri** user interface is displayed, follow these steps:

- 1. Open your user menu in the upper right corner.
- 2. Select the **Change language** option.
- 3. Choose the desired language.
- 4. Click CONFIRM and Kolibri will be displayed in the selected language.

Warning: The default language configured in your browser preferences might override the language configured in Kolibri. To ensure that Kolibri displays in the desired language, make sure to configure it as default in the browsers of all the devices that will be used to view Kolibri.

³⁷ https://learningequality.org/r/hardware

2.6 Change Language 58

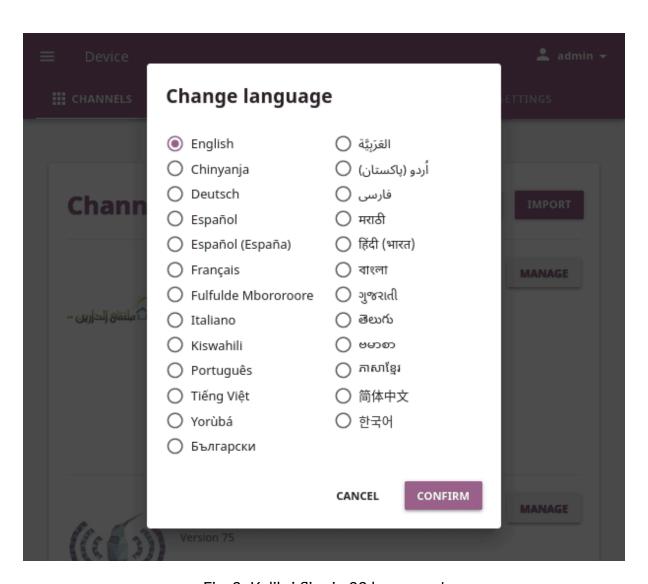


Fig. 3: Kolibri flies in 23 languages!

Chapter 3

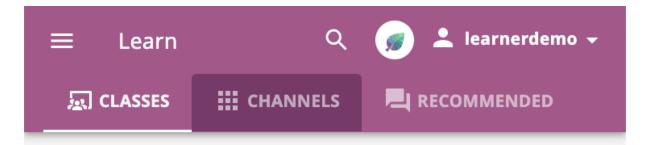
Manage Kolibri

3.1 Default User Roles

By default Kolibri users can have one of 3 roles with respective permissions to access different features.

3.1.1 Learner

Learners have access to the **Learn** dashboard with the tabs **Classes**, **Channels**, and **Recommended**.



Learners can:

View resources and have their progress tracked

3.1.2 Coach

Coaches have access to the same tabs as learners, but they also have permissions to access the **Coach** dashboard with the tabs **Class Home**, **Reports**, and **Plan**.

3.1 Default User Roles 60



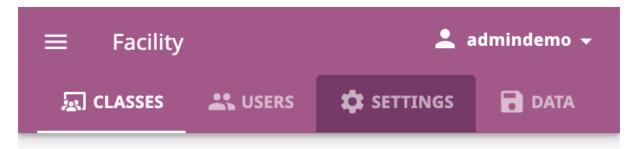
Coaches can:

- View resources and have their progress tracked
- Access the Coach dashboard
 - Track progress of other users and usage stats for individual exercises (in the Reports tab)
 - (in the Plan tab)
 - * Create/Edit/Delete Groups in Classes and add users to them
 - * Create/Edit/Delete Quizzes and assign them to users
 - * Create/Edit/Delete Lessons and assign them to users

Note: Facility coaches have access to all classes, class coaches only to ones they are assigned to

3.1.3 Facility Admin

Facility admins have access to the same tabs as learners and coaches, but they also have permissions to access the **Facility** dashboard with tabs **Classes**, **Users**, **Settings**, and **Data**.



Admins can:

View resources and have their progress tracked

3.1 Default User Roles 61

- Access the Coach dashboard to:
 - Track progress of other users and usage stats for individual exercises
 - Create/Edit/Delete Groups in Classes and add users to them
 - Create/Edit/Delete Quizzes and assign them to users
 - Create/Edit/Delete Lessons and assign them to users
- Access the Facility dashboard to:
 - Create/Edit/Delete Classes and enroll users in them (in the Classes tab)
 - Create/Edit/Delete other admins, coaches, and learners (in the Users tab)
 - View/Edit facility configuration settings (in the Settings tab)
 - Export Detail and Summary logs usage data (in the Data tab)

3.1.4 Super Admin

Kolibri **super admin** users have access to the same tabs as learners, coaches, and facility admins, but they also have permissions to access the **Device** dashboard with tabs **Channels**, **Permissions**, **Facilities**, **Info**, and **Settings**. Super admins have all device permissions, and are able to *assign them to other users*.



Super admin users can:

- View resources and have their progress tracked
- Access the Coach dashboard to:
 - Track progress of other users and usage stats for individual exercises
 - Create/Edit/Delete Groups in Classes and add users to them
 - Create/Edit/Delete Quizzes and assign them to users
 - Create/Edit/Delete Lessons and assign them to users
- Access the Facility dashboard to:
 - Create/Edit/Delete Classes and enroll users in them (in the Classes tab)
 - Create/Edit/Delete other admins, coaches, and learners (in the Users tab)
 - View/Edit Facility configuration settings (in the Settings tab)
 - Export Detail and Summary logs usage data (in the Data tab)
- Access the Device dashboard to
 - Import/Export channels (in the Channels tab)
 - View/Edit permissions of other users (in the *Permissions* tab)

3.2 Facility 62

- View/Import/Sync/Delete facilities (in the Facilities tab)
- View device hardware and system details (in the *Info* tab)
- View/Edit device configuration settings (in the Settings tab)

Tip: If you are unable to retrieve the username and password for the super admin account in your facility, you can *create a new super admin account using the command line*.

3.1.4.1 Assign Additional Permissions

By default, only **super admin** users can view the **Device** dashboard, import/export channels in Kolibri, and modify **Permissions** for other users. However, depending on the needs of the institution, **super admin** users can also *grant these permissions* to other users.

3.2 Facility

You can edit facility configuration settings in Kolibri from the **Settings** tab in your **Facility** dashboard. Remember that you can also configure *Device* settings.

Note: If you have more than one facility on the device, you must first select a facility. Click on the name of the facility from the list to access its settings.

Note: To manage facility settings in Kolibri you must sign in as **admin** or **super admin**.

- 1. Activate the options you want to make available for the users of your facility. You have the possibility to allow users to:
 - · edit their full names and usernames
 - sign in without password (only learners)
 - download resources (videos, documents, etc.) on their own devices
 - create accounts on your facility
- 2. Click SAVE CHANGES to apply and finish.

3.3 Users 63

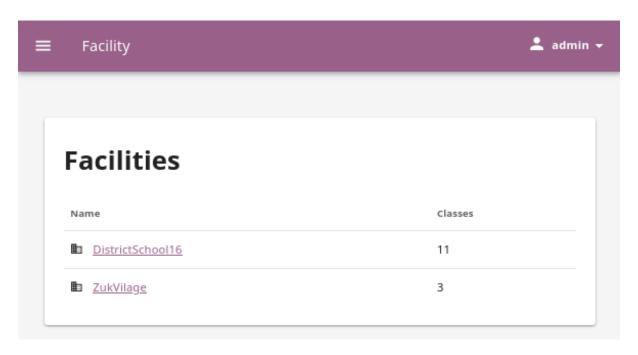


Fig. 1: Select a facility to access the configuration settings.

3.2.1 Rename Facility

To edit facility name, follow these steps.

- 1. Click on the Edit link next to the facility name.
- 2. Write the new name in the Facility name field.
- 3. Click SAVE to confirm the edited information, or CANCEL to exit without saving.

Warning: Only the facility name will be changed, and the new name will be *synced* and updated on other devices linked to this facility.

3.3 Users

You can search for, filter, add, and edit user accounts in Kolibri from the **Users** tab in your **Facility** dashboard.

Note: If you have more than one facility on the device, you must first select a facility. Click on the name of the facility from the list to access its users.

3.3 Users 64

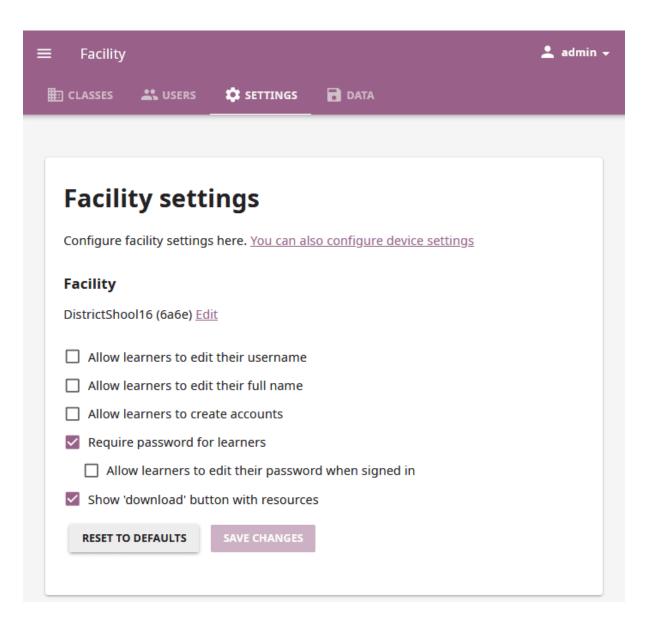
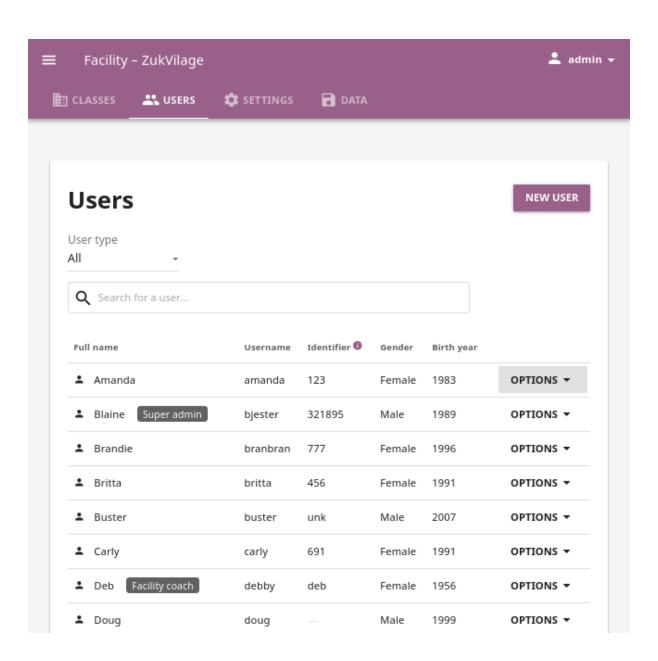


Fig. 2: Manage facility configuration settings.

3.3 Users 65



3.3 Users 66

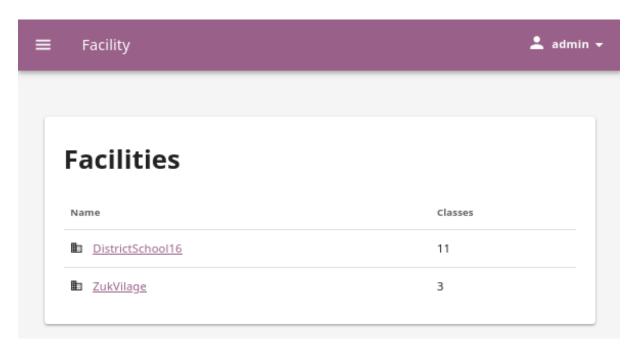


Fig. 3: Select a facility to access its users.

Remember that to manage Kolibri users you must sign in as admin or super admin.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

3.3.1 Create a New User Account

To create a new user account, follow these steps.

- 1. Click the NEW USER button.
- 2. Fill in the required information (name, username, password).
- 3. Select the user type (Admin, Coach or Learner).
- 4. Add demographic data (optional).
- 5. Click SAVE to add the new user.

3.3.1.1 Coach Type

When you create a new *Coach* user account, or change the type (role) to *Coach* for an existing user, you can choose between:

- Class coach, that will have access to the coach dashboard and permissions to instruct ONLY the learners in the classes they are assigned to.
- Facility coach, that will have access to the coach dashboard and permissions to instruct ALL the classes and the learners in the facility.

3.3 Users 67

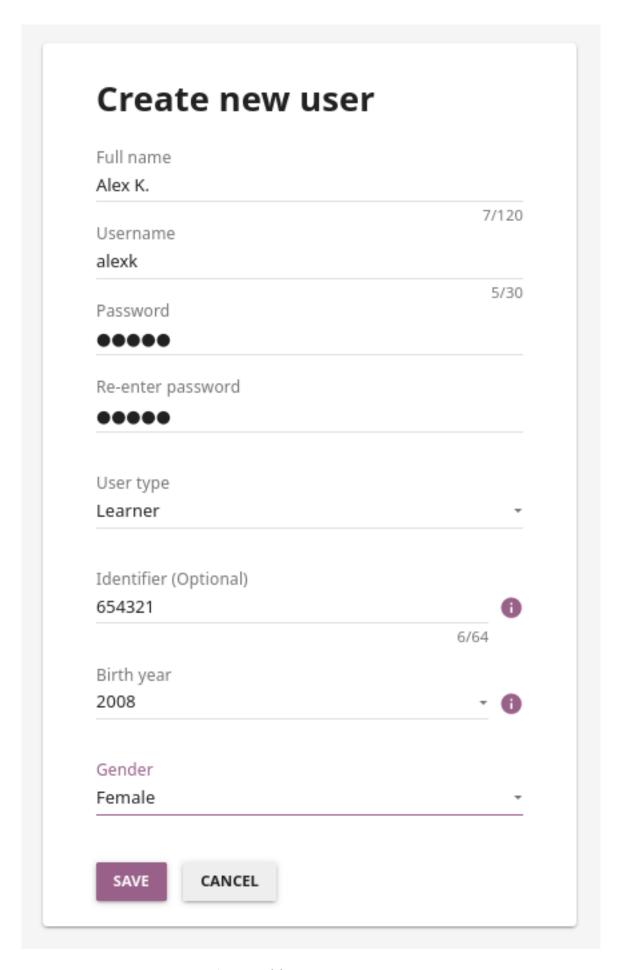


Fig. 4: Add new user account.

3.3 Users 68

Coach Class coach Can only instruct classes that they're assigned to Facility coach

Can instruct all classes in your facility

3.3.2 Select Users by Type

- 1. Click to open the selector under **User type** to see filtering options. **All** users are displayed by default.
- 2. Toggle between options (learners, coaches, admins, super admins) to display the users according to type.

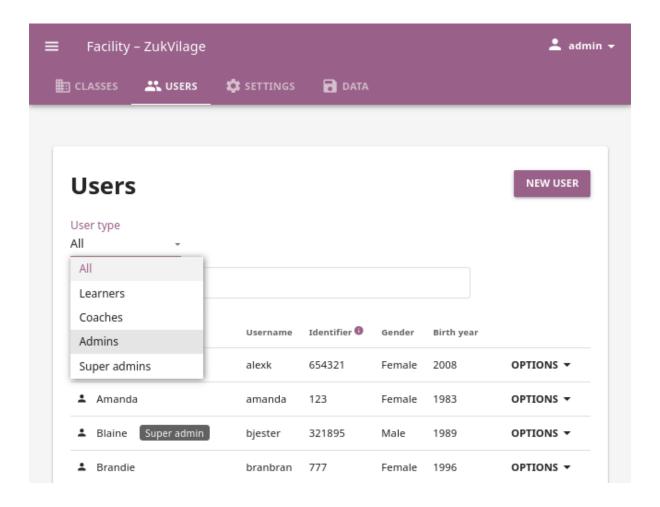
3.3.3 Edit User's Account

To edit username, full name or account type, follow these steps.

- 1. Click the OPTIONS button for the desired user and select the **Edit details** option.
- 2. Edit Full name, Username, User type, Identifier, Birth year and Gender in the Edit user details window.
- 3. Click SAVE to update the edited information, or CANCEL to exit without saving.

3.3.3.1 Reset User's Password

- 1. Click on the OPTIONS for the desired user and select the **Reset password** option.
- 2. Enter the new password in both fields in the **Reset user password** window.
- 3. Click SAVE to confirm, or CANCEL to exit without changing the password.



3.3.3.2 Delete User's Account

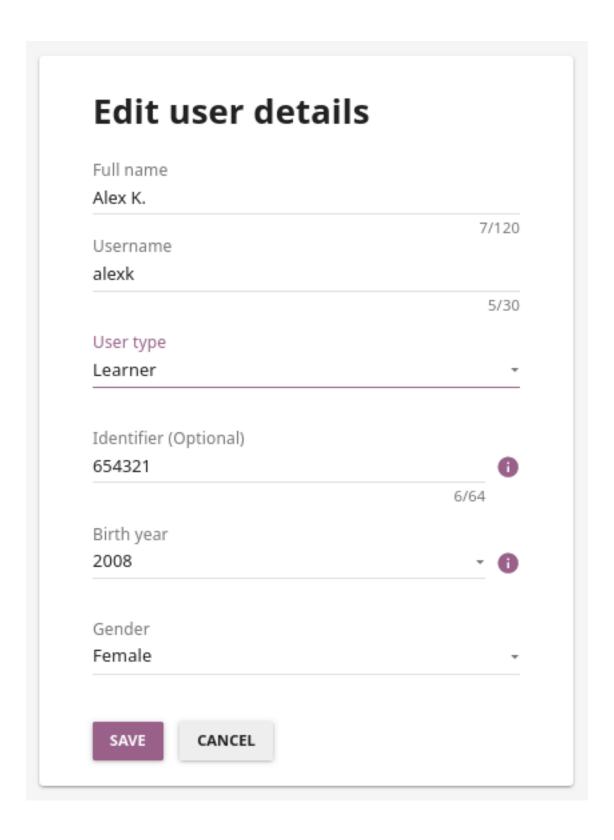
- 1. Click the OPTIONS for the desired user and select the **Delete** option.
- 2. Click DELETE to confirm, or CANCEL to exit without deleting the account.

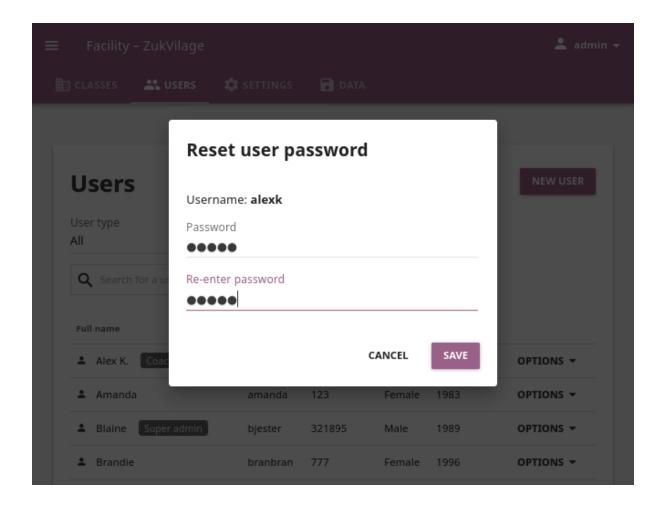
Warning: When you delete a user, all their learning records will be erased from the database.

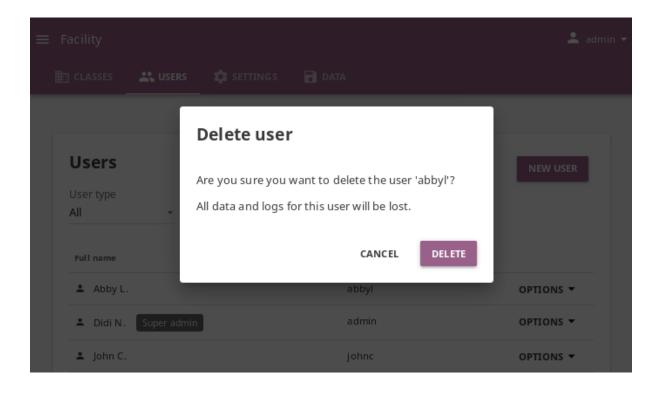
3.4 Classes

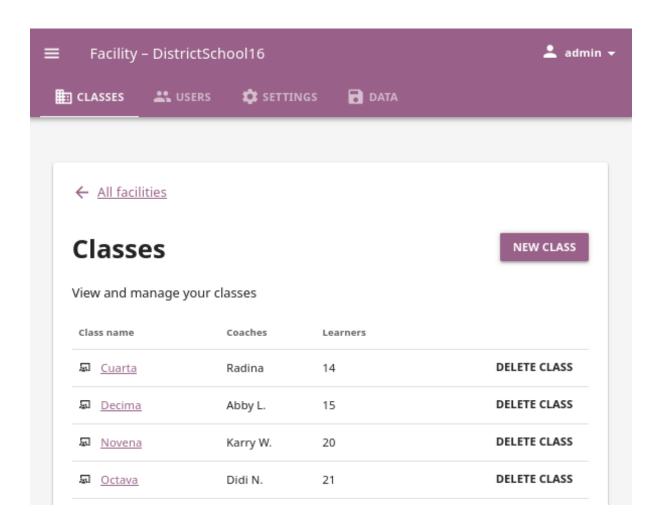
You can view, create and delete classes, as well as search, filter and enroll Kolibri users in them, using the **Classes** tab in your **Facility** dashboard. Default view displays the list of all classes in your facility, with the number of enrolled users for each class, and the coaches assigned.

Note: If you have more than one facility on the device, you must first select









a facility. Click on the name of the facility from the list to access its classes.

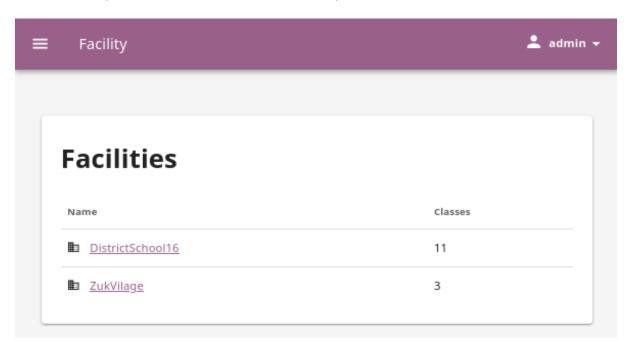


Fig. 5: Select a facility to access its classes.

To manage Kolibri classes you must sign in as admin or super admin.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

3.4.1 Add New Class

To add a new class, follow these steps.

- 1. Click NEW CLASS.
- 2. Fill in the class name.
- 3. Click SAVE to add the new class, or CANCEL to exit.

3.4.2 Delete Class

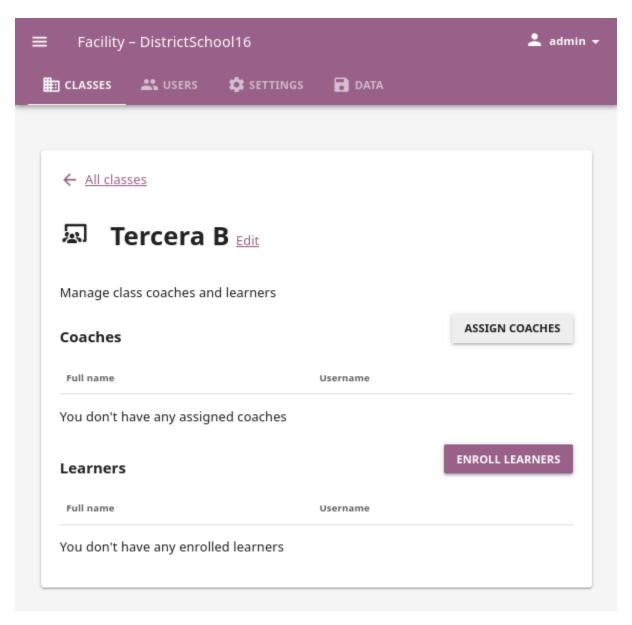
To delete class, follow these steps.

- 1. Click DELETE CLASS for the chosen class from the list.
- 2. Click *DELETE* in the confirmation window to proceed, or *CANCEL* to exit without deleting the class.

Note: Users enrolled in the class you are deleting will not be removed from the database.

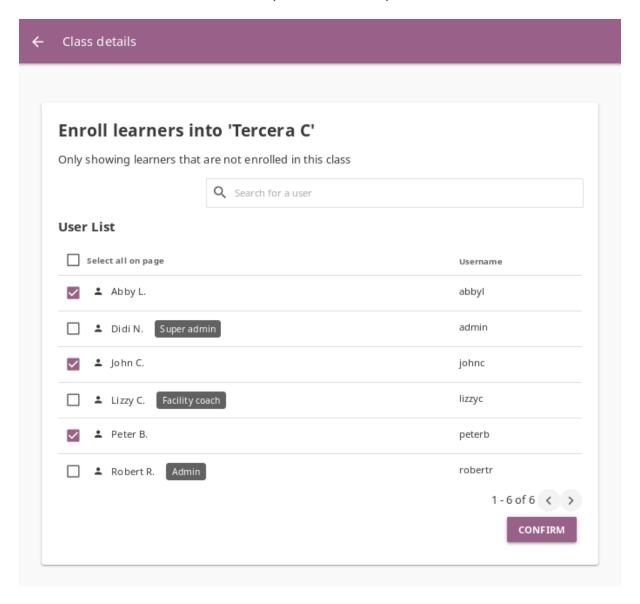
3.4.3 Edit Class, Learners and Coaches

A newly created class does not have any learners or coaches. To edit a class select it from the default view in the **Classes** tab. In this view, you can change class name, add or remove currently enrolled learners and assign or remove coaches from the class.



3.4.3.1 Enroll Learners in Class

- 1. Click the ENROLL LEARNERS button on the class details page.
 - List in this view contains all the learners currently NOT enrolled for the selected class.
 - You can search for a specific learner by name.

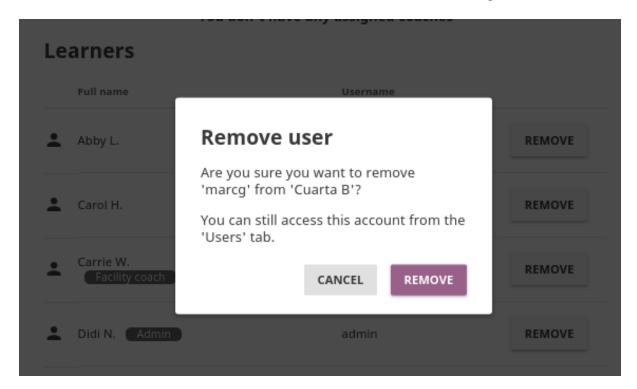


- 2. Use checkboxes to select all the learners in the list, or the search field for specific learners you want to enroll to class.
- 3. Click *CONFIRM* to finish enrolling the selected learners and return to the main class page.

3.4.3.2 Remove Learners from Class

1. Click REMOVE for the chosen learner.

2. Click REMOVE to confirm, or CANCEL to exit without removing the learner.



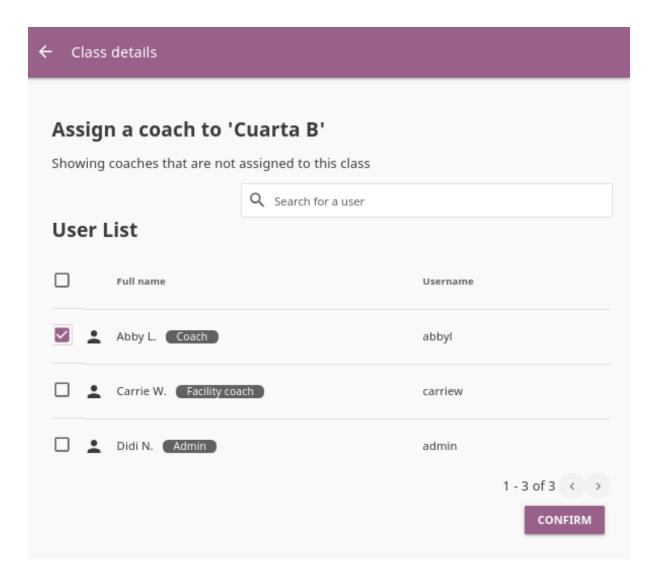
Note: Learners removed from the class will not be deleted from the database, and you can still access their accounts from the **Users** tab in the **Facility** dashboard.

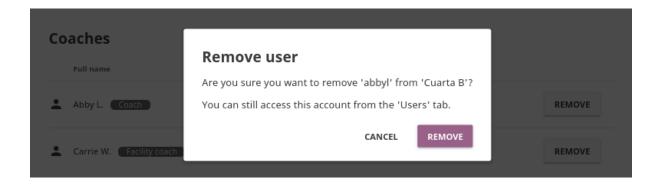
3.4.3.3 Assign Coaches to Class

- 1. Click the ASSIGN COACHES on the class details page.
 - List in this view contains all the users with *Coach*, *Facility coach* or *Admin* roles.
 - You can search for a specific user by name.
- 2. Use checkboxes to select all the users in the list, or the search field for specific users you want to assign as a coach to class.
- 3. Click CONFIRM to finish.

3.4.3.4 Remove Coaches from a Class

1. Click REMOVE for the chosen coach.





2. Click REMOVE to confirm, or CANCEL to exit without removing the coach.

Note: Coaches removed from the class will not be deleted from the database, and you can still access their accounts from the **Users** tab in the **Facility** dashboard.

3.4.3.5 Rename Class

To edit class name, follow these steps.

- 1. Click on the **Edit** link next to the class' name.
- 2. Write the new name in the Class name field.
- 3. Click SAVE to confirm the edited information, or CANCEL to exit without saving.

3.5 Data

You can download Kolibri *Detail* and *Summary* logs usage data and export in the CSV format from the **Data** tab in your **Facility** dashboard.

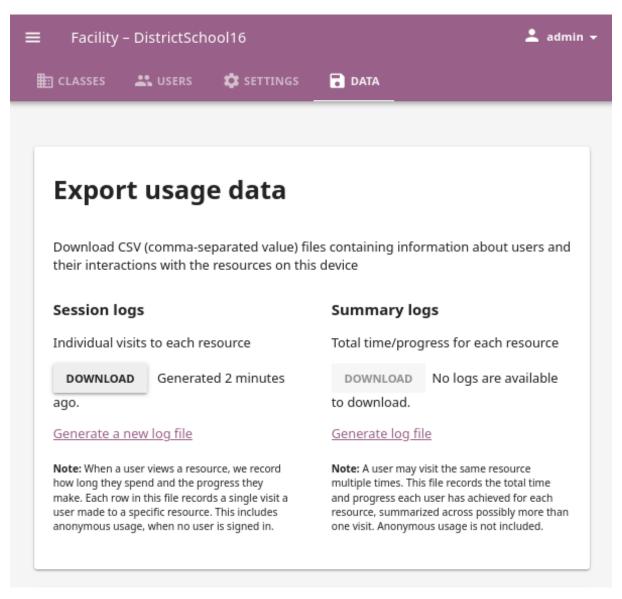
Note: If you have more than one facility on the device, you must first select a facility. Click on the name of the facility from the list to access its data.

Remember that to manage Kolibri data you must sign in as admin or super admin.

To download session or summary logs, follow these steps.

- 1. Click the Generate log file link for the file you require.
- 2. Click the DOWNLOAD button.
- 3. Save the generated CSV file on your local drive.
- 4. To download again after more interactions click the Generate a new log file link.

Tip: If the log generation is taking a long time, we recommend using the command line interface.



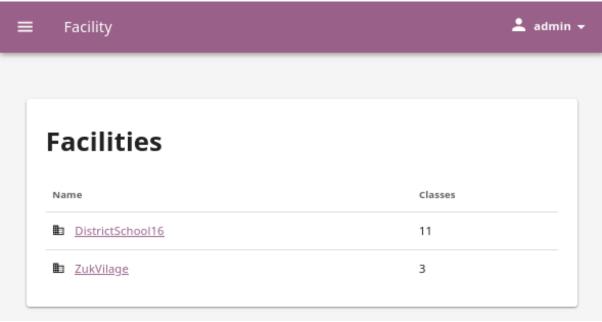


Fig. 6: Select a facility to access its data.

3.5.1 Import and Export Users from a CSV file

To import and export many users and classes at once you can use an externally generated CSV (comma separated values) file.

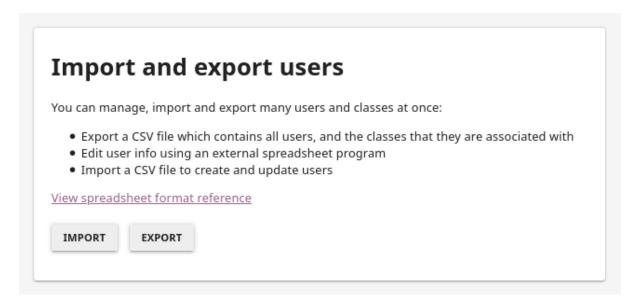


Fig. 7: Import and export users with CSV.

Warning: Importing from CSV will make many changes to your users and classes, and these changes cannot be easily reverted. Read carefully the requirements below, and make sure to verify that the data in your CSV file is accurate and adheres to the format reference.

For the import to be successful, you must have a CSV file with properly formatted data with some required values. We recommend the following procedure:

- 1. Use the **Export** *feature first and save the CSV file* which contains all users and classes you already have in the facility.
- 2. Open the CSV file with an external spreadsheet program and make changes.
- 3. Export a new CSV file from the spreadsheet program.
- 4. Use that CSV file to **Import** or update users and classes.

Tip: You can also use this CSV file template to get familiar with the required format.

3.5.1.1 CSV File Format Reference

The first row must be a header row, and contain the columns:

• Database ID (UUID) - Optional

An ID used by Kolibri to uniquely identify a user. Leave it blank to create a new user.

• Username (USERNAME) - Required

Maximum 125 characters. Can contain letters, numbers and underscores.

• Password (PASSWORD) - Required

Maximum 125 characters. To leave unchanged, use an asterisk *.

Full name (FULL_NAME) - Required

Maximum 125 characters.

• User type (USER_TYPE) - Required

Use one of theses values:

- ADMIN
- FACILITY_COACH
- CLASS_COACH
- LEARNER
- Identifier (IDENTIFIER) Optional

Any identifying string, such as a student ID or email address. Maximum 64 characters.

Birth year (BIRTH_YEAR) - Optional

A four-digit year, greater than 1900

• Gender (GENDER) - Optional

Use one of theses values:

- MALE
- FEMALE
- NOT_SPECIFIED
- Learner enrollment (ENROLLED_IN) Optional

List of classes to enroll the user in as a learner:

- Any type of user can be enrolled as a learner in a class.
- Write the class names separated by commas.
- If the class name in the field does not match exactly with any of the existing classes in the facility, the command will create a new class with that name.
- Coach assignment (ASSIGNED_TO) Optional

List of classes to which the user will be assigned as a coach:

- Do not use for learner users.
- Write the class names separated by commas.

- If the class name in the field does not match exactly with any of the existing classes in the facility, the command will create a new class with that name.

3.5.1.2 Import Users

Importing users from a CSV file will make the following changes to your facility:

- Create new user accounts (for any USERNAME in the CSV that does not exist in the facility).
- Update existing user accounts (when the username in the database and the CSV match exactly).
- Set which classes each learner is enrolled in.
- Set which classes each coach is assigned to.
- Create new classes (for any value of ENROLLED_IN or ASSIGNED_TO in the CSV that does not match exactly the existing class name in the facility).
- Delete any users and classes in the facility if not referenced in the CSV.

To import users from a CSV file, follow these steps.

- 1. Click the IMPORT button to open the Import users page.
- 2. Click the *BROWSE* button to select the CSV file with the new user and classes data.
- Click the CONTINUE button to see the summary of changes that will be made.
- 4. Click the IMPORT button finish importing.
- 5. When you see the notification that the import was successful, click the *CLOSE* button.
- 6. Open the **Users** or **Classes** tab to verify the changes.

3.5.1.3 Export Users

- 1. Click the EXPORT button and wait for the CSV file to generate.
- 2. Save the generated CSV file on your local drive.

3.5.2 Sync Facility Data

If your Kolibri facility is part of a larger organization that tracks data on the **Kolibri Data Portal**, you may have received the project token to sync the facility data with the organization in the cloud. Follow these steps to register your facility and sync.

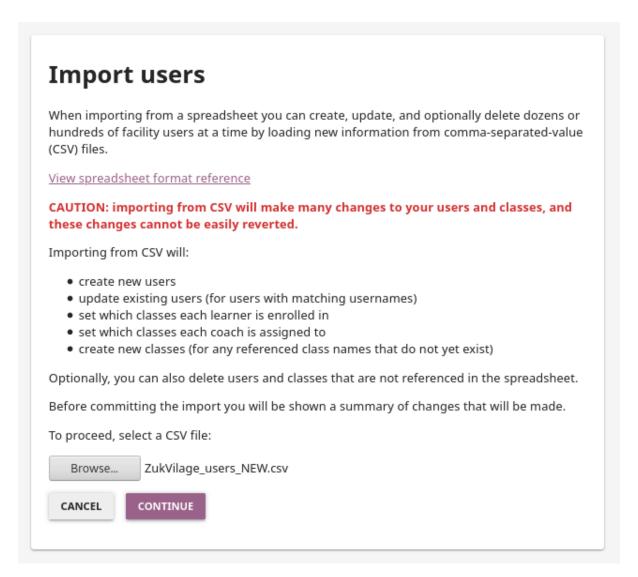
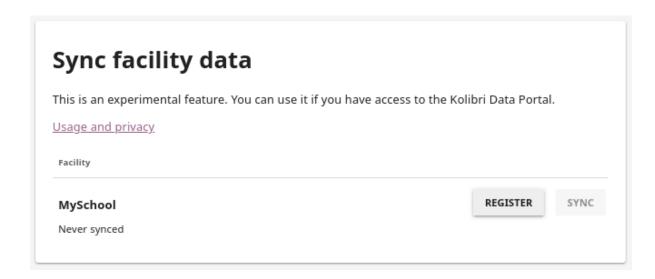


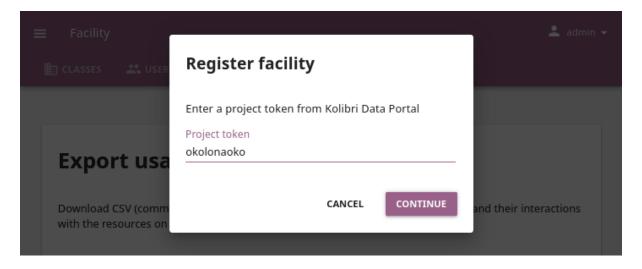
Fig. 8: Browse for the CSV file.

Import users								
Summary of changes if you choose to import:								
	Updated	Added						
Users	12	0						
Classes	3	3						
ВАСК	IMPORT							

Fig. 9: Review the changes in users and classes.



- 1. Click the REGISTER button.
- 2. Enter the **project token** and click the CONTINUE button.



3. Click the SYNC button to synchronize the data from your facility with the project on **Kolibri Data Portal**.



Be sure to follow the guidance of your **Kolibri Data Portal** project administrator on the frequency of sync-ups that you need to perform.

3.6 Channels and Resources

Note: To manage Kolibri channels and resources you must have the appropriate permissions.

Kolibri **Channel** is a collection of educational resources (video, audio, document files or interactive apps) prepared and organized by the channel curator for their use in Kolibri. You can import and export channels in Kolibri from the **Channels** tab of the **Device** dashboard.

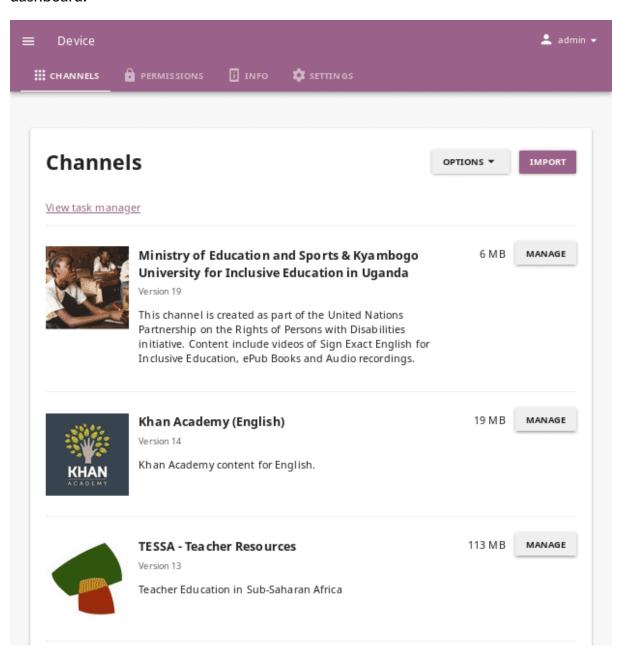


Fig. 10: Kolibri channels in the Device > Channels tab.

Each Kolibri channel has its own **token** in Kolibri Studio³⁸. You can freely view and browse resources to import from the **public** channels in Kolibri, but in order to *import* resources from private or unlisted channels, you will need the **channel token from the** resources curator who assembled it.

Note: The term **Channel ID** was valid for Kolibri versions up to 0.6, while from the Kolibri version 0.7 onward, we started using exclusively the term **token** to uniquely designate each channel.

Warning: When you *use the Terminal or command prompt* to import channels in Kolibri from the command line, you still must use the **32 digit channel ID**, as the command will not work with the token. Make sure to receive the correct channel ID from the person who curated the channel you need to import, or refer to Kolibri Studio user guide³⁹ how to find it in Studio user interface, if you have channel editor access.

3.6.1 Kolibri Task Manager

You can start various resource management tasks (import, export, deletion, update, etc.) in Kolibri and observe their progress in the *task manager* page. Each time you start a task, Kolibri will display the **Tasks** page, and depending on your workflow, you may have some *Finished*, *In-progress*, *Canceled* or tasks *Waiting* in the queue.

- Use the CLEAR button to clear single tasks.
- Use CLEAR COMPLETED to delete all the tasks from the list.
- Click the Back to channels link to navigate away from the Tasks page to the Device
 Channels tab.
- On top of the Device > Channels page you will see a summary of the current tasks.
 Click the View task manager link to return to the Tasks page with the detailed information.

³⁸ https://studio.learningequality.org/accounts/login/

³⁹ https://kolibri-studio.readthedocs.io/en/latest/share_channels.html

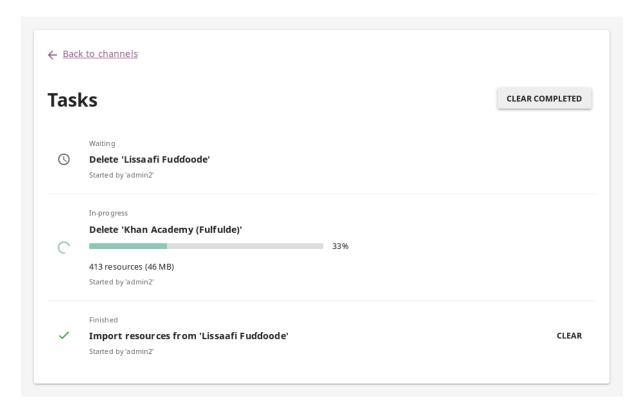


Fig. 11: Kolibri task manager.

3.6.2 Import Channels and Resources into Kolibri

Warning: Important: You cannot import your own files (videos, documents, etc.) as learning resources directly into Kolibri from your computer. Kolibri can **only** import resources from:

- already curated channels on Kolibri Studio⁴⁰, if the computer running Kolibri is connected to internet
- another device in the same local network through peer import

OR

 an external storage drive (USB or hard drive) where channels have been previously exported to from another Kolibri installation, if the computer running Kolibri is not connected to internet

To import your own files for use in Kolibri, you need to register at Kolibri Studio⁴¹ site (it's free), and build your own channel that you can subsequently import into Kolibri. Read more about how to do this in our Kolibri Studio user guide⁴².

⁴⁰ https://studio.learningequality.org/accounts/login/

⁴¹ https://studio.learningequality.org/accounts/login/

⁴² https://kolibri-studio.readthedocs.io/en/latest/index.html

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

To import resources into Kolibri, follow these steps.

- 1. Click IMPORT in the Channels tab on the Device page.
- 2. Choose the source option: **Kolibri Studio**, **Local network or internet**, or **Attached drive or memory card**.

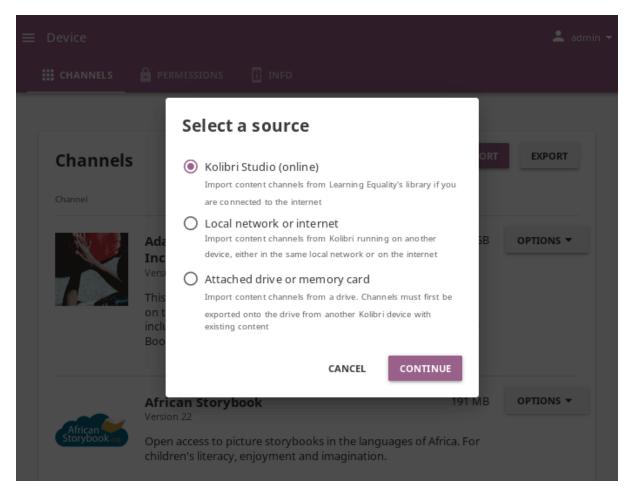


Fig. 12: Select a source to import Kolibri channels.

3.6.2.1 Import from Kolibri Studio

If the computer where Kolibri is running has an Internet connection with the sufficient bandwidth, follow these steps to import resources channels.

- 1. Choose option *Kolibri Studio*, click *CONTINUE* and you will be able to see all the available **public** resources channels.
 - Channels from which you have already imported some or all resources onto your device will have the (on device) icon.

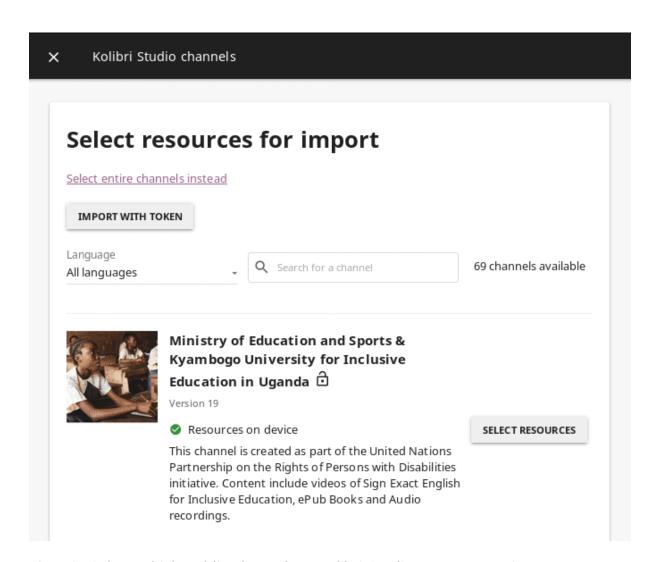


Fig. 13: Select which public channel on Kolibri Studio you want to import resources from.

- Private channels have the (unlisted channel) icon.
- 2. Click SELECT RESOURCES for the desired channel, and wait for Kolibri to load the channel information and the topic tree.

Warning: This could take some time for big channels. Please be patient, as Kolibri needs to retrieve a lot of information to display.

- 3. In the following page you will see all the details for the selected channel: description, version, total size and number of learning resources, with the information weather you have some of the resources from that channel already imported on the local device.
- 4. Click the topics links to browse through the channel resources. Use the *Select all* checkbox to import all the resources in the channel, or select only certain topics or resources. As you keep selecting, you will see the total number and size of *resources selected* at the bottom of the page.
- 5. Click the IMPORT button once you finish selecting all the desired resources.
- 6. You will see the import progress in the **Task manager** page. Once the import concludes, the newly imported channel and resources display on the **Channels** page.

Import Entire Channels

To import entire channels instead of a selected resources, follow these steps.

- 1. Click the **Select entire channels instead** link above the list of public channels in Kolibri.
- 2. Use the checkboxes to select the channels you want to import in full. As you keep selecting, you will see the total number and size of *channels selected* at the bottom of the page.
- 3. Click the IMPORT button once you finish selecting all the desired channels.

Warning: You can also use the *Select all on page* option, but beware that it will require several hundreds of gigabytes on your hard drive, and likely prolonged import times.



Ministry of Education and Sports & Kyambogo University for Inclusive Education in Uganda



Version 19

This channel is created as part of the United Nations Partnership on the Rights of Persons with Disabilities initiative. Content include videos of Sign Exact English for Inclusive Education, ePub Books and Audio recordings.

	Resources	Size
To tal size	338	3 GB
On your device	3	6 MB

Ministry of Education and Sports &...

- Se lect all
- Audio-Visual Materials
- Audio Materials

3 of 166 resources on your device



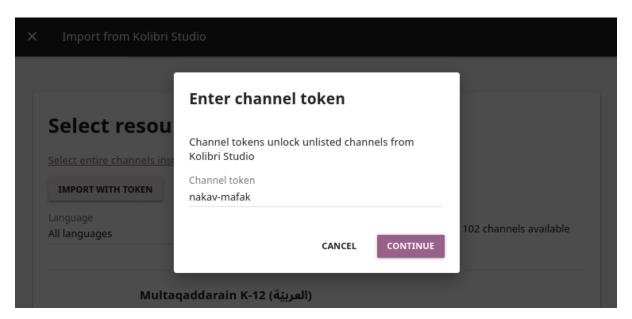
Visual Materials

3 resources selected



Import with Token

- 1. If you need to import resources from a **private/unlisted** channel, click on **Import** with token button above the channel list.
- 2. Enter the channel token received from the channel curator on Kolibri Studio.



- 3. Click CONTINUE to unlock the channel, or CANCEL to exit.
- 4. Proceed to select and import channel topics and resources as for the public channels.
 - Unlisted or private channels in the list are indicated with the (unlisted channel) icon.

Warning: Unlisted channel **must be published** on Studio before the token can be used to import it.

Import More Resources

To add more learning resources from a channel that you previously imported resources from, follow these steps.

- 1. Click the MANAGE button for the desired channel.
- 2. Click IMPORT MORE.
- 3. Repeat the selection procedure from above.

Import Channel Collection

Channel collection is a package of multiple Studio channels all associated with its unique **collection token**. You can use a collection token to import multiple channels at once in Kolibri, instead of importing channels with their individual tokens. To import channel collection, follow these steps.

- 1. Click the **Select entire channels instead** link above the list of public channels in Kolibri.
- 2. Enter the **collection token** received from the colection curator on Kolibri Studio.
- 3. Click CONTINUE to unlock the collection, or CANCEL to exit.
- 4. Proceed to select and import channels.

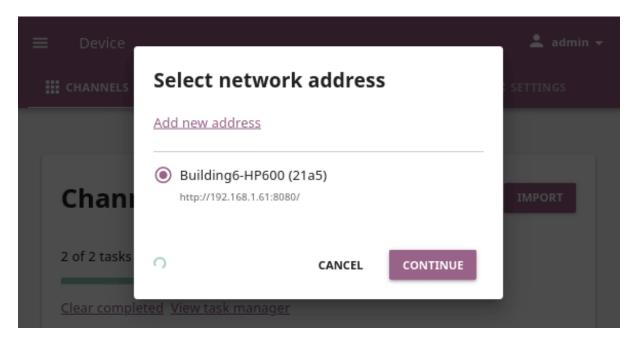
Note: Once import has finished, you will not see the *collection*, but just the channels it unclocked, listed among the others imported on the device.

3.6.2.2 Import from a Local Network or Internet

You can also import resources from a different device running Kolibri in your same local network, or even from a Kolibri server hosted outside your LAN, provided you know its exact IP address. This feature is useful for when you have:

- a larger country- or region-level Kolibri server outside your LAN, but with resources specific to your implementation requirements
- various instances of Kolibri servers in your local network, in order to support a high number of client (learner) devices

Note: Kolibri will try to automatically detect other instances (*peers*) running in the same LAN, and you will see a spinning loader while it is searching. When the detection is successful, you will be able to select these Kolibri instances and import resources from them.

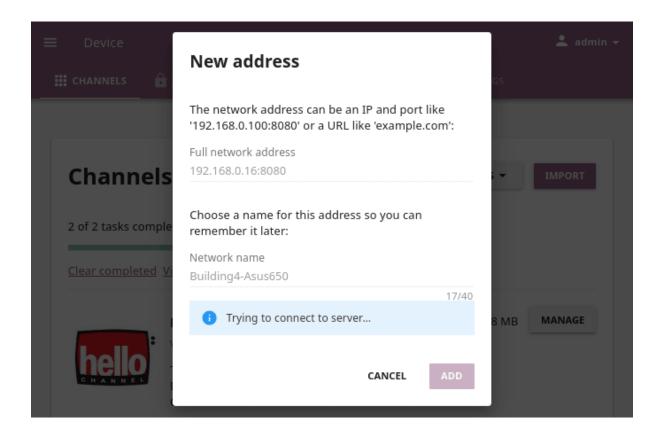


Follow these steps to import from a local network.

- 1. Choose option Local network or internet, and click CONTINUE.
- 2. Click Add new address link to add a new network address.
- 3. Input the full network address, and assign a name for this network. Don't forget to add the correct port if different from the default one 8080. You can use either the IP address or the domain name.
- 1. Click ADD to save this address to your device settings. If you later decide to delete it, use the link *Forget*.
- 2. Click CONTINUE and follow the same steps for selecting topics and resources as for the *import from Kolibri Studio*.

Warning:

- Beware that active firewalls on your devices could cause:
 - inability to be discovered by peers
 - inability to discover other peers



- ability to be discovered, but not be available for import
- On Windows 10 you need to explicitly allow both Python and kolibri.exe
 processes through the firewall, to be able to add a peer for import. Autodiscovery might still not work, but you will be able to add the peer IP manually
 and import resources.
- This feature was introduced in Kolibri version 0.11, and all the server devices to be used for this type of resources import must have the Kolibri version 0.11 or later running.

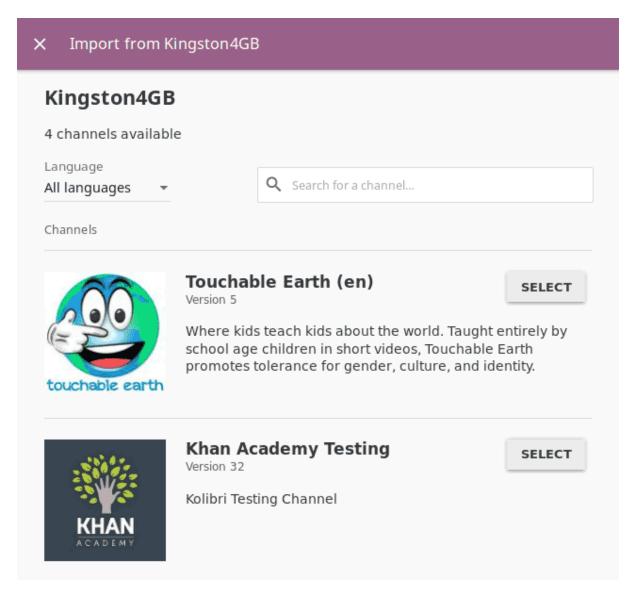
Tip: If want to *allow peer import of your private channels*, which means that those channels will be visible and available for import on other peer devices in the same network, make sure to enable that option in the **Device > Settings**.

3.6.2.3 Import from a Local Drive

If the computer where Kolibri server is running does not have access to Internet or has insufficient bandwidth, you have the option to receive resources channels stored on an external drive (USB stick or hard disk). Follow these steps to import resources channels.

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- 1. Connect the external USB drive to your computer.
- 2. Choose option for Attached drive or memory card, and click CONTINUE.
- 3. Kolibri will automatically detect and display the drive(s) with available Kolibri resources files.
- 4. Select the drive where the desired channel is stored, and click CONTINUE.
- 5. Click SELECT for the desired channel, and follow the same steps for selecting topics and resources as for the *import from Kolibri Studio*.



3.6.3 Update Channels

Public channels on Kolibri Studio are periodically updated from their original sources. Private and unlisted channels that you have on your local Kolibri device may also have changed since you first imported them. You can update your local channels from Kolibri

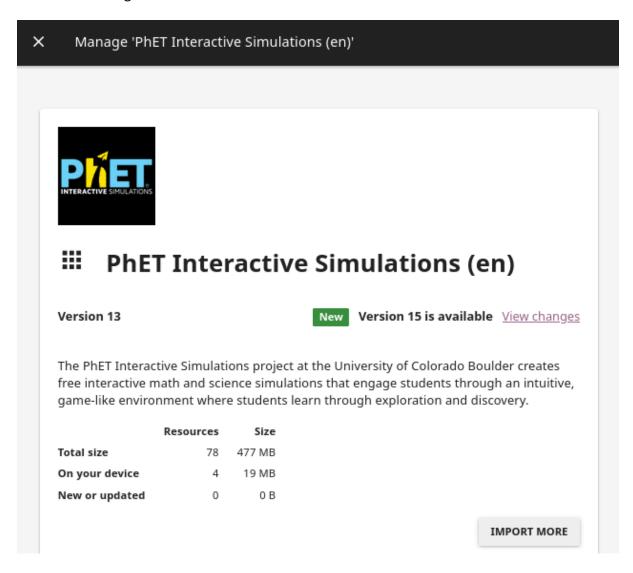
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Studio from online sources, from another updated device in your local network or from an external drive where the latest version of the channels have been *previously exported*.

Warning: It is recommended to schedule and perform channel updates only during periods of low activity on the server. Updating resources while server is receiving requests by client devices may cause errors or performance issues.

To update a channel to its latest version and import new resources into Kolibri, follow these steps.

- 1. Click the MANAGE button for the channel you want to update.
- 2. When a new channel version is available, you will see the notification. Click the *View changes* link.



3. On the following page you can see the summary of the changes: how many re-

sources will be added, deleted or updated if you decide to proceed.

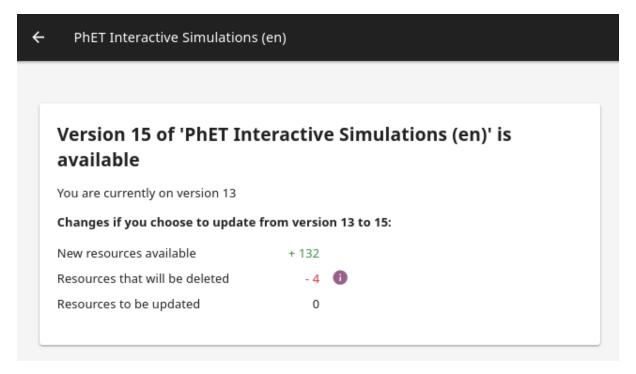


Fig. 14: Notification for the new version of the resources channel.

4. Click the UPDATE CHANNEL button, and then CONTINUE to confirm.

Warning: Use caution when updating channels that have been used to make **currently-active** *lessons* and *quizzes*. The structure and location of some resources inside the channel may have changed in the updated version, which can cause lessons and quizzes to not load correctly.

- 5. After the channel has been updated to the newest version, you will see the page with the list of all the topics that contain new resources. Proceed to select what you want to import, or check **Select all** to import everything at once.
 - Review the number and disk size of selected resources at the bottom and click the *IMPORT* button.
- 6. You will see the update progress in the **Tasks** page. Once the update concludes, the newly imported and updated resources will be available to use in Kolibri.

Warning: All import tasks can be cancelled before they are labeled as *Completed* in the **Task manager** page. However, beware that resources from canceled imports might not be fully available. If you plan to use the resources in lessons or quizzes,

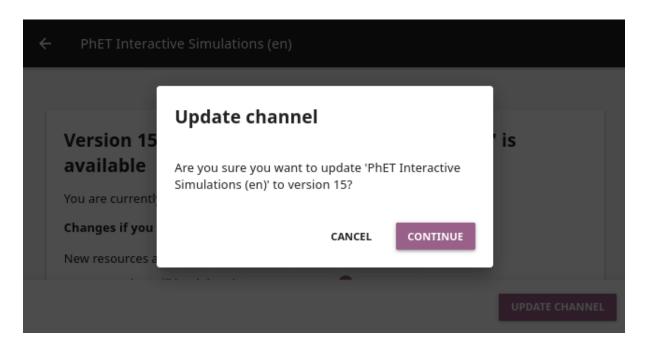


Fig. 15: Confirm that you want to update channel to the new version.

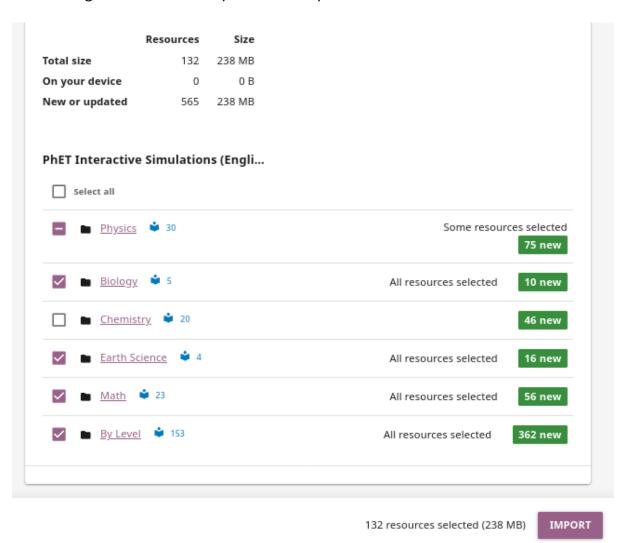


Fig. 16: Select the resources you want to update.

please check the state of their channel before you do, and use the *IMPORT MORE* button if necessary.

3.6.4 Edit Channel Order

To change the order in which channels are presented to learners on the **Learn > Channels** page, follow these steps.

- 1. Click the OPTIONS button and select the Edit channel order option.
- 2. In the **Edit channel order** page you can either:
 - Grab the (drag) button to reorder channels with the mouse (drag and drop).
 - Use the (up) and (down) buttons to reorder by keyboard navigation.

You will see a confirmation notification at the bottom every time you change the order of the channels.

3. Close the *Edit channel order* to return to **Device > Channels**, and review their order on the **Learn > Channels** page.

3.6.5 Export from Kolibri to Local Drive

If you have imported resources on one Kolibri device, and want to make it available on another computer where Kolibri is installed, you can export it either in full, or make a selection of the resources to be exported

Note: You must have an external drive (SD card, USB stick or hard disk) attached to your device.

3.6.5.1 Export Complete Channels

To export one or more full channels with all of its resources on a local drive, follow these steps.

- 1. Click the OPTIONS button and select the Export channels option.
- 2. Use the checkboxes to select single channels you want to export, or the *Select all on page* to export all of them in bulk. As you keep selecting, you will see the total number and size of *channels selected* at the bottom of the page.
- 3. Click the EXPORT button once you finish selecting, or CANCEL to exit.

- 4. Select the local drive (destination for the export) where you wish to export Kolibri resources, and click *CONTINUE*.
- 5. You will see the export progress in the **Task manager** page. Once the export is finished, safely disconnect the drive according to the recommended procedure for your operating system, and proceed to import channels on other devices.

Warning: Beware that exporting complete channels might require a lot of available space on your local drive.

3.6.5.2 Export Selected Resources from a Channel

To export only a selection of channel resources on a local drive, follow these steps.

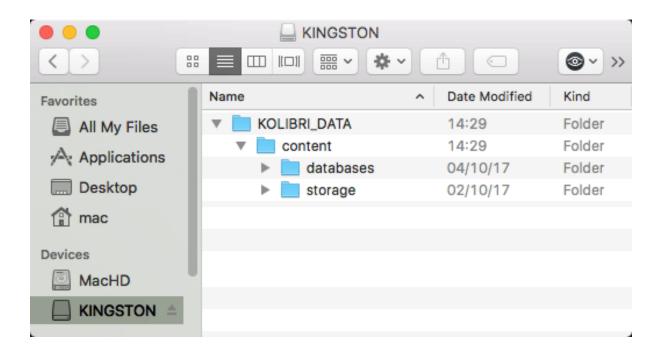
- 1. Click the MANAGE button for the channel from which you want to export resources, and wait for Kolibri to display the channel information and the topic tree.
- 2. Follow the same steps for selecting topics and resources in the topic tree as for the import procedure. As you keep selecting, you will see the total number and size of *resources selected* at the bottom of the page.
- 3. Click the EXPORT button once you finish selecting, or CANCEL to exit.
- 4. Select the local drive (destination for the export) where you wish to export Kolibri resources, and click *CONTINUE*.
- 5. You will see the export progress in the **Task manager** page. Once the export is finished, safely disconnect the drive according to the recommended procedure for your operating system, and proceed to import channels on other devices.

Note: The above procedures copy the channel databases and resources from the content folder located inside the .kolibri folder on your device's hard disk, and place them in the KOLIBRI_DATA folder on the selected local drive. This structure is recognized by the **Import from local drive** command.

3.6.6 Delete Channels

3.6.6.1 Delete Complete Channels

To delete one or more full channels with all of its resources from your device, follow these steps.



- 1. Click the OPTIONS button and select the **Delete channels** option.
- 2. Use the checkboxes to select single channels you want to delete, or the *Select all on page* to delete all of them in bulk. As you keep selecting, you will see the total number and size of *channels selected* at the bottom of the page.
- 3. Click the *DELETE* button once you finish selecting, or *CANCEL* to exit without deleting the channel.
- 4. If you are certain you want to proceed, click the *DELETE* button again in the **Delete** channel confirmation window.
- 5. You will see the delete progress in the **Task manager** page. Once the delete task is completed, the channel(s) will not be listed in the **Channels** tab on the **Device** page.

3.6.6.2 Delete Selected Resources from a Channel

To delete only a selection of channel resources from your device, follow these steps.

- 1. Click the MANAGE button for the channel from which you want to delete resources, and wait for Kolibri to display the channel information and the topic tree.
- 2. Follow the same steps for selecting topics and resources in the topic tree as for the import procedure. As you keep selecting, you will see the total number and size of *resources selected* at the bottom of the page.
- 3. Click the *DELETE* button once you finish selecting, or *CANCEL* to exit without deleting the channel.
- 4. If you are certain you want to proceed, click the *DELETE* button again in the **Delete channel** confirmation window.

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5. You will see the delete progress in the **Task manager** page. Once the delete task is completed, the selected resources will not be present in the topic tree of the channel.

3.7 Device

You can edit device configuration settings in Kolibri from the **Settings** tab in your **Device** dashboard. Remember that you can also configure *Facility* settings.

Note: To manage device settings you must have the appropriate permissions.

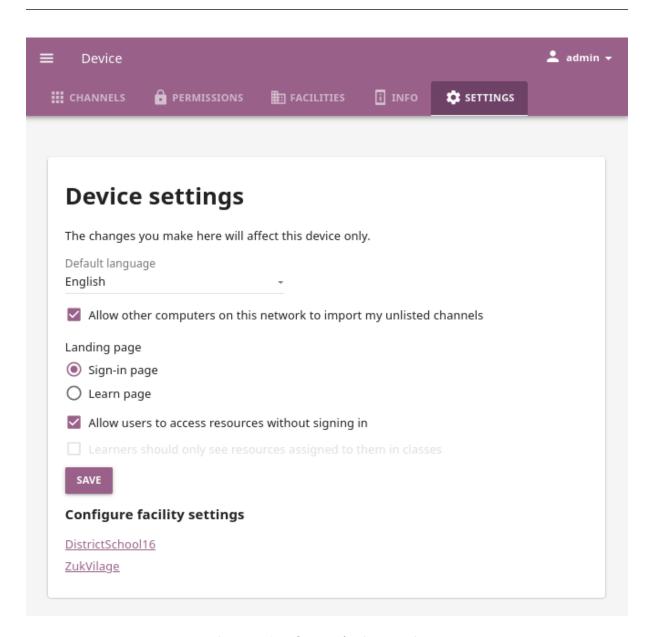


Fig. 17: Configure device settings.

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Whenever you change any of the device options, be sure to click the SAVE button to apply the changes.

3.7.1 Set Default Language

The language you have chosen during the *Initial Setup* will be set as the **default language** for all users who access Kolibri on the server device.

If you want to select a different default language, use the drop-down menu. You can set Kolibri to display in the language defined by the browser content settings, or in any of the *currently supported languages*.

Note: All users will still be able to *change to their own language of preference* from the user menu options.

3.7.2 Allow Peer Import

If you have imported resources from an unlisted channel on Kolibri Studio, but you do want to make them available for *import to other Kolibri server devices* (*peers*) in your local network, you can allow it by checking the **Allow other computers on this network to import my unlisted channels** checkbox.

If you prefer to keep those resources available only from your own device, be sure to keep that option unchecked.

3.7.3 Set Default Landing Page

You can configure the default landing page for learners to be the Kolibri **Sign-in page** or the **Learn** page.

The first option is recommended when you want to encourage the learners to always start the session in Kolibri with their username (and password, if required) in order to retain the learning progress data. In this case you can also:

- Leave unchecked the **Allow users to access resources without signing in** checkbox, if you want to restrict guest browsing and allow learners to access Kolibri only if they sign-in.
- Check the **Learners should only see resources assigned to them in classes** checkbox if you don't want to allow free browsing of resources available on your device.

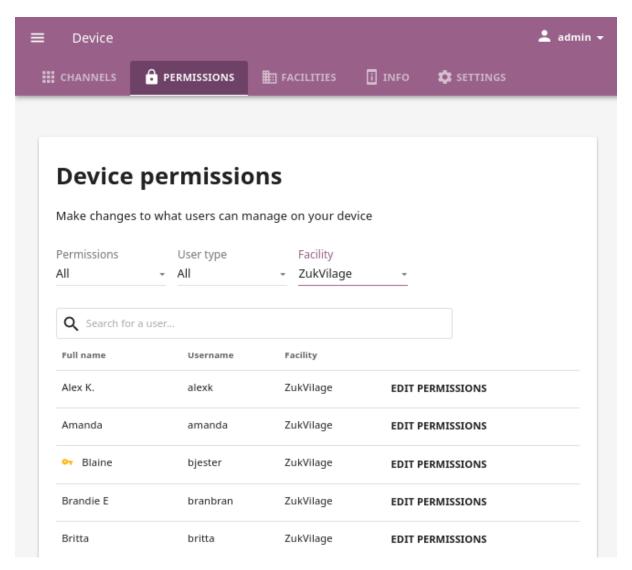
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In this case learners will only see the **Learn > Classes** tab with quizzes and lessons that they have been assigned when they sign-in to Kolibri, and the **Channels** and **Recommended** tabs will not be visible.

If your device is located in a less formal learning facility setting (like a library or a community center), where you are not tracking individual learning progress, or you want to encourage self-exploration of channels and resources available on Kolibri, use the **Learn** page as the default landing page.

3.8 Permissions

You can assign additional permissions to Kolibri users which will provide them access to more features compared to their *user roles*. To manage permissions for Kolibri users, use the **Permissions** tab in the **Device** dashboard.



3.8 Permissions

Tip: Use filters to find users more efficiently, you can filter users by current **Permissions**, **User type** or **Facility**.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

3.8.1 Permission to Manage Channels and Resources

To grant permission to another user to manage channels and resources in Kolibri, that is to import, export and delete them from the device, follow these steps.

- 1. Click EDIT PERMISSIONS for the chosen user.
- 2. Under **Device permissions** activate the option **Can manage resources on this device**
- 3. Click SAVE CHANGES to apply and finish.

Device permissions



SAVE CHANGES

CANCEL

The users who have been granted the permissions to manage content channels will have a black key indicator in front of their name, and will be able to see the **Device** dashboard with the **Channels** tab.

3.8.2 Super Admin Permissions

To grant **super admin** permissions to another user, follow these steps.

- 1. Click EDIT PERMISSIONS for the chosen user.
- 2. Activate the option Make super admin.
- 3. Click SAVE CHANGES to apply and finish.

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← Abby L.

Abby L.

abbyl Username User type Admin facility Facility



Make super admin 🗪





- · Has all device permissions and can manage device permissions of other users
- · Has admin permissions for all facilities on this device

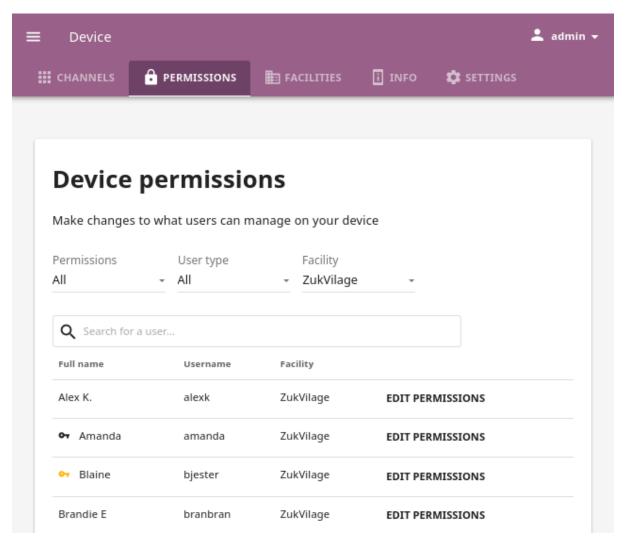
Device permissions



SAVE CHANGES

CANCEL

The users who have been granted the **super admin** permissions will have a yellow key indicator in front of their name, and will be able to see the **Device** dashboard with both the **Channels** and **Permissions** tabs.



3.9 Facilities

You can import, sync and remove the facilities on your Kolibri device from the **Facilities** tab in your **Device** dashboard.

Note: To manage facilities on a given device, you must have the **super admin** permissions.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

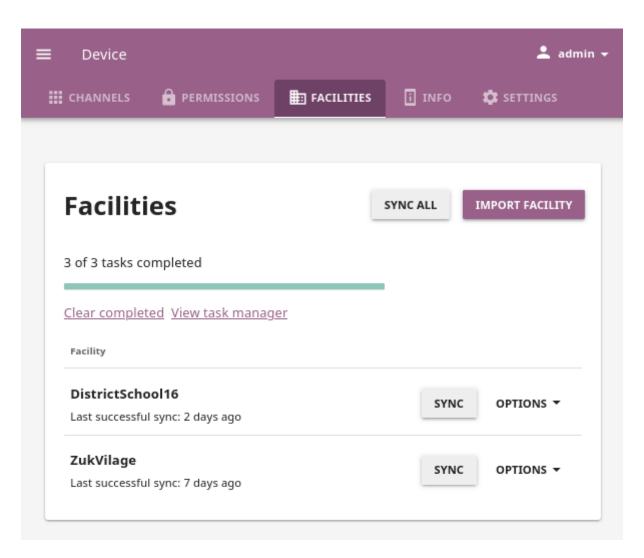


Fig. 18: Manage facilities on a device.

3.9.1 Import Facility

If you are part of a wider learning environment (for example when several learning facilities like schools or community centers are managed by one central organization), and your device is used to store the data from other facilities that are offline, you must first import those facilities. Once you have imported the facility on your device, you can periodically connect to their local network and sync the learner progress data.

To import a facility on your device, follow these steps.

- 1. Click the *Import facility* button.
- 2. Any device that has Kolibri running in the local network should appear in the **Select network address** window.

Select the device and click the Continue button.

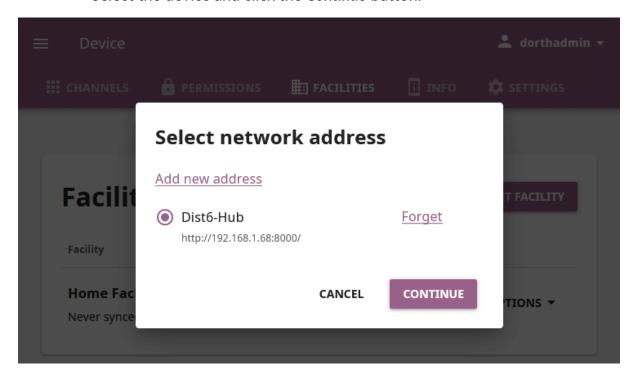


Fig. 19: Select the network address of the device from which you want to import a facility.

Note: If you do not see the address of the device listed, but you know the IP address, you can add it manually. Click the *Add new address* link, and fill in the required information.

- 3. **Select facility**. If there are several facilities on the source device, select the one you want to import.
- 4. **Enter admin credentials**. The credentials (username and password) you provide in this step must be either those for the **facility admin** of the facility you are import-

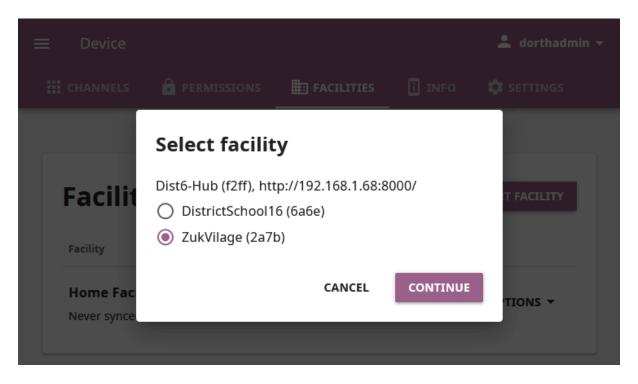


Fig. 21: Select the facility you want to import.

ing, or for the **super admin** of the device you are importing from.

- 5. Wait for the importing facility task to complete. It may take some time, so please be patient.
- 6. When the import process is completed click the *Back to facilities* link and you will see the new facility on the list.

3.9.2 Sync Facility

You can use the **Sync facility** feature for a variety of needs in both offline and online settings.

Warning: When syncing data between devices in the local network you must make sure that the same channels and resources are present on all the devices. If they do not have the same learning resources, coaches and learners will not be able to interact with lessons and quizzes correctly.

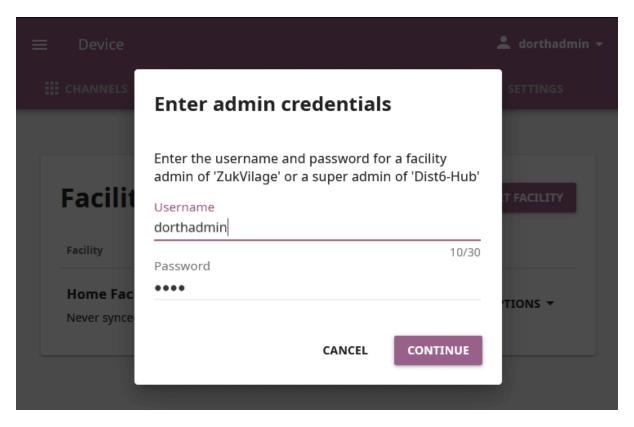


Fig. 22: Enter admin credentials.

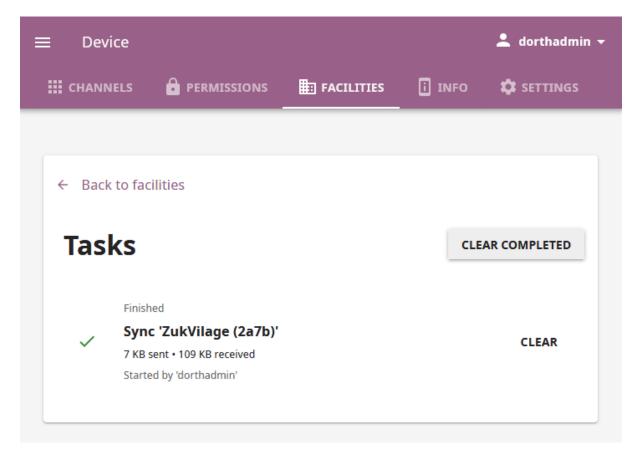


Fig. 23: Facility is successfully imported on your device.

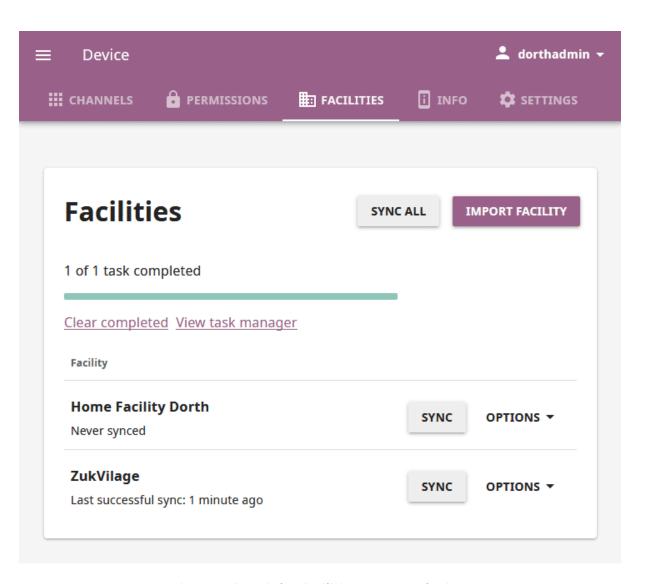


Fig. 24: List of the facilities on your device.

1. Roving Admin scenario

- Kolibri is installed on the central server for the Kolibri implementation.
- Kolibri is installed on all learner devices along with the facility and resources from the central server, which are then distributed amongst learners.
- Admin travels to the communities along with the central server, updates the resources on learner devices, and syncs learner data with the central server.

Syncing data

- At a designated interval, an administrator goes out to communities with the central server device for the Kolibri implementation. This device should be set up to create a WiFi hotspot, or be paired with a portable WiFi router (does not need to be internet enabled), to allow the learner devices to connect to it for peer-to-peer syncing.
- The admin physically accesses the learner devices and connects them to the WiFi network, syncs data to the X device, and imports new learning resources if needed.

2. Admin at Kolibri hub

- Kolibri is installed on a central server for the Kolibri implementation.
- Kolibri is installed on all learner devices and loaded with the facility and resources from the central server, and then distributed amongst learners.
- Learners periodically visit the Kolibri hub where an Admin syncs their devices to the central server and imports new resources onto their devices.

Syncing data

- The learner brings their device to the Kolibri Hub.
- The admin physically accesses the learner devices and connects them to the WiFi network, syncs data to the device, and imports new learning resources if needed.

Read our Implementation models for distance learning with Kolibri v0.14⁴³ for more details to consider around the facility syncing strategies.

To sync classes, groups, learner progress, and all facility data with a device from which you previously imported it from, follow these steps.

- 1. Click the SYNC button for the desired facility.
- Any device that has Kolibri running in the local network should appear in the Select network address window. Select the network address of the device you want to sync with.
- 3. Syncing process will start immediately and you will see the task progress bar in the **Facilities** page. When the sync process is completed you can open the task

⁴³ http://le.fyi/014-models

manager and review the size of the sent and received data.

Warning: Firewals may impede your ability to see other devices in your local network, or add them as source. If you are unable to see other devices, make sure to:

- disable the firewalls on all the devices that you need to sync
- restart Kolibri for broadcast to take effect

3.9.2.1 Sync with Kolibri Data Portal

If your Kolibri facility is part of a larger organization that tracks data on the **Kolibri Data Portal**, you can register and sync from **Facilities** page, same as from **Facility > Data** page.

- 1. Click the *OPTIONS* button and select the **Register** option, to *register your facility* with the Kolibri Data Portal (you must provide the project token).
- 2. Click the SYNC ALL button to sync all registered facilities to the Kolibri Data Portal.

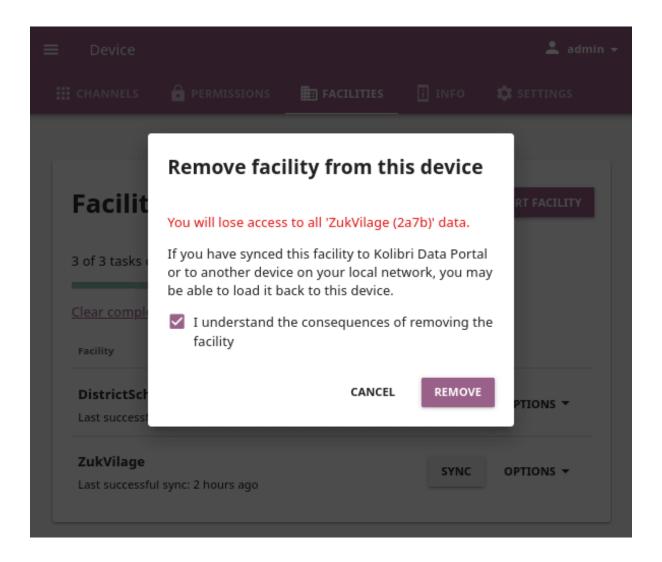
Warning: Kolibri Data Portal (KDP) is a new feature that is not yet broadly released. We are currently providing access to KDP to organizations on a contractual basis, and ultimately planning to offer this as a paid service by Learning Equality.

3.9.3 Remove Facility

To remove a facility from the device, follow these steps.

- 1. Click the OPTIONS button on the right edge of the desired facility.
- 2. Select the **Remove** option.
- 3. Click the *REMOVE* button in the confirmation window to proceed, or *CANCEL* to exit.

Warning: When you remove a facility you will loose all its data. However, if you have previously synced it to another device or to the Kolibri Data Portal, you should be able to recover the removed facility data.



3.10 Device Info

3.10 Device Info

To view detailed info about the device where Kolibri is running, use the **Info** tab in the **Device** dashboard. This information will be useful in case you need to report an issue with Kolibri on the *Learning Equality Community Forums*.

- 1. Click the **Show** link to open the Advanced device info.
- 2. Make note or copy the following device details to clipboard.
 - Server IP/URL(s)
 - Kolibri version
 - Operating system
 - Installer type
 - Database path
 - Device name
 - Free disk space
 - Server time
 - Server timezone

3.11 Troubleshooting

3.11.1 Troubleshoot Network Issues

- 1. Can you access Kolibri when you type http://127.0.0.1:8080 in the address bar of the browser?
- 2. Can you access anything from the *external IP* of the device running Kolibri **FROM** the device itself? Read more information *about IP addresses*.
- 3. Can you ping the external IP address from another device on the network? For example, if Kolibri is on a device/computer with IP address 192.168.0.104, type this in the Terminal or Command prompt:

```
ping 192.168.0.104
```

3.11.1.1 Firewalls

If you are having trouble connecting to Kolibri from other computers, your firewall might be blocking access.

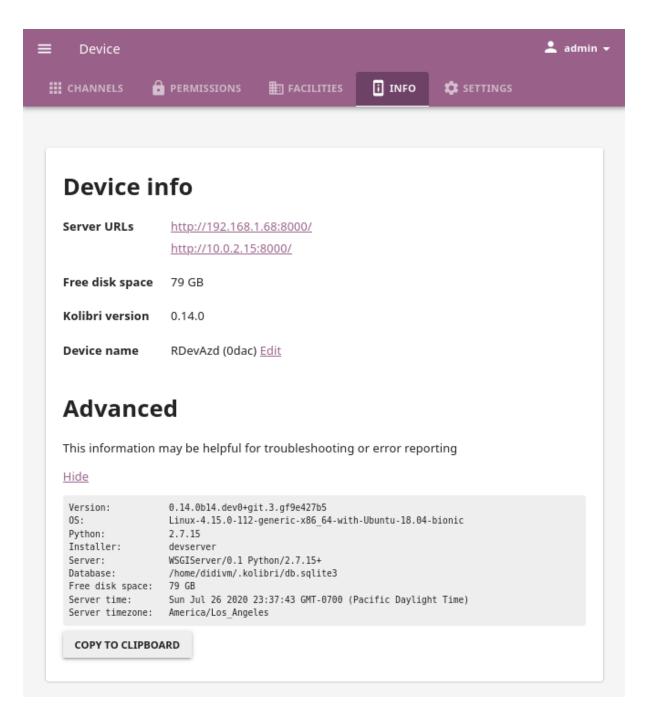


Fig. 25: Find out the extended device info in the Device > Info tab.

Windows systems often come with firewalls bundled and enabled, and this may interfere with running Kolibri. That said, you probably want to keep your firewall enabled for security reasons, especially if the server is connected to the public internet.

You can try temporarily disable your firewall to see if it helps with connecting to Kolibri. If so, you'll want to turn the firewall back on and then create a exception rule for Kolibri to allow access.

3.11.2 Malformed database

In case you receive the database disk image is malformed error in Terminal, it does not mean that the database cannot be fixed. The error occurs in cases where Kolibri has been shutdown uncleanly, for instance due to a power outage or a software exception.

Tip: The sqlite3 command is necessary. This can be installed with sudo apt install sqlite3 on a Debian-based system.

1. Open a terminal and change the current working directory to your Kolibri's home folder. Keep the terminal open and continue with the rest of the commands.

```
cd ~/.kolibri
```

2. Create a new directory and save the old database.

```
mkdir -p malformed

cp -b db.sqlite3* malformed/
```

3. Create a new database and move it to the active location.

```
sqlite3 db.sqlite3 .dump | sqlite3 fixed.db
mv fixed.db db.sqlite3
```

4. Remove temporary database files.

```
rm -f db.sqlite3-* job_storage.sqlite3* notifications.sqlite3*⊔

→process_cache/cache.db
```

5. Start Kolibri.

For further assistance, please report the issue on our Community Forums⁴⁴, stating the operating system and Kolibri version.

⁴⁴ https://community.learningequality.org/

3.11.3 Corrupted database

The instructions in *Malformed database* apply only to *malformed* databases, which is a simple form of database corruption that has been reported fixable in all cases. If those steps did not work, or you do not see the database disk image is malformed error, your database is more severely corrupted.

If your SQLite3 version is 3.29 or newer, you can use the .recover command⁴⁵ to restore other types of database corruption. This can happen if Kolibri is terminated abruptly or if your storage media fails.

Tip: You can see your SQLite3 version by running sqlite3 --version from command line. If your database is corrupted but your SQLite3 is too old to run .recover, consider copying your db.sqlite3 file to a different system with a new SQLite3.

To apply .recover on a broken database, open your Terminal and run the following commands (the sequence is similar to above where you used .dump):

1. Open a terminal and change the current working directory to your Kolibri's home folder. Keep the terminal open and continue with the rest of the commands.

```
cd ~/.kolibri
```

2. Create a new directory and save the old database.

```
mkdir -p malformed
cp -b db.sqlite3* malformed/
```

3. Apply the .restore command to the database and move the restored database to the active location. Check the command line outputs for potential errors.

```
sqlite3 db.sqlite3 .recover | sqlite3 fixed.db
mv fixed.db db.sqlite3
```

4. Remove temporary database files.

```
rm -f db.sqlite3-* job_storage.sqlite3* notifications.sqlite3*

→process_cache/cache.db
```

5. Start Kolibri.

For further assistance, please report the issue on our Community Forums⁴⁶, stating the

⁴⁵ https://sqlite.org/cli.html#recover

⁴⁶ https://community.learningequality.org/

operating system and Kolibri version.

3.11.4 Videos are not playing

Make sure to check the *system requirements* to see if you can support video playback. If you encounter the error *No compatible source was found for this media* when you try to play videos in Firefox on Ubuntu for example, you must install the restricted extras package⁴⁷. If you are still unable to view videos in open source browsers like Chromium or Firefox, try using Google Chrome.

Please report any issues on our Community Forums⁴⁸, stating the operating system and browser you are using.

3.11.5 Antivirus

Some overzealous antivirus programs on Windows platform may preventively impede Kolibri or some of its components (for example python.exe) from running correctly. If that happens you need to add them to the antivirus exclusion list. Below steps refer to the program **Avast**, but should be similar in other antivirus applications.

- 1. Open Avast.
- 2. Click on **Protection** in the sidebar.
- 3. Click on Virus Chest.
- 4. Find the file python.exe in the list.
- 5. Right click on the file and select Scan.
- 6. If the scan is inconclusive the python. exe file is not infected with a virus.
- 7. Right click on the file and select Restore and add to exclusions.

3.11.6 Problems with import and export from USB drives

Kolibri needs read and write access to USB drives in order to import and export channels. There are several possibilities why you may encounter issues during this procedure.

User account does not have access:

 you installed Kolibri in your own environment running as a non-desktop user (for instance UWSGI)

⁴⁷ https://help.ubuntu.com/community/RestrictedFormats

⁴⁸ https://community.learningequality.org/

 you have upgraded Kolibri on Debian from a version prior to v0.10. Follow these instructions to change the ownership of Kolibri system service from one user account to another

- to grant access to USB drives to other accounts, refer to the documentation of your operating system
- Write access denied: Some USB drives will experience problems when they are unplugged from the computer in an *unclean* way. If you are denied access to write, look for options to *fix* or *repair* the file system.
- Data failures: Copying the data can take a long time. If you do not see the final success confirmation message after the copy apparently finishes, do not assume that the data has been imported or exported correctly. Restart the process instead, otherwise you risk inconsistent and malfunctioning data resources.
- Hardware life expectancy: SD and flash storage drives have a limited lifespan. Reading and writing large quantities of data, especially on older or models with smaller capacity, may produce data errors over time.

3.11.7 Locate Kolibri log files

When you report a problem with Kolibri, we may ask you to send us Kolibri **log** files to help us find out why is it not working or crashing.

Open the .kolibri/ folder inside the *Home* folder of the Kolibri server and locate the logs/ folder. You will be able to find these two files:

- kolibri.txt
- debug.txt

If the problem happened earlier than the dates in the above log, you can open the archive/ folder inside logs/ to find older log files:

• kolibri-YYYY-MM-DD.txt

Operating system	Location
Windows	C:/Users/ <your_username>/.kolibri/</your_username>
macOS	HD/Users/ <your_username>/.kolibri/</your_username>
Linux	/home/ <your_username>/.kolibri/</your_username>

Warning: On Linux and MacOS systems you will need to activate the *Show Hidden Files* option in your file browser, in order to view the .kolibri folder.

3.11.8 About IP addresses

• 127.0.0.1 IP address, or localhost, is device's own IP address. You can use it in the browser on the device where Kolibri is running to make sure it is working correctly.

- Aside from its own localhost⁴⁹ address, a device running Kolibri also has an external IP address like 192.*.*.* or 10.*.*.*, under which it is recognized by other devices in the same local network. That is the IP address that you need to use in the *browsers on client devices* (learner tablets or computers), to connect with Kolibri server.
- Kolibri by default runs on the port number 8080, but you can *change this setting* to meet your particular needs.
- So when you type the full IP address like http://192.168.1.1:8080 in the browser of a client device, you are telling it to: "Connect to IP address 192.168. 1.1 on port 8080 with the HTTP protocol, and display its content".

⁴⁹ https://en.wikipedia.org/wiki/Localhost

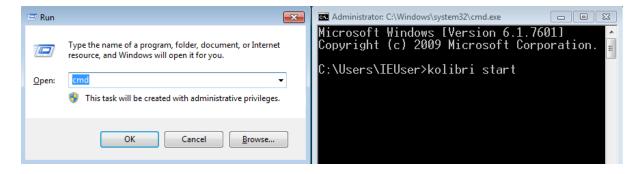
Chapter 4

Advanced Management

Access additional configuration options and ways to manage Kolibri from the command line.

4.1 Working with Kolibri from the Command Line

• In Windows you need to open the command prompt, for example by using the WIN + R shortcut, and then typing cmd.



- On macOS open Spotlight and type Terminal. You may also need to prefix the commands with python -m, for example python -m kolibri start.
- If you are running Kolibri with the .pex file, make sure to substitute the kolibri in below commands with the exact name of the file you downloaded preceded by ./. For example, to start Kolibri from the downloaded file kolibri-v0.14.pex, type ./kolibri-v0.14.pex start.

Warning: In the commands below, angle brackets and the text between them < . . . > are used to denote placeholders for you to modify. Make sure to replace them with your own information.

If you see errors in the prompt/terminal output while running the commands below, ask for help at our Community Forums⁵⁰, or file an issue on GitHub⁵¹.

4.1.1 Start/Stop Kolibri

In case you need to troubleshoot potential problems while running Kolibri, you may try to start it manually from the command line.

```
kolibri start --debug --foreground
```

```
kolibri stop
```

4.1.2 Import Channels from Internet

To import channels from Internet, run these two commands in sequence. The first downloads the channel database, and the second downloads the resources (videos, documents, etc.).

```
kolibri manage importchannel network <Channel ID> kolibri manage importcontent network <Channel ID>
```

For example (Channel ID without angle brackets < . . . >):

```
kolibri manage importchannel network a9b25ac9814742c883ce1b0579448337
kolibri manage importcontent network a9b25ac9814742c883ce1b0579448337
```

Warning: When you import channels from the command line, you still must use the 32 digit channel ID, as the *command will not work with the token*. Make sure to receive the correct channel ID from the person who curated the unlisted channel

⁵⁰ https://community.learningequality.org/

⁵¹ https://github.com/learningequality/kolibri/issues/new

you need to import, or refer to Kolibri Studio user guide⁵² how to find it in Studio user interface, if you have channel editor access.

4.1.3 Import Channels from Local Network

To import channels from another device on your LAN, run these two commands in sequence.

```
kolibri manage importchannel network <Channel ID> --baseurl <fullPrefixIP> kolibri manage importcontent network <Channel ID> --baseurl <fullPrefixIP>
```

For example:

```
kolibri manage importchannel network a9b25ac9814742c883ce1b0579448337 --baseurlu http://192.168.2.25:9090/
kolibri manage importcontent network a9b25ac9814742c883ce1b0579448337 --baseurlu http://192.168.2.25:9090/
```

4.1.4 Export Channels

To export Kolibri channels on a local drive in order to share it with another device, run these two commands in sequence. The first exports the channel database, and the second exports the resources (videos, documents, etc.).

```
kolibri manage exportchannel <Channel ID> /path/to/local/drive/KOLIBRI_DATA kolibri manage exportcontent <Channel ID> /path/to/local/drive/KOLIBRI_DATA
```

The path should be to a folder named KOLIBRI_DATA at the root of the local drive, so it will get picked up later for importing via the Web UI.

4.1.5 Reorder Channels

You can set the specific order for channels in the **Learn** page according to your preferences. Follow these steps.

• To view the current ordered list of channels, run the command:

⁵² https://kolibri-studio.readthedocs.io/en/latest/share_channels.html#make-channels-available-for-import-into-kolib

```
kolibri manage listchannels
```

The output will be something like:

```
      Pos
      ID
      Name

      ---
      --
      ---

      1
      95a52b386f2c485cb97dd60901674a98
      CK-12 Testing

      2
      a9b25ac9814742c883ce1b0579448337
      TESSA - Teacher⊔

      →Resources
```

• To set a position for a channel, run the command:

```
kolibri manage setchannelposition <Channel ID> <Pos>
```

Example with the above channels:

```
kolibri manage setchannelposition a9b25ac9814742c883ce1b0579 1

Pos ID Name
--- -- 1 a9b25ac9814742c883ce1b0579448337 TESSA - Teacher
--- Resources
2 95a52b386f2c485cb97dd60901674a98 CK-12 Testing
```

4.1.6 Delete Channels

To delete Kolibri channels on your local drive in order to free hard drive space on the device, run the following command.

```
kolibri manage deletechannel <Channel ID>
```

4.1.7 Create a New Super Admin

In case you need to create another **super admin** user, either to address additional need of managing facility, or if you lost the password for the old one, run the following command.

```
kolibri manage createsuperuser
```

You will be prompted to input the **Username** and **Password** and the new **super admin** user account will be created.

The full name for the new super admin user will be the same as the chosen username, and can be edited in the **Facility > Users** page, or the user profile.

4.1.8 Import and Export User Data from a CSV File

This feature is also available from the Kolibri user interface in the **Facility > Data** tab. It is recommended you read the *section of this guide which documents the feature*, especially the part about the *CSV format* before you try this command line utility.

4.1.8.1 Import from CSV

Execute the *dry-run* of the command to review the report containing the number of users and classes to be created, updated or deleted, and see the list of any potential errors.

```
kolibri manage bulkimportusers --dryrun my-school-users-2021.csv
```

Run the command and review that the changes are visible in the Facility dashboard.

```
kolibri manage bulkimportusers my-school-users-2021.csv
```

If the CSV file does not contain all the non admin users or classes currently in the facility, using the --delete flag will remove them during the import process.

```
kolibri manage bulkimportusers --delete my-school-users-2021.csv
```

4.1.8.2 Export to CSV

Run the following command to create a users_<date>_<time>.csv file.

```
kolibri manage bulkexportusers --overwrite --output-file=my-school-users-2021. 
 \hookrightarrowcsv
```

To export a CSV file with localized headers, use the --locale flag.

```
kolibri manage bulkexportusers --overwrite --output-file=lista-estudiantes-2021. 
 \hookrightarrowcsv --locale=es_ES
```

4.1.9 Change User's Password

Run the following command to change the password for a user.

```
kolibri manage changepassword <username>
```

You will be prompted twice to input the new password for the user.

4.1.10 Delete Users Permanently

If you need to permanently delete a Kolibri user and all the data associated with their account, for example to ensure privacy rights according to GDPR, use the following command.

```
kolibri manage deleteuser <username>
```

Warning: This will permanently erase all the user data.

4.1.11 Export Data Logs

If the data logs export process from **Facility > Data** is taking a long time, use the following command to export logs from the terminal or command prompt.

```
kolibri manage exportlogs --log-type summary
kolibri manage exportlogs --log-type session
```

4.1.12 Backup and Restore Kolibri Database

Kolibri automatically creates a backup of the database with every version upgrade. If for some reason you need to make a manual backup, use the following command.

```
kolibri manage dbbackup
```

This command will create a time-stamped .dump file in the ./kolibri/backups folder that you can use to restore the database with the following command.

```
kolibri manage dbrestore --latest
```

To restore the DB from a specific .dump file, use the flag --select to see all that available sorted by date, and select the one you need.

```
kolibri manage dbrestore --select
```

Warning: This command is not intended for replication across different devices, but **only** for restoring on a single device from a local backup of the database.

4.1.13 Change the Location of Kolibri Channels Files

Kolibri channels may occupy a considerable amount of hard disk space over time. If you have concerns about running out of storage on your device, you can move the Kolibri channels to another drive.

Tip: If you have both SSD disk and HDD disk available on your device, it is recommended to install Kolibri on the SSD drive to allow faster access to the database, and move just the channels to the HDD drive.

To move the folders with Kolibri channels to another location, follow these steps.

1. Stop Kolibri.

```
kolibri stop
```

2. Create a new folder that will contain all the channels' files and resources on the destination drive.

```
kolibri manage content movedirectory <destination>
```

For example, if you created a new folder KolibriChannels on an external drive, run this command.

If you are on Windows, and the new folder KolibriChannels is on the drive F:, run this command.

kolibri manage content movedirectory F:\KolibriChannels

3. Restart Kolibri.

This command will move the 2 subfolders databases and storage, from their default location inside the .kolibri/content folder in your device's home directory, to a new location you specified in the command.

4.1.14 Change the Location of ALL Kolibri Files

If you want to change the directory where all of Kolibri's runtime files are located, together with the imported channels, you need to change the environment variable called KOLIBRI_HOME to the path of your choice.

If the variable is left unset, by default, Kolibri's runtime files and channels will be placed in your user's home folder, under the .kolibri subfolder.

Note: Adjusting this environment variable behaves differently than the movedirectory command above:

- Adjusting the environment variable will not automatically migrate over data. You
 need to copy the .kolibri folder manually to the new location.
- If you do copy the .kolibri folder, the channels will not be affected **if it had been previously set** using the movedirectory command.

There are many ways to set an environment variable either temporarily or permanently. To start Kolibri on **OSX or Linux** with a different home, follow these steps.

- 1. Stop the server.
- 2. Move the .kolibri folder to the new location.
- 3. Run the following in Terminal:

```
KOLIBRI_HOME=/path/to/new/home kolibri start
```

When you start the server again, all your files should be seamlessly detected at that location.

To change the environment variable KOLIBRI_HOME on Windows, follow these steps.

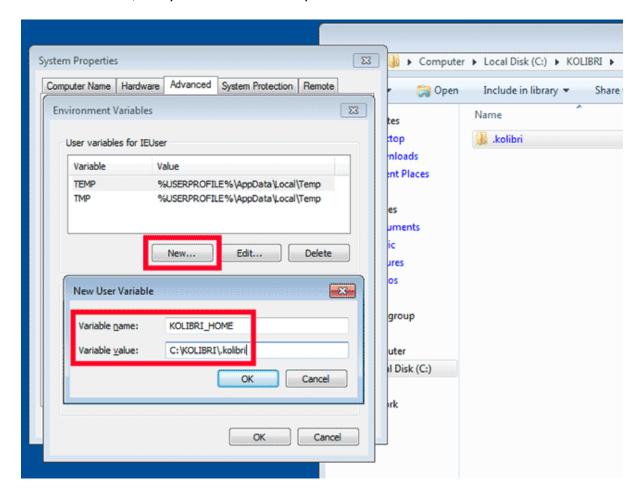
- 1. Stop the server.
- 2. Move the .kolibri folder to the new location.
- 3. Run the following in Command Prompt:

```
setx KOLIBRI_HOME "/path/to/new/home"
```

Restart the server, and your files should be seamlessly detected at the new location.

Alternatively, you can follow these steps in the GUI.

- 1. Go to **Computer > Advanced System Settings** and press the *Environment Variables* button.
- 2. Under **User Variables for...** press the *New...* button.
- 3. Input KOLIBRI_HOME in the **Variable name** field, and your new path in the **Variable value** field, and press *OK* on both open windows.



4. Restart Kolibri.

Other options that can be configured through the options.ini file.

4.2 Customize Kolibri Settings with the OPTIONS.INI File

Installing Kolibri generates a default options.ini file with all the sections and values commented out with the # character at the beginning of the line. To see the options. ini file, open the .kolibri folder inside the *Home* folder.

Warning: Some of the values in the options.ini file, especially in the sections [Cache], [Database], and [Server] can have serious effects on the performance of your Kolibri server. Do not edit them if you are not sure how they work!

4.2.1 Manage Server Ports

4.2.1.1 Run Kolibri from a different port

If you need Kolibri to start and run from a port different than the default 8080, add the section [Deployment], and the key HTTP_PORT with the value of your desired port, to the options.ini file.

```
[Deployment]
HTTP_PORT = 1234
# Substitute 1234 with your desired port number
```

Tip: If after setting the desired port in the options.ini file you still see Kolibri running from a different one, you probably have the environment variable KOLIBRI_HTTP_PORT from a previous installation, which takes precedence. Check the .bashrc file on Linux, or run the set command in Windows command prompt, to verify and correct if necessary.

4.2.1.2 Use different port to serve content

If you need Kolibri to serve content resources from a different port than the one server itself is running, add the section [Deployment], and the key ZIP_HTTP_PORT with the value of your desired port.

```
[Deployment]
ZIP_HTTP_PORT = 1234
# Substitute 1234 with your desired port number
```

Warning: If you experience problems accessing resources served from a different port on Windows, make sure to add a rule to allow it in the Windows Defender Firewall.

4.2.1.3 Enable port autodiscovery

To enable the autodiscovery of the port where Kolibri is running, set the key HTTP_PORT with the value None in the section [Deployment].

```
[Deployment]
HTTP_PORT = None
```

4.2.2 Allow Profiling of Requests

If you need to *profile server requests* to get a more detailed information about the Kolibri performance, add the following to the options.ini file.

```
[Server]
PROFILE = 1
```

4.2.3 Configure Supported Languages

You can configure Kolibri to display just a specific set of languages that your implementation supports, as opposed to the full list of languages Kolibri has been localized into. Edit the options.ini file to include the key LANGUAGES under the section [Deployment], with a comma separated list of intl_code language codes.

Below example will display only English, Gujarati, Hindi, Marathi and Telugu languages in the *language selector* window.

```
[Deployment]
LANGUAGES = 'en', 'gu-in', 'hi-in', 'mr', 'te'
```

Kolibri currently supports the following locales:

	I
Language	intl_code
English	en
Arabic	ar
Bengali	bn-bd
Bulgarian	bg-bg
Burmese	my
Chinese (simplified)	zh-hans
Chinyanja	nyn
Farsi	fa
French	fr
Fulfulde Mbororoore	ff-cm
German	de
Gujarati	gu-in
Hindi (India)	hi-in
Italian	it
Khmer	km
Korean	ko
Marathi	mr
Portuguese (Brazil)	pt-br
Spanish (Latin America)	es-419
Spanish (Spain)	es-es
Swahili (Tanzania)	sw-tz
Telugu	te
Urdu (Pakistan)	ur-pk
Yoruba	уо
Vietnamese	vi

4.3 Test Kolibri Server Performance

4.3.1 Benchmark

You can use the following command to collect information about the device where Kolibri server is running, and details about how much of its resources it is using. This command displays a snapshot of the server state at the time the command is executed, and its output will vary depending on the current server load. In case you suspect per-

formance problems, type this in the Terminal or Command prompt.

```
kolibri manage benchmark
```

The command will have an output similar to this:

```
Sessions
* Active sessions (guests incl):
* Active users in (10 min):
CPU
* Total processes:
* Used CPU:
                                    363
                                    29.0 %
 Kolibri CPU usage:
                                    0.0%
 Used memory:
                                    14660 Mb
  Total memory:
                                    15756 Mb
 Kolibri memory usage:
                                   216092 Kb
Channels
 Total Channels:
 Performance Test - Multiple Exercises Channel
  * Accesses:
                                    6800.77 s
  * Time spent:
   Accesses:
  * Time spent:
                                    0.00 s
 PhET Interactive Simulations (en)
   ' Accesses:
  * Time spent:
                                    980.78 s
Requests timing
                                    0.03 s
* Homepage:
 Recommended channels:
                                    0.01 s
 Channels:
                                    0.02 5
Device info
                                    0.11.0a5.dev+git.407.gbe90b0dcb
 05:
                                    Linux-4.9.0-8-amd64-x86 64-with-LinuxMint-3-cindy
Installer:
                                   devserver
batabase:
                                    /home/jose/.kolibri/db.sqlite3
 Device name:
                                    casa-pro
 Free disk space:
                                    45597 Mb
 Server time:
                                    2018-10-03 17:35:55.609641+02:00
  Server timezone:
                                    Europe/Madrid
```

Fig. 1: Command line output of the 'kolibri manage benchmark' command

Take a screenshot of the Terminal or Command prompt, or copy and paste the output in the community forum post.

4.3.2 Profile

In order to collect more than a current snapshot of Kolibri server performance, you can use the profiling command. When executed, the command will collect a series of

performance indicators every 10 seconds and save them in a CSV file. Type this in the Terminal or Command prompt.

```
kolibri manage profile
```

Tip: Command collects and saves the information 60 times by default. If you want to change this value, add the -num-samples flag with the desired number at the end.

```
kolibri manage profile --num-samples=100
```

Each log line contains this information:

- Date and time of each command execution
- Number of Kolibri active sessions (including guest sessions)
- Number of Kolibri logged users
- Number of Kolibri user interactions during the last minute
- Total percentage of CPU use
- Total memory use
- Total available memory
- Number of processes executed in the server
- Percentage of CPU used by Kolibri
- Percentage of memory used by Kolibri

To help us troubleshoot potential problems on your Kolibri server, locate and send us the KOLIBRI_HOME/performance/date_time_performance.csv file.

4.3.2.1 Profile Server Requests

If you have the [Server] section of the *OPTIONS.INI* file configured with PROFILE = 1, the above command will additionally perform a profiling of every request made by Kolibri server, and save the results in a second log file as KOLIBRI_HOME/performance/date_time_requests_performance.csv

Each log line contains this information:

- Timestamp
- Request path
- Time spent processing the request
- Memory (in KB) used by the Kolibri process when the request came in
- Memory (in KB) used by the Kolibri process when the response was sent

- CPU percentage used by the Kolibri process when the request came in
- CPU percentage used by the Kolibri process when the response was sent
- Flag indicating if the request is the slowest one since the analysis started

Warning: Profiling server requests can consume a lot of computer resources, and potentially slow it down. For this reason you need to explicitly allow it in the options.ini file. Without the PROFILE = 1 key, command will not profile server requests (but just the current server state), and it will not create the second CSV file.

4.4 Hard drive provisioning for multiple Kolibri servers

For the recommended procedure to install and provision several Kolibri server devices, refer to our *hard drive provisioning tutorial*.

Chapter 5

Coach your Learners in Kolibri

You can track progress of the **Learners**, create and assign **Lessons** and **Quizzes** to classes or learner groups from the **Coach** dashboard. The default view presents the list of **Classes** with their assigned coaches, and the number of learners enrolled in each class.

Click on a class to access the progress-tracking features and create lessons, quizzes and groups.

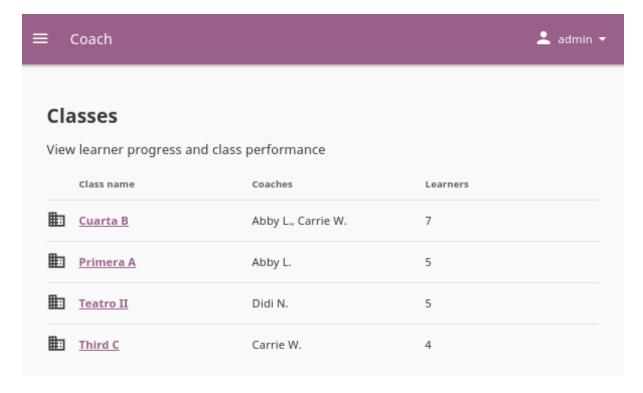


Fig. 1: Choose one of the classes from this view to access the Kolibri coach features.

Note: Kolibri progress tracking features are available by default in the *classroom model*,

5.1 Class Home 140

when learner devices are in the same local network as those used by coaches. However, in case of the at-home usage on personal devices, it is necessary to *sync facility data* between devices for coaches to be able to track learner interactions with resources that happen while they are outside of the local network.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

5.1 Class Home

On the **Class Home** tab you can see the overview of the class activity and track progress of the learners on lessons and quizzes assigned to them.

5.1.1 Quizzes

You can review the progress of learners on the assigned quizzes in the **Quizzes** block.

- Progress bar will indicate how many learners have started and completed the quiz.
- You can click on the progress bar to open the complete quiz data in the Reports tab.
- Click VIEW ALL to access the full list of notifications about quizzes (only the 3 most recent are displayed in the block).

Note: Quizzes were known as **Exams** in Kolibri versions prior to 0.12.

5.1.2 Lessons

You can review the progress of learners on the assigned lessons in the **Lessons** block.

- Progress bar will indicate how many learners have started and completed the lesson, and if they need help with some of the resources in it.
- You can click on the progress bar to open the complete lesson data in the Reports tab.
- Click VIEW ALL to access the full list of notification about lessons (only the 3 most recent are displayed in the block).

5.1 Class Home 141

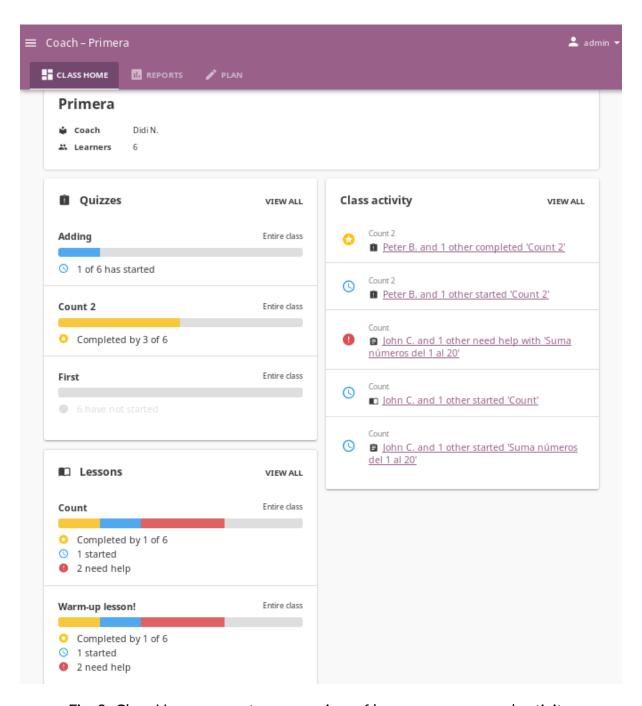


Fig. 2: Class Home presents an overview of learner progress and activity.

5.1.3 Class Activity

As learners interact with lessons and quizzes, you can track their progress in the **Class** activity block.

- When learners start or complete lessons, you will see one notification displaying
 the title of the lesson they started or completed, and another displaying the title
 of the specific resource in the lesson they interacted with. In case of quizzes, you
 will see only the quiz title notification.
- When multiple learners are working on the same lesson or quiz, you will see a notification like *Learner1* and 3 other have started...
- When learners input multiple incorrect answers to a question in a lesson, the notification in the Class activity block will display that one or more learners need help with a specific resource.
- You can click each notification link to review the complete resource data in the **Reports** tab.
- Click VIEW ALL to access the full list of activity notifications (only the 5 most recent are displayed in the block).

5.2 Reports

The **Reports** tab allows you to gain insight into detailed real-time progress of the learners for single resources in lessons and quizzes assigned to them.

Kolibri presents actionable reports for each lesson and quiz the class learners have been assigned, together with the possibility to observe the progress by groups and individual learners.

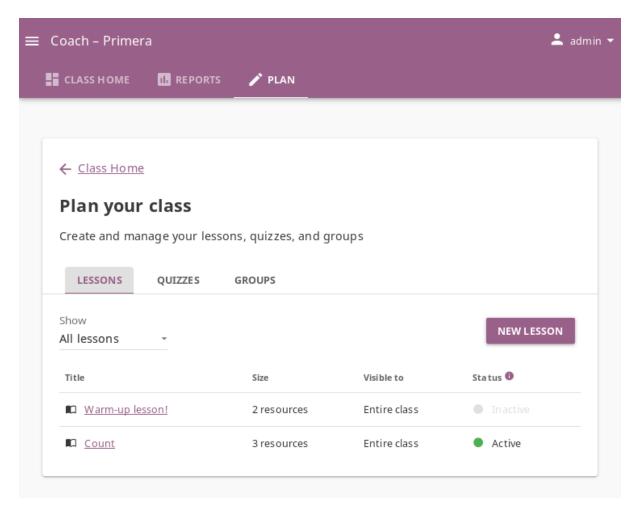
5.2.1 Lessons

Open the **Lessons** sub-tab from the main **Reports** view to access the progress reports on resources included in each lesson.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

- **Progress** column presents the summary of learners who *started* and *completed* the lessons, or *need help* with some of the included resources.
- The switch in the **Visible to learners** column indicates whether the learners can access the lesson resources or not. You can change the lesson visiblity from here,

as well as in the Plan > Lessons subtab.



- 1. Click on the lesson title to view its list of resources.
- 2. In the selected lesson **Report** sub-tab, you can see the clickable list of resources, with their own *progress* and the *average time spent* on.
- 3. When you click to open the single resource, you can see the progress report for each learner (*started*, *completed* or *need help*), and the time spent on it.
- 4. If the resource is an exercise, you can access the **Difficult questions** sub-tab and review each attempt with incorrect answers.
- 5. Open the **Learners** sub-tab to access the progress report per each learner.
- 6. Click the *OPTIONS* button and select **Edit details** or **Manage resources** option if you want to edit the lesson directly from its report. Editing the lesson details from here will have the same results as from the **Plan** tab.
- 7. Use the (print) and (download) buttons to print the lesson report on paper, save it in a PDF format, or export as a CSV file.

Note: The columns *Progress* and *Recipients* in the **Reports > Lessons** sub-tab display a summary, but when you export the report as a CSV file and open it in a spreadsheet application, you will see separate columns for each progress status,

compared to the summary representation in Kolibri. *Recipients* (1) column indicates if the lesson was assigned to the entire class or to group(s), in which case they will be listed in the *Recipients* (2) column.

	A	В	С	D	Е	F	G	Н
1	Title	Recipients (1)	Recipients (2)	Not started	Started	Completed	Help needed	
2	Lesson1	Groups	В	2	3	1	2	
3	Lesson2	Groups	В	7	1	3	1	
4	Lesson3	Class		10	7	5	3	
5								

Fig. 3: Lesson's report exported as CSV and opened in a spreadsheet.

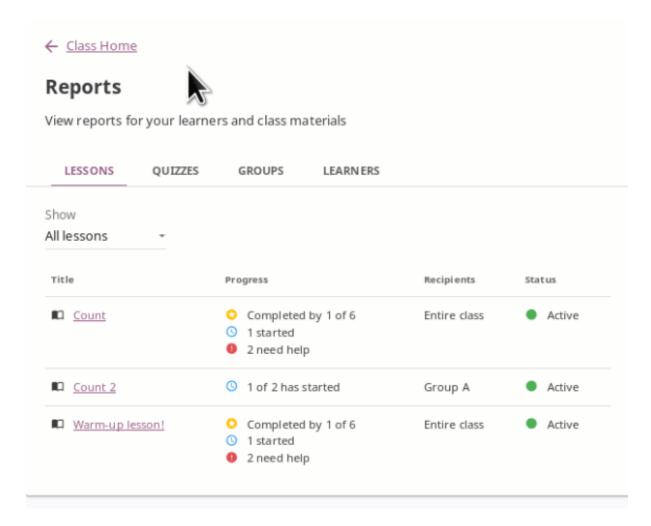
For the rest of the reports the column headings will be the same in an exported CSV file as you can see them in Kolibri.

5.2.2 Quizzes

Open the **Quizzes** sub-tab from the main **Reports** view to access the progress reports on resources included in each quiz.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

- **Progress** column presents the summary of learners that *started* and *completed* each quiz.
- The **Status** column indicates whether the quiz is *opened* for learners (whether they can still answer the questions), or whether the quiz has *ended*. It also indicates whether the quiz is still visible to learners in the **Learn > Classes** view.
- 1. You can start and end the quiz from here, the same as in the **Plan > Quizzes** subtab. Use the START QUIZ to open it for learners, or the END QUIZ when you decide that the learners have had enough time to access the quiz and answer the questions.
- 2. Click on the guiz title to view its list of resources.
- 3. In the selected quiz **Report** sub-tab, you can see the list of learners, with columns for the *progress* and obtained *score*.
- 4. Open the **Difficult questions** sub-tab to view the list of questions learners gave incorrect answers to, and gain insight of how many *need help* with the concept.
- 5. Click a difficult question in the list to review each of the incorrect answers and attempts.
- 6. When you click a name of a single learner, you can see the full report for each answer. This can help you understand which questions learners had difficulties answering correctly, and how many attempts they used.



- green check mark icon indicates the correct answer
- red X mark icon indicates the **incorrect** answer
- gray X mark icon indicates an unanswered question
- 7. Click on the attempt icons to see the answers for each one. In the screenshot above learner **Abby L.** had 3 attempts on *Question 8*: the first one was incorrect, the second one (selected) was correct, but the third and finally submitted one was incorrect.

Note: Review Exercise Progress

When a learner completes the questions of an exercises, the progress bar below the exercise will show the most recent and correct answers. In order for the exercise to be considered completed, the learner must complete the required number of correct answers (*check marks*) in the row.

- 8. Click the *OPTIONS* button and select **Preview** or **Edit details** option if you want to view or edit the quiz details directly from its report. Editing the quiz details from here will have the same results as from the **Plan** tab.
- 9. Use the (print) and (download) buttons to print the quiz report on paper, save it in a PDF format, or export as a CSV file.

Note: The columns *Progress* and *Recipients* in the **Reports > Quizzes** sub-tab display a summary, but when you export the report as a CSV file and open it in a spreadsheet application, you will see separate columns for each progress status, compared to the summary representation in Kolibri. *Recipients* (1) column indicates if the quiz was assigned to the entire class or to group(s), in which case they will be listed in the *Recipients* (2) column.

For the rest of the reports the column headings will be the same in an exported CSV file as you can see them in Kolibri.

5.2.3 Groups

Open the **Groups** sub-tab from the main **Reports** view to access the reports about the progress in lessons and quizzes **per each group**. In the main view you can see the table with summary of lessons and quizzes assigned to each group, number of learners and the last activity.

First Quarter 2 report

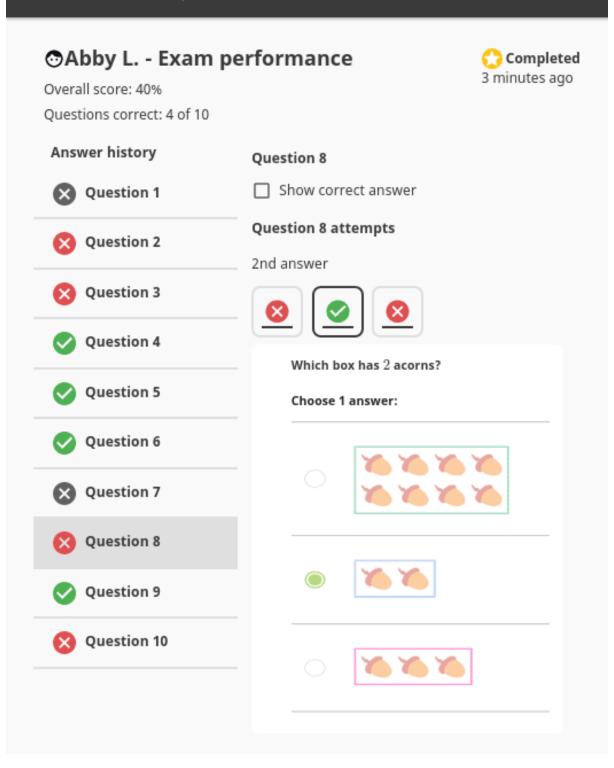




Fig. 4: The correct answers (green check marks) in the image above are not in a row; this exercise will be completed only after the learner gives 5 correct answers one after another.

	A	В	С	D	E	F	G	Н
1	Title	Average score	Recipients (1)	Recipients (2)	Not started	Started	Completed	Help needed
2	Quiz1	66%	Groups	Α	5	1	2	1
3	Quiz2		Groups	В	1	0	0	0
4	Quiz3	40%	Class		1	17	14	6
5	Quiz4	74%	Class		13	5	3	2

Fig. 5: Quizzes' report exported as CSV and opened in a spreadsheet.

- 1. Click on group name to view its detailed progress report.
- 2. From the group **Reports** sub-tab you can click to access each lesson and quiz.
- 3. In the **Members** sub-tab you can view the summary of completed exercises, scores and viewed resources **for each group learner**, and click to access their full progress report.
- 4. Use the (print) and (download) buttons to print the report on paper, save it in a PDF format, or export as a CSV file.

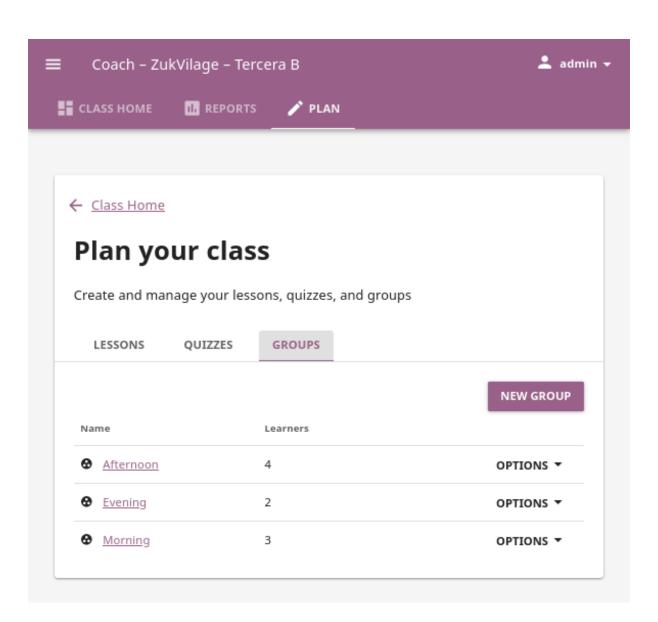
Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

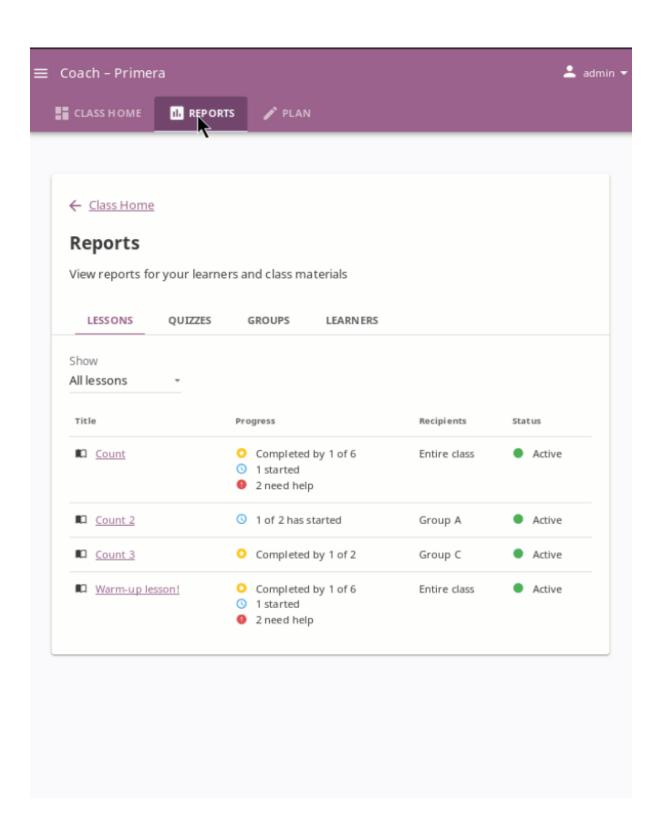
5.2.4 Learners

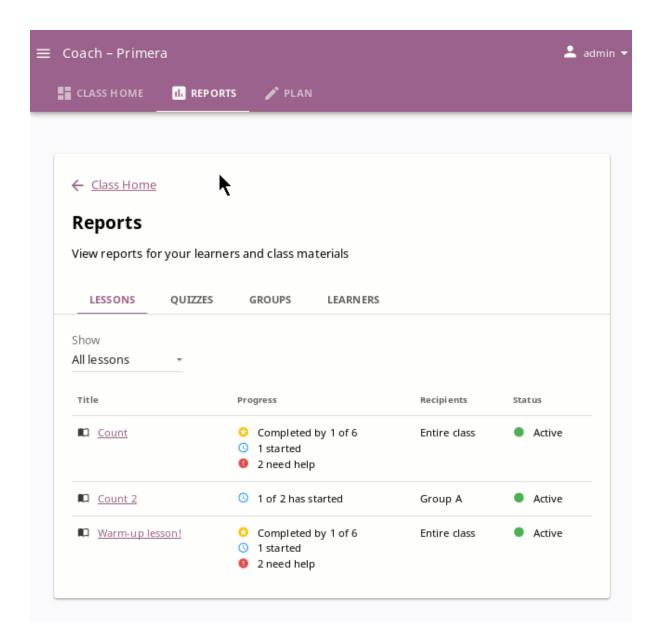
Open the **Learners** sub-tab from the main **Reports** view to access the progress report per each learner. In the main view you can see the table with summary of completed exercises, scores and viewed resources **for each learner**, and their last activity.

- 1. Click on learner name to view their detailed progress report.
- 2. From the learner **Reports** sub-tab you can click to access each lesson and quiz.
- 3. In the **Activity** sub-tab you can review their activity on resources assigned.
- 4. Use the (print) and (download) buttons to print the report on paper, save it in a PDF format, or export as a CSV file.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.







5.2.5 Print and Export Coach Reports

On any coach report where you see the (print) and (download) buttons, you will be able to print on paper, save in a PDF format, or export as a CSV file, for further analysis or to share with others. Follow these steps.

- 1. Click the (print) button for the report you want to print or save as PDF file on your local drive. You will either have to select your paper printer device, or the *Save as PDF* option in the print dialog.
- 2. Click the (download) button for the report you want to export as CSV file on your local drive.

5.3 Plan

Use the options in the **Plan** tab to create and manage the lessons, quizzes, and groups for the selected class.

5.3.1 Manage Lessons

Kolibri **Lessons** offer you the possibility to prepare smaller selections of available learning resources and assign them to learners on a temporary basis. You can select resources from multiple channels, and copy the created lessons to other classes or groups as needed.

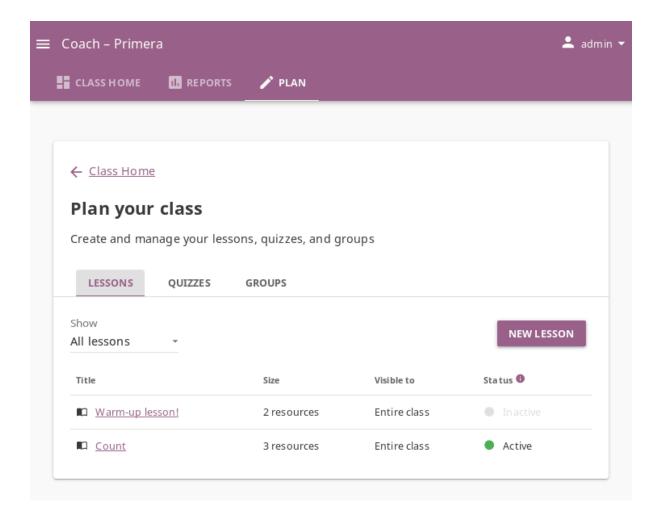
To view, create or delete lessons, as well as assign them to learners, use the **Lessons** sub-tab in the **Plan** tab of your **Coach** dashboard. Default view displays the list of all lessons created for the selected class, the number of resources they contain, groups they are assigned to, and their status indicator.

Note: To manage **Lessons** in Kolibri classes and groups, you must sign in as **coach**, **admin** or **super admin**.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

5.3.1.1 Create New Lesson

To create a new lesson, follow these steps.

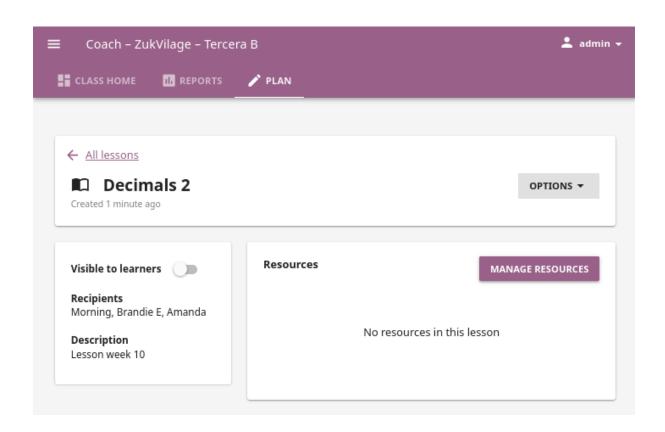


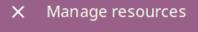
- 1. Click the NEW LESSON button.
- 2. Fill in the field for the lesson title, description and choose individual learners, groups or the entire class as the recipients.
- 3. Click SAVE CHANGES. In this step, the lesson does not have any learning resources yet, but you can see and edit some options.
- 4. Click MANAGE RESOURCES and select the channel from which you wish to select resources for the lesson.
- 5. Keep navigating the topic tree of the selected channel until you arrive to single resources. Use the checkboxes to select the resources you want to include in the lesson, and you will see a notification at the bottom of the page that the resource has been added.
- 6. Use the Search feature to look for resources about a specific subject. Write the search term in the field, and press the ENTER key or click the (search) button to display the results. When you finish, click the EXIT SEARCH button to return to the list of selected resources.
- 7. Click the *CLOSE* button to close the **Manage resources** window and return to the main view of the lesson.
- 8. After you've selected the resources for the lesson, you can:
 - Grab the (drag) button to reorder lesson resources with the mouse (drag and drop).
 - Use the (up) and (down) buttons to reorder by keyboard navigation.
 - Click the REMOVE button to delete a resource.

You will see a confirmation notification at the bottom every time you change something in the lesson.

9. To add more resources to the same lesson and keep editing if needed, follow the steps 4 to 9 again.

X Create new lesson		
Title Decimals 2		
Description Lesson week 10	10/50	
	14/200	
Recipients ☐ ☑ Entire class ☐ ② Evening ☑ ③ Morning ☐ ③ Afternoon ☑ ∴ Individual learners Select individual learners Only showing learners that are	enrolled in this class	
Q Search for a user		
Select all on page	Username	Groups
✓ Amanda	amanda	
✓ Brandie E	branbran	





Manage resources in 'Counting Week 10'

Search



0 resources in this lesson



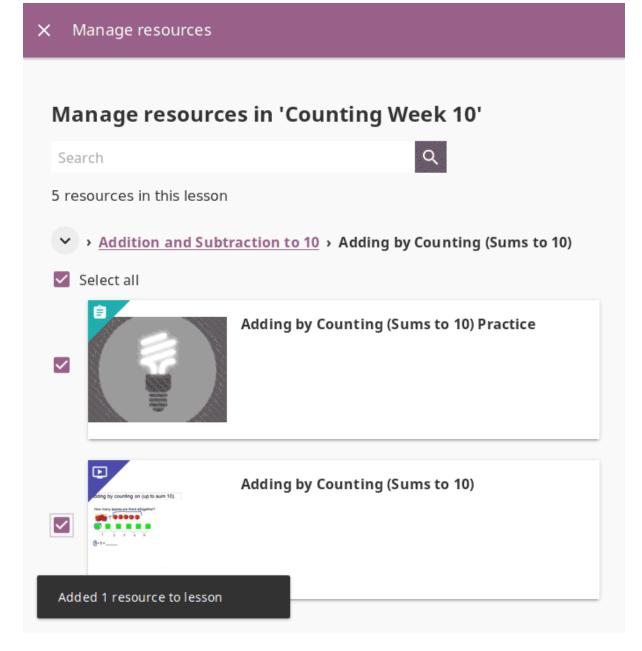
Khan Academy (English)

Khan Academy content for English.



Touchable Earth (en)

Where kids teach kids about the world. Taught entirely by school age children in short videos, Touchable Earth promotes tolerance for gender, culture, and identity.



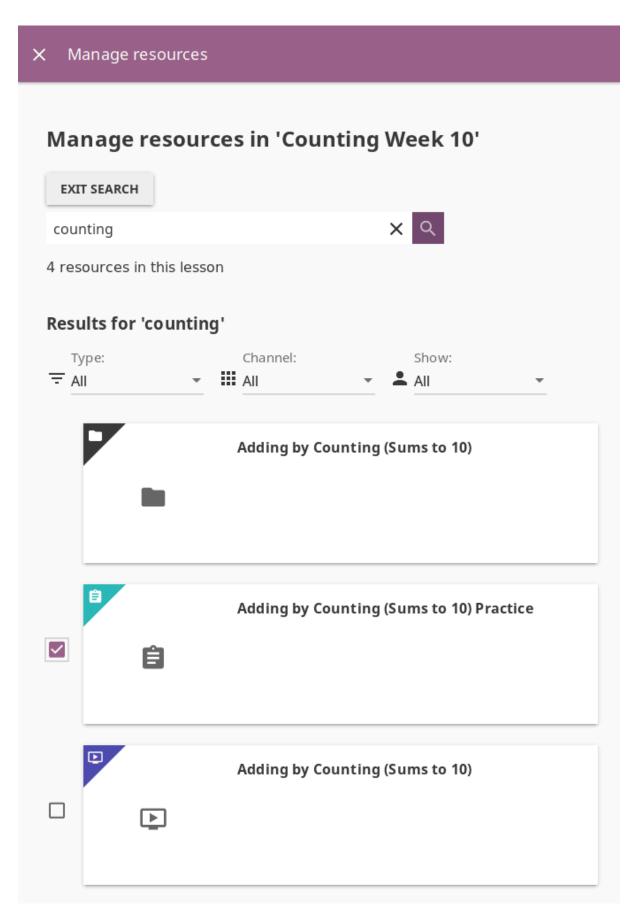
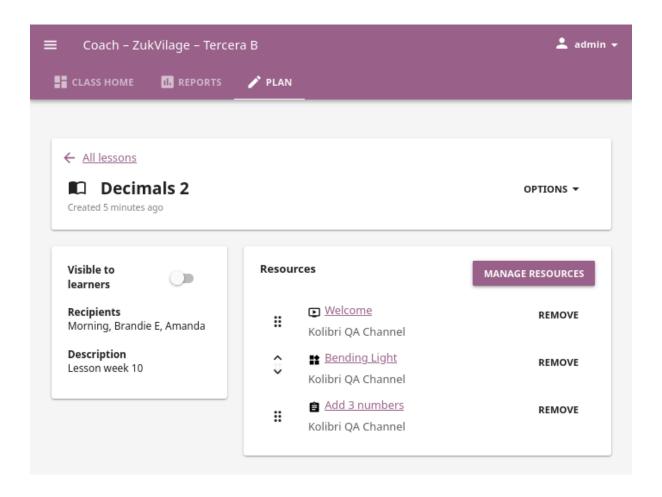


Fig. 6: You can filter the search results by *type* of resource (video, document, exercise...), include only those from a specific *channel*, or exclude *resources* for coaches.



5.3.1.2 Change Lesson Visibility

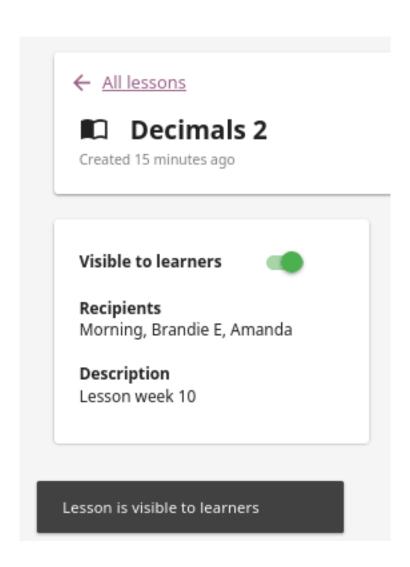
A newly created lesson is by default *not visible to learners*, and they will not see it in the **Learn > Classes** view.

- Click the **Visible to learners** switch in the summary block to enable learners to see the lesson and interact with its resources.
- Click the switch again to make the lesson invisible to learners once the designated time had passed.

Note: You can also change lesson visiblity from its own **Report**, and the list in the **Reports > Lessons** subtab.

5.3.1.3 Change Lesson Recipients

You can change the recipients of the lesson, reassigning the lesson to a different group or the entire class. Follow these steps.



- 1. Select the desired lesson from the list in the **Lessons** tab.
- 2. Click the OPTIONS button and select Edit details.
- 3. Select the entire class, groups or individual learners to whom you wish to assign the lesson under the *Recipients* heading.

4. Click SAVE CHANGES to confirm, or CANCEL to exit without change.

5.3.1.4 Copy Lesson

To copy a lesson to a different group or another class of your facility, follow these steps.

- 1. Select the desired lesson from the list in the **Lessons** tab.
- 2. Click OPTIONS and select Copy lesson.
- 3. Select the class to which you wish to copy the lesson to.
- 4. Select the entire class, groups or individual learners to whom you wish to assign the lesson.
- 5. Click COPY to confirm, or CANCEL to exit without change.

If the lesson is copied to another group in the same class, it will appear in the **Lessons** tab as the *Copy of...*. Follow the steps in the next heading to rename it.

5.3.1.5 Rename Lesson

To rename a lesson, follow these steps.

- 1. Select the desired lesson from the list in the **Lessons** tab.
- 2. Click OPTIONS and select Edit details.
- 3. Change the lesson title in the confirmation window.
- 4. Click SAVE to confirm, or CANCEL to exit without renaming the lesson.

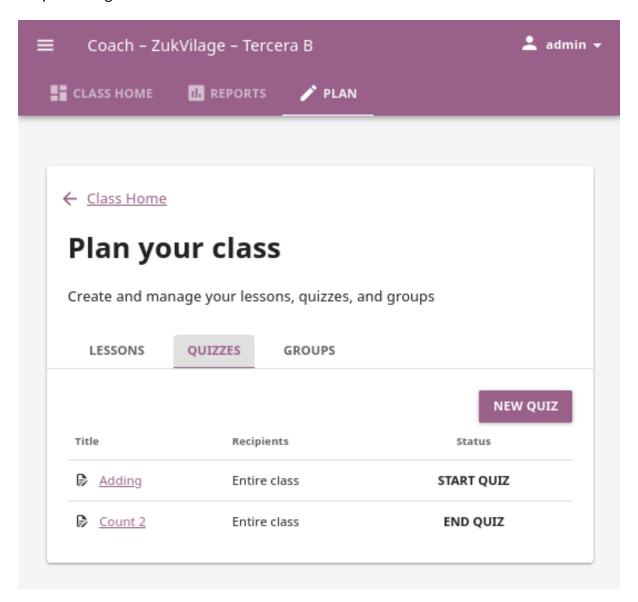
5.3.1.6 Delete Lesson

To delete a lesson, follow these steps.

- 1. Select the desired lesson from the list in the **Lessons** tab.
- 2. Click OPTIONS and select Delete.
- 3. Click *DELETE* in the confirmation window to proceed, or *CANCEL* to exit without deleting the lesson.

5.3.2 Manage Quizzes

You can view, create and delete quizzes, as well as assign them to learners, using the **Quizzes** sub-tab in the **Plan** tab of your **Coach** dashboard. The default view displays the list of all quizzes in a selected class, with indicators of their visibility status and groups they are assigned to.



Note: To manage **Quizzes** in Kolibri classes and groups you must sign in as **coach**, **admin** or **super admin**.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

5.3.2.1 Create New Quiz

To create a new quiz, click the NEW QUIZ button.

- Fill in the field for the guiz title in the Create new guiz page.
- Adjust the number of questions you want the quiz to contain. You can use the arrow field value modifiers with the mouse, or - and + buttons if you are using the keyboard.
- Navigate through the topic tree and activate checkboxes of those exercises you want to include in the quiz.

As you keep adding and removing the exercises you will see confirmation messages at the bottom.

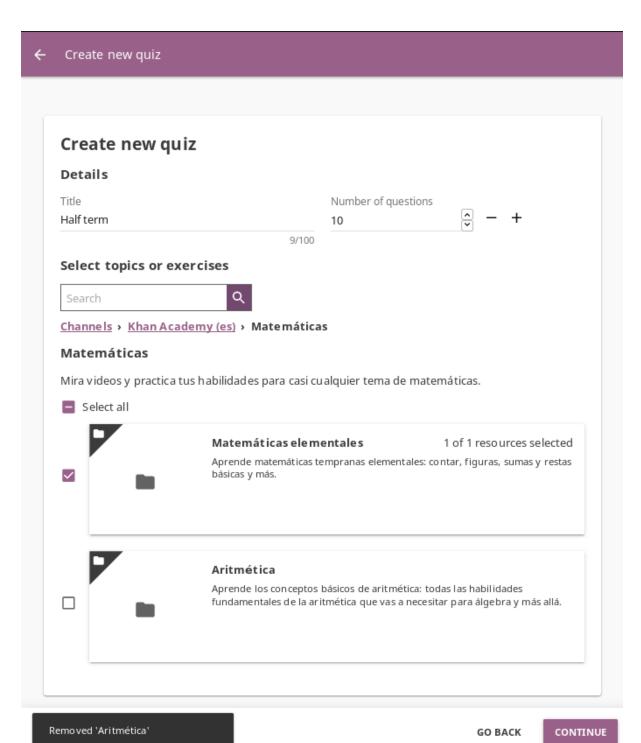
• Use the **Search** feature to look for topics and exercises about a specific subject. Write the search term in the field, press the *ENTER* key or click the (search) button to display the results.

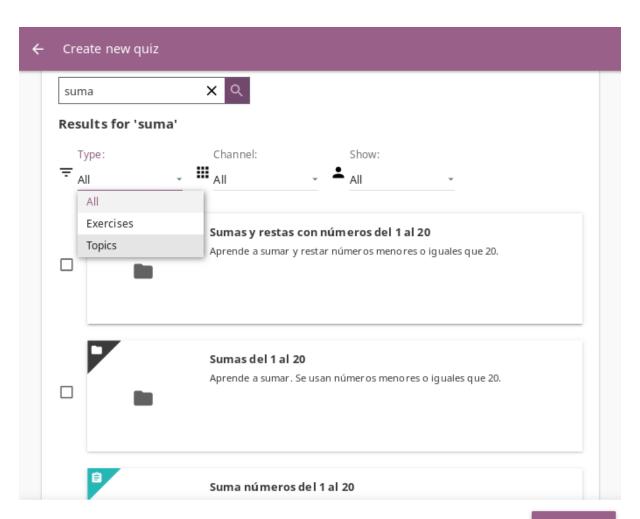
You can filter the search results by *type* of resource (exercise or topic), include only those from a specific *channel*, or exclude *resources for coaches*. Click *EXIT SEARCH* button to return to main quiz view.

• When you finish selecting resources, click CONTINUE button to preview the quiz.

Warning: Beware that if you click the *GO BACK* button, you will exit the guiz builder and loose the resource selection.

- You can choose between **Randomized** and **Fixed** guestion order.
 - To present the questions in a different (random) order to each learner, select Randomized.
 - To present the same (*fixed*) question order to all learners, select *Fixed*. You can reorder the questions by using the (drag) button with the mouse (drag and drop), or with (up) and (down) buttons if you navigate by keyboard.
- Use the option *Choose a different set of questions* to obtain an alternative selection of questions to display.
- When you are satisfied with the question order click the *FINISH* button, and you will see a confirmation notification at the bottom.





EXIT SEARCH

Question order

Randomized

Each learner sees a different question order

Fixed

Each learner sees the same question order

Questions

- Suma números del 1 al 20 (1)
- Suma números del 1 al 20 (2)
- Suma números del 1 al 20 (3)
- Suma números del 1 al 20 (4)
- Suma números del 1 al 20 (5)

Suma números del 1 al 20

$$12 + 8 = ?$$

20

Question order

Randomized

Each learner sees a different question order

Fixed

Each learner sees the same question order

Questions

- 1. Suma números del 1 al 20 (1)
- 2. Suma números del 1 al 20 (2)
- Suma números del 1 al 20 (4)
- Suma números del 1 al 20 (3)
- Suma números del 1 al 20 (5)

Suma números del 1 al 20

$$19 + 1 = ?$$

20

5.3.2.2 Change Quiz Recipients

Newly created quizzes are by default visible to entire class. To change quiz *Recipients*, that is select groups or individual learners instead of the whole class, follow these steps.

- 1. Select the desired quiz from the list in the **Quizzes** subtab.
- 2. Click the OPTIONS button and select the **Edit details** option.
- 3. Select the learners and groups to whom you wish to assign the quiz under the *Recipients* heading.
- 4. Click SAVE CHANGES to confirm, or CANCEL to exit without change.

Recipi	ients	
	l Entire class	
□ �	Evening	
☑ ⊕	Morning	
□ �	Afternoon	
✓ ∴	Individual learners	
Select	individual learners	
Only s	c individual learners Showing learners that are enrolled in this class Search for a user	
Only s	howing learners that are enrolled in this class	
Q s	howing learners that are enrolled in this class	

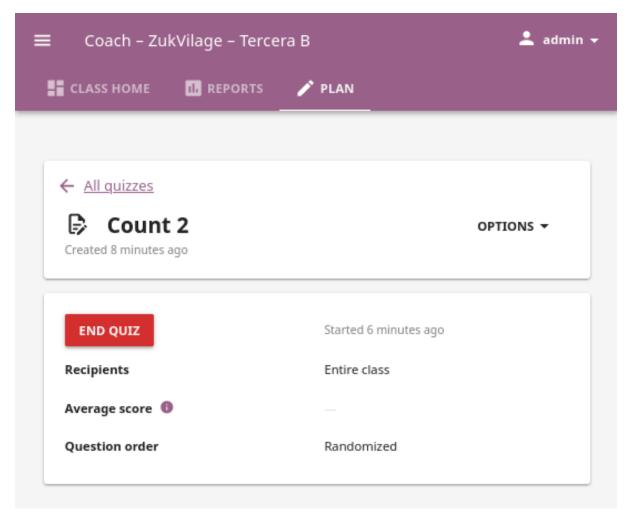
CANCEL

SAVE CHANGES

5.3.2.3 Start and End Quiz

Newly created quizzes are by default *not started*, meaning that learners will not see it in the **Learn > Classes** view.

- Click the START QUIZ button to enable learners to see the quiz and start answering the questions. Button will change color and label to indicate that the quiz is now opened for learners, and can be *ended*.
- Click the END QUIZ button once the designated time had passed, and you want to stop learners from interacting with it.



Note: You can also start and end the quiz from its **Report** page, and the list in the **Reports > Quizzes** subtab.

5.3.2.4 Copy Quiz

To copy a quiz to a different group or another class, follow these steps.

- 1. Select the desired guiz from the list in the **Quizzes** subtab.
- 2. Click OPTIONS and select Copy quiz.
- 3. Select the class to which you wish to copy the quiz to and click CONTINUE.
- 4. Select the entire class, groups or inidividual learners to whom you wish to assign the quiz under the *Assign quiz to* heading.
- 5. Click COPY to confirm, or CANCEL to exit without change.

If the quiz is copied to another group in the same class, it will appear in the **Quizzes** tab as the *Copy of...*. Follow the steps in the next section to rename it.

5.3.2.5 Rename quiz

To rename quiz, follow these steps.

- 1. Click OPTIONS for the desired quiz and select **Edit details** option.
- 2. Change the quiz title in the confirmation window.
- 3. Click SAVE CHANGES to confirm, or CANCEL to exit without renaming the quiz.

5.3.2.6 Delete Quiz

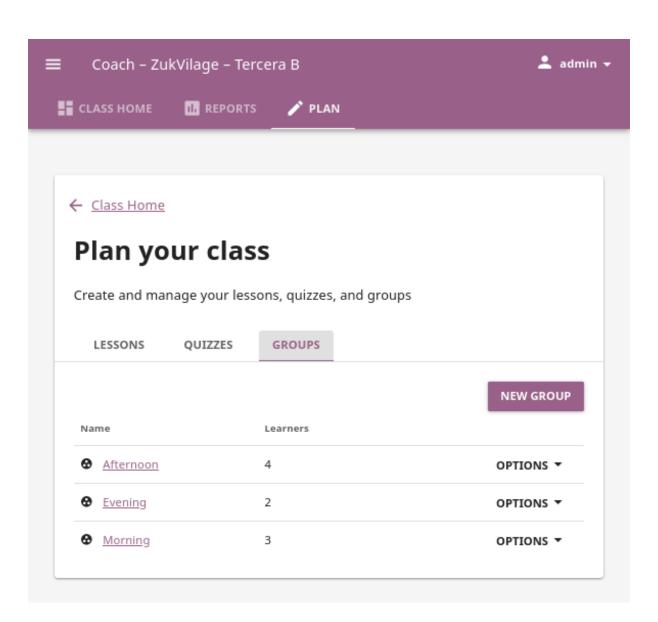
To delete quiz, follow these steps.

- 1. Click OPTIONS for the desired guiz and select **Delete** option.
- 2. Click *DELETE* in the confirmation window to proceed, or *CANCEL* to exit without deleting the quiz.

Warning: All data from the quiz you are deleting will be lost.

5.3.3 Manage Groups

In case you need to further divide learners inside classes, for example to address the different progress needs, you can use the **groups** feature. Create and delete groups, as well as assign learners to them from the **Groups** sub-tab in the **Plan** tab of your **Coach** dashboard. Default view displays the list of all groups for the selected class, with the number of assigned learners for each group.



Note: To manage Kolibri groups you must sign in as **coach**, **admin** or **super admin**.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

5.3.3.1 Create a New Group

To create a new learner group, follow these steps.

- 1. Click the NEW GROUP button.
- 2. Give group a desired name.
- 3. Click SAVE to confirm, or CANCEL to exit without creating a group.

5.3.3.2 Enroll Learners in a Group

- 1. Click to open the desired group in the **Groups** sub-tab.
- 2. Click the ENROLL LEARNERS button.
 - List in this view contains all the learners currently **not** enrolled in the selected group.
 - You can search for a specific learner by name.
- 3. Use checkboxes to select all the learners in the list, or the search field for specific learners you want to enroll in the group.
- 4. Click *CONFIRM* to finish enrolling the selected learners and return to the group page.

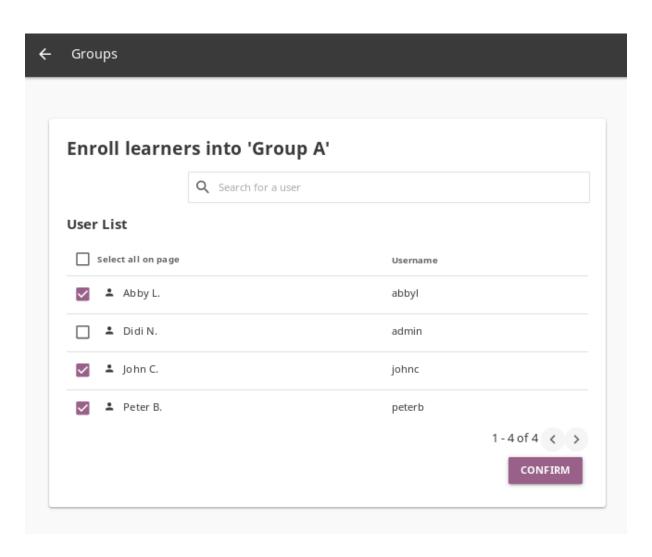
5.3.3.3 Remove Learners from Group

- 1. Click REMOVE for the chosen learner.
- 2. Click REMOVE to confirm, or CANCEL to exit without removing the learner.

5.3.3.4 Rename Group

To rename group, follow these steps.

- 1. Click the OPTIONS button on the right edge of the desired group.
- 2. Select the **Rename** option.
- 3. Input the new name for the group in the confirmation window.
- 4. Click the SAVE button to proceed, or CANCEL to exit without renaming the group.



5.3.3.5 Delete Group

To delete a group, follow these steps.

- 1. Click the OPTIONS button on the right edge of the desired group.
- 2. Select the **Delete** option.
- 3. Click the *DELETE* button in the confirmation window to proceed, or *CANCEL* to exit without deleting the group.

5.4 Coach Support Resources

Kolibri Studio⁵³ supports the option to set visibility for any resource added to channels as a **Coach resource**. These materials can be lesson plans, professional development readings, training materials, etc. only viewable by coaches and not learners. When content curators set the visibility this way, the resource will not be visible by learners while browsing Kolibri **Channels**, but only to admins, facility coaches, or other users assigned to coach classes.

However, coach can decide to include any of these resources in *lessons* or *quizzes*, in which case they will be visible to learners in the context of that lesson or a quiz.

Coach resources and channels that contain them are marked with the (coach resource) icon in Kolibri.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

⁵³ https://studio.learningequality.org/

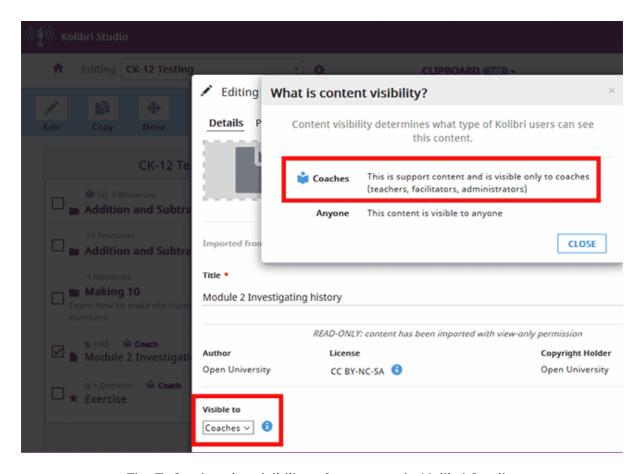


Fig. 7: Setting the visibility of resources in Kolibri Studio.

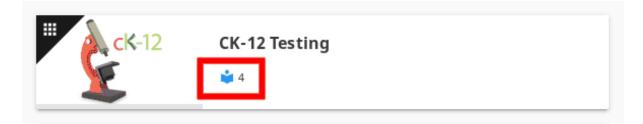


Fig. 8: Channel with 4 support resources for coaches in Kolibri.

Learn with Kolibri

6.1 Access Kolibri

Note:

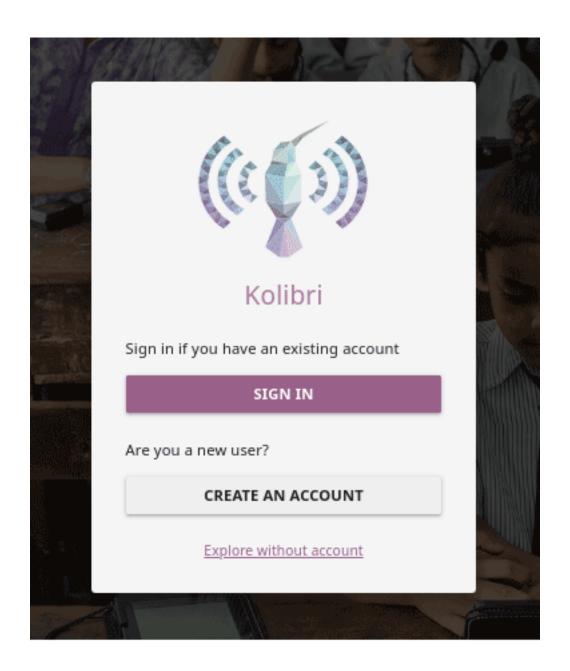
- If you are using Kolibri in your school, education center or facility, your coach or administrator will provide the instructions how to open the sign-in page, and username and password if necessary.
- If you are using Kolibri on your own, outside an education center or facility, follow the instructions how to *Access Kolibri* according to your operating system.
- If you don't have an account, but Kolibri at your facility or home is set up to allow learners to create their own, follow the steps to *create one for yourself*.

Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

6.1.1 Sign in to Kolibri

To sign in to **Kolibri** and start learning, follow these steps:

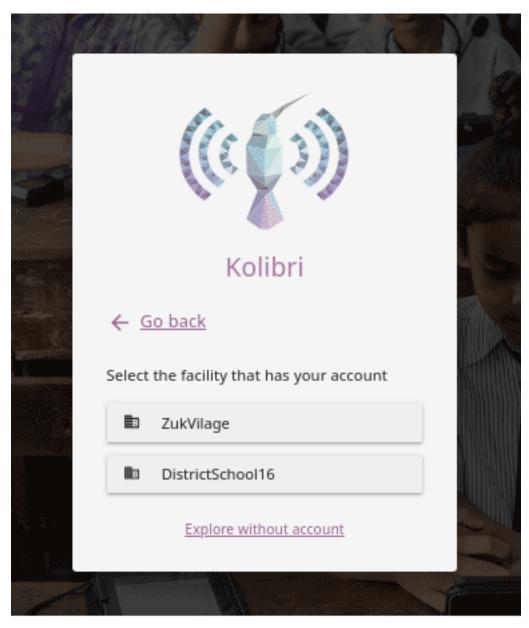
- 1. Click the SIGN IN button if you already have an account and the username.
 - If you have used the same device before, you may see the field to directly type in your username and password (if required) on the main sign in page.
 - If the device you are using has more than one facility, you will have to select the facility (for example you school name) that your account is



English <u>Español</u> <u>Français</u> MORE LANGUAGES

Fig. 1: Main Kolibri sign in page.

associated with, and only then input your username and password (if required).

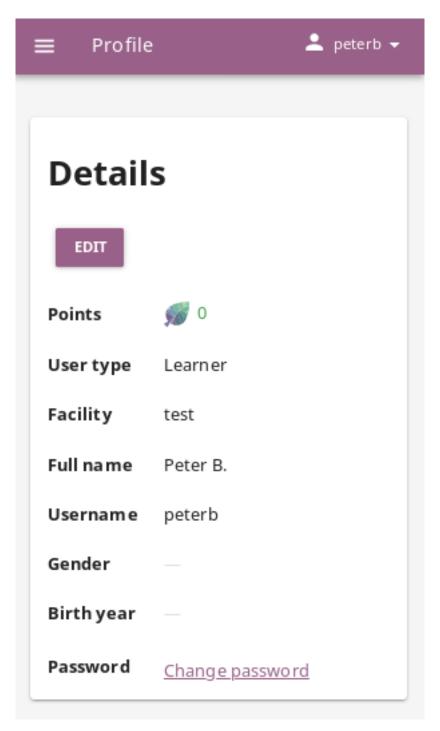


English Español Français MORE LANGUAGES

Fig. 2: Select facility on the Kolibri sign in page.

Warning: If you start browsing Kolibri as a guest, you need either to select **Sign in** option from the **Guest** menu in the upper right corner, or from the sidebar menu (left or bottom) to open the sign-in page.

Once you have signed in to Kolibri, you can see and edit your user data from the **Profile** option: access it from the main sidebar menu (below **Learn**), or from the user menu.

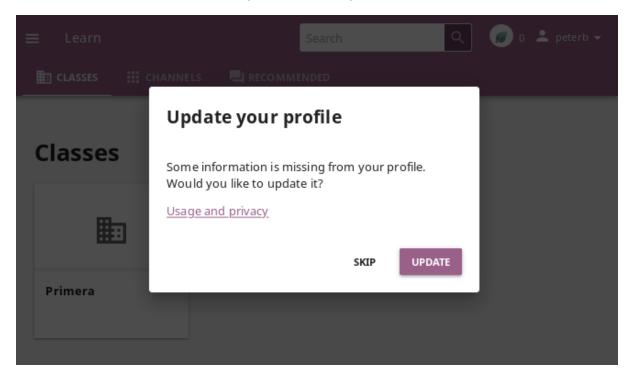


Note: If your account has been created prior to version 0.13 of Kolibri, you will see a notification that you can update your profile to provide your birth year and gender. This information is optional, and you can choose not to provide it.

• Click the Usage and privacy link to read more information about who will have

access to your personal information.

• Click the UPDATE button if you choose to provide it.



To sign out from Kolibri you can either:

- Click the to open the user menu in the upper right corner, and select the Sign out option.
- Click the (menu) button in the upper left corner to open the sidebar, and select the **Sign out** option.

6.1.2 Create an account

To create your own account on a **Kolibri** facility and start learning, follow these steps:

- 1. Click the CREATE AN ACCOUNT button on Kolibri sign in page.
- 2. Type in your chosen username and password (twice).
- 3. If there is more than one facility on the server device, make sure that the one where you want to create an account is visible under the *Facility* heading. If it is not, use the browser *back* button, and select the correct facility first.
- 4. Click the *Usage and privacy* link to read more information about who will have access to your personal information.
- 5. Click the CONTINUE button.
- 6. Select your birth year and gender. This information is optional, and you can choose not to provide it.

Create an account

Full name

Anna B.

7/120

Username

annab

5/30

Password

Re-enter password

Facility

DistrictSchool16

Usage and privacy

CONTINUE

Sign in if you have an existing account



🜐 English Español Français Kiswahili العَرَبِيَّة MORE LANGUAGES

7. Click the FINISH button.

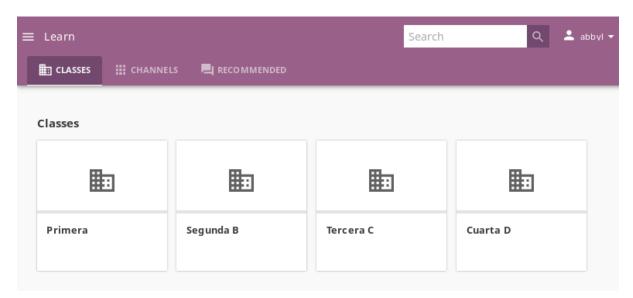
When page reloads you will see the Learn page with Kolibri channels.

Tip: Make sure to remember your username and password, or save them in a safe place!

6.2 Learn with Kolibri

6.2.1 Classes

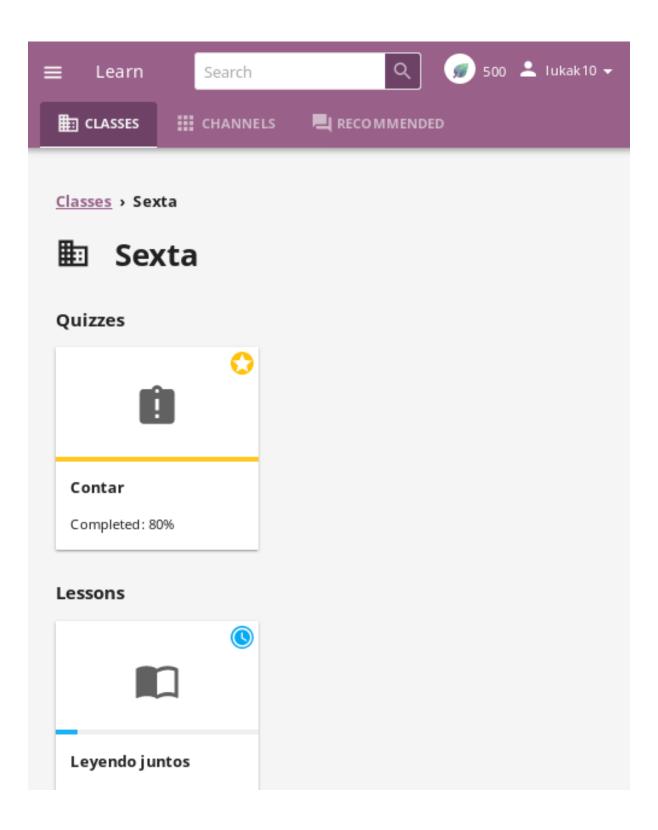
Each time you sign in to **Kolibri**, the first thing you will see is the **Learn** page with the list of all the classes you are enrolled to.



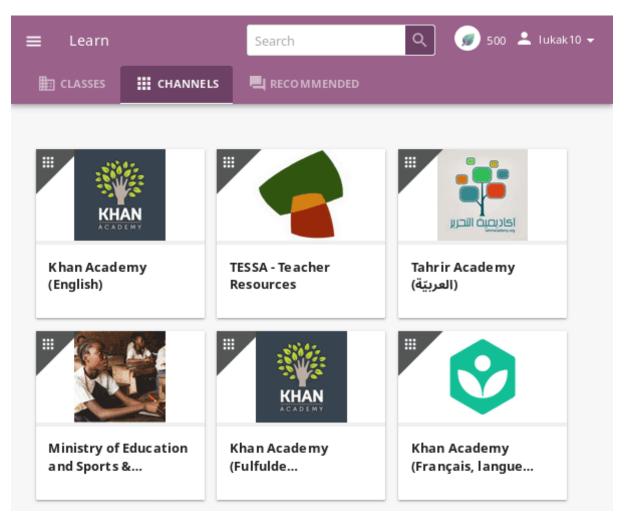
Select one of your classes to access *lessons* and *quizzes* teachers or coaches prepared for your class.

6.2.2 Channels

Use the **Channels** tab to navigate through the complete set of learning topics and materials available in Kolibri. You can browse it as you wish, or according to indications from your teachers and coaches.



Depending on how your school and teachers or coaches decided to organize the materials, you may have one or more channels available here. Follow the indications by your teachers or coaches on how to use the resources from each available channel.



6.2.3 Recommended

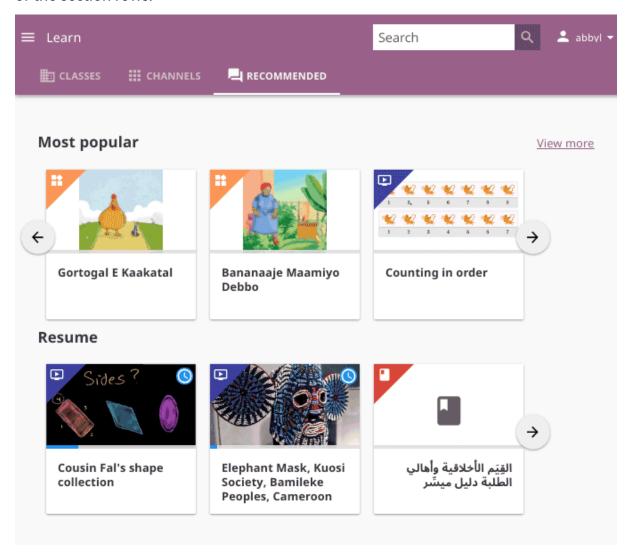
In the Recommended tab you can see various sections:

- Most popular displays the most frequently used materials in your school or facility.
- **Next steps** indicate the recommended materials based on those that you already viewed and interacted with.
- **Resume** displays activities that you started but haven't finished yet.

These learning topics and materials are either related to what you were doing the last time you used Kolibri. or recommended by your teachers and coaches.

The number of displayed resources in each row will depend on the width of your display, and you can browse with the (back) and (forward) buttons at the beginning and the end

of the section rows.

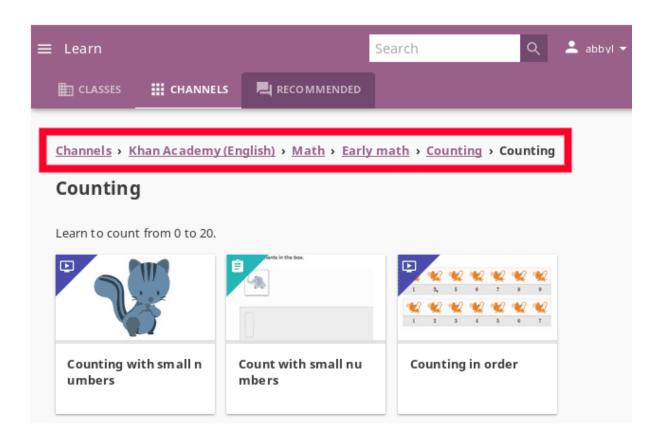


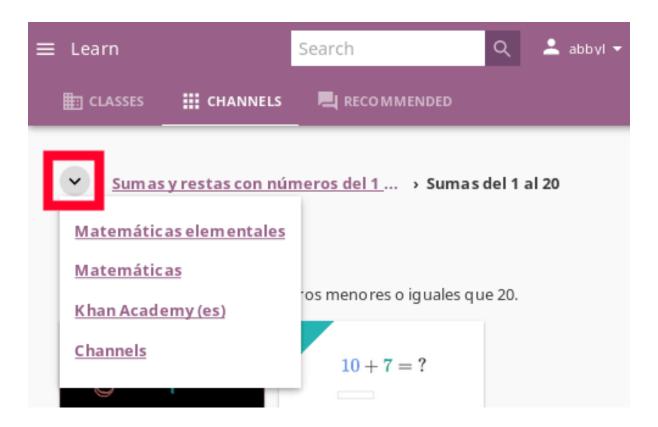
Note: Next steps and Resume are not visible if you are browsing as a guest.

6.2.3.1 Navigate Kolibri topics with breadcrumb links

When you are browsing a topic in Kolibri, the **Breadcrumb** links indicate previously visited, more general topics. Current topic is at the last position, and you can click any of the previous links in the breadcrumb to go back to a specific broader topic.

If the full length of the breadcrumbs becomes too wide for the width of your display, the more general topics will be hidden. Click the leftmost down arrow button to access them.



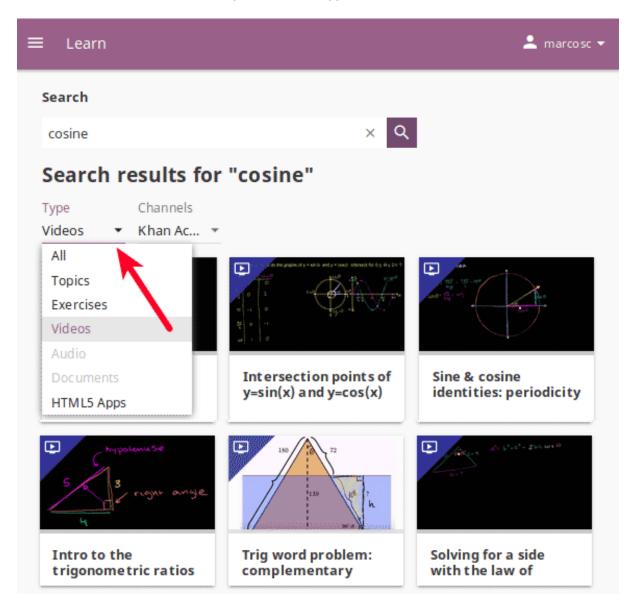


6.2.4 Search

If you are looking for a specific subject, topic, or term, use the **Search** feature:

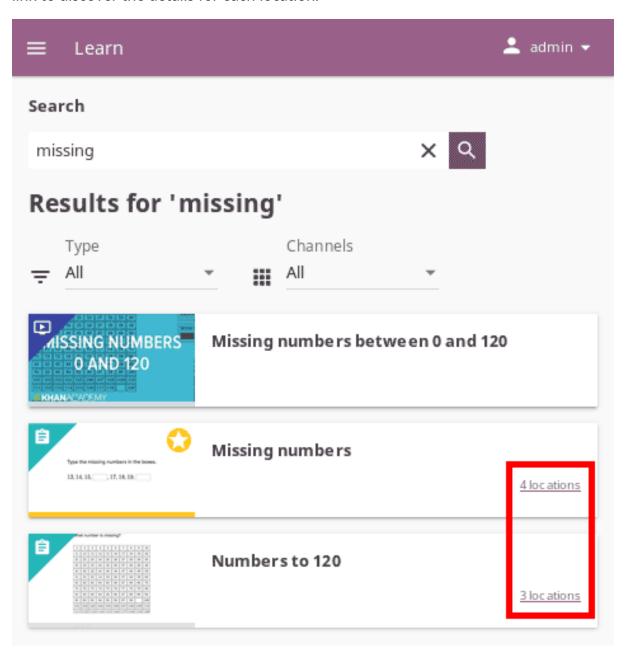
1. Type the word or combination of words you are looking for in the search field located in the top bar.

- 2. Press Enter or click the (search) button to display the results.
- 3. Filter the search results by channel or type of resource.



Captions for the video are available in English, French, Swahili, Arabic, Hindi, Marathi and Brazilian Portuguese.

Some Kolibri resources may be duplicated in different topics and/or channels. Search results will indicate when a resource is duplicated, and you can click on the ...locations link to discover the details for each location.



6.2.5 Types or resources

You may see different types of resources available in Kolibri channels, and you can easily distinguish them by their icons:

- Videos
- Exercises

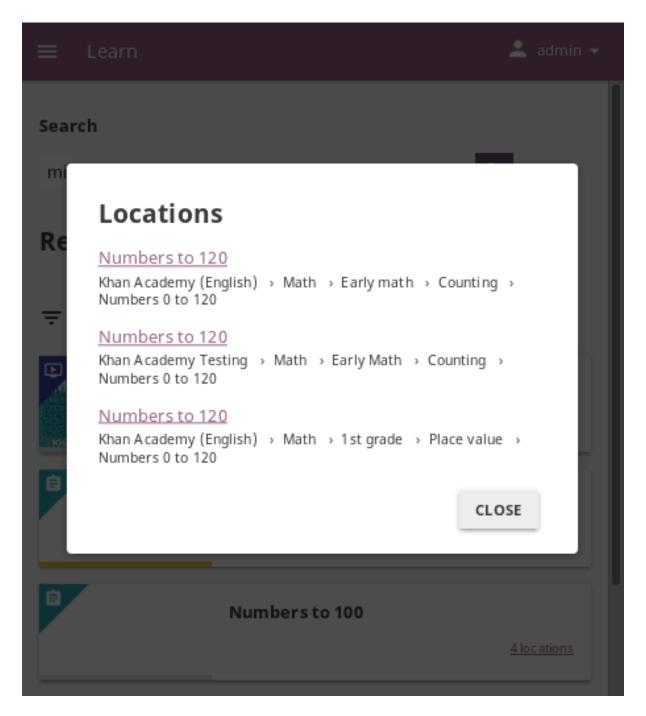


Fig. 5: Details for the duplicated resources in the search results.

- Documents
- Interactive apps
- Topics
- Slideshow

When you start doing an exercise, viewing a video, or reading a document, it will be marked with the (in-progress) icon. Once you finish viewing a video or complete the exercise, they will be marked with the (completed) icon.

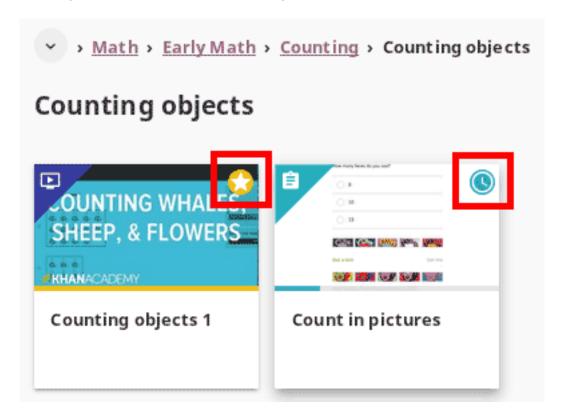


Fig. 6: Progress indicator icons for learning resources.

6.2.5.1 Exercises

Kolibri **Exercises** can require you to do different things: fill in a missing number, write a formula, choose one of the available options, etc. Each correct answer gets you a check mark, and majority of exercises require 5 correct answers in a row to be completed. Some exercises can offer one or more hints, to help you solve the problem.

Independent of the required action (writing an answer yourself or choosing one of the options), these are the steps to follow.

- 1. Read the question carefully.
- 2. Write the answer or choose one of the provided options.

- 3. When you are ready to submit, click the CHECK button.
 - When the answer is correct and a (correct) icon appears in the progress bar below the exercise, click the *NEXT* button to proceed.
 - If the answer is incorrect, read the question again, and try another answer. You can also click the *USE A HINT* link, read the suggestions, and try to answer again.
 - The progress bar below the exercise is taking into account only the most recent answers you give, which means that you need to have the required number of (correct) icons in the row for the exercise to be considered completed.



Fig. 7: The correct answers in the image above are not in a row; this exercise will be completed only after you give 5 correct answers one after another.

- 4. Once you have achieved the required number of correct answers in a row, you will be rewarded points, and see the suggestion to continue. Click the card under the **Next resource** heading below to continue learning with the rest of the material in that topic.
- 5. If you are unable to solve some questions, try reviewing the videos in that same topic, or seek help from your peers or teacher/coach.

6.2.5.2 Video and Audio Player options

To play videos and listen to audio files in Kolibri you have several available control buttons at the bottom of the player screen. Move the cursor or tap on the player screen to make appear the control buttons while playing.

(controls at the bottom of the player)

- Play/Pause buttons
- Rewind/Fast forward buttons by +/- 10 seconds
- Time tracker indicator with progress bar
- Video duration indicator
- Volume scrollbar

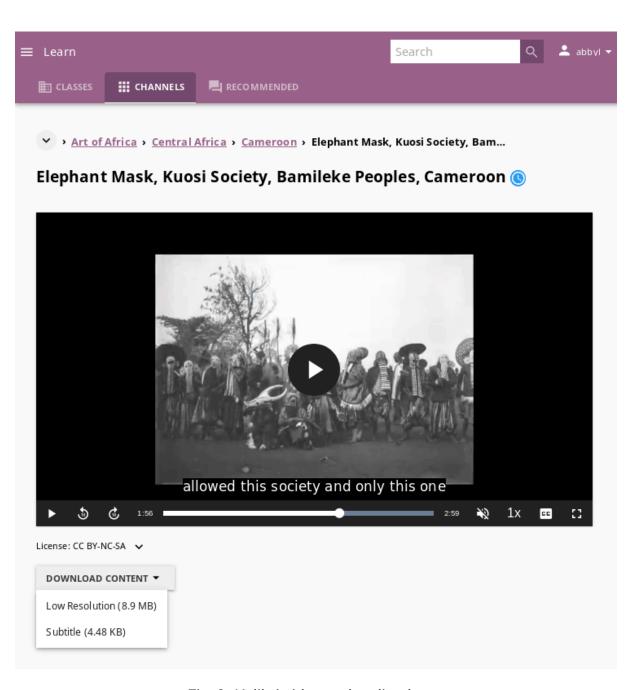


Fig. 8: Kolibri video and audio player.

- Playback speed selector
- Display closed captions (subtitles)
- Fullscreen button

Use the *DOWNLOAD RESOURCE* button below the player to download the video, audio and thumbnail files to your computer. Some videos will provide multiple resolution options.

Interactive Video Transcript

When a video has captions available, you can choose to view them at the bottom of the player, or open them as an interactive transcript.

- 1. Click the CC button at the bottom of the player and select **Transcript**.
- 2. Scroll up and down the transcript and click on the chosen timestamp to navigate more easily between various video sections.

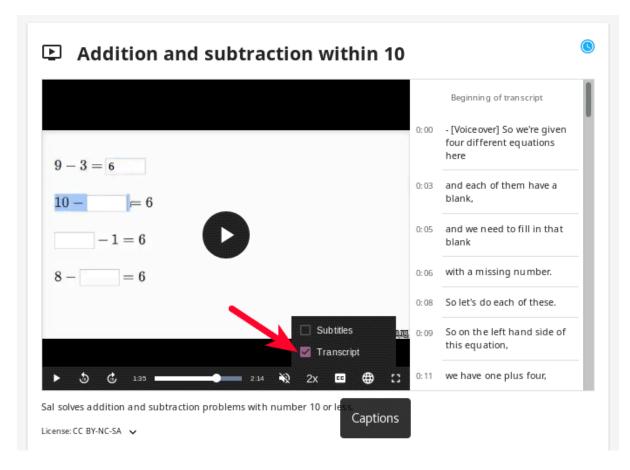


Fig. 9: Kolibri allows you to navigate videos using the captions inside the transcript.

6.2.5.3 PDF Viewer options

Note: Options for viewing PDF files will depend on the browser and operating system you are using to view Kolibri.

- Use the (fullscreen) button in the upper right corner to open the ebook in fullscreen view.
- With the + and buttons you can zoom the document in and out.
- Use the *Esc* key or the (fullscreen exit) button to close the fullscreen view and return.
- Use the DOWNLOAD RESOURCE button below the PDF viewer to download the PDF file to your computer.



6.2.5.4 Ebook Viewer options

To read digital books in Kolibri you have several available controls inside the reader.

- Use the (list) button in the upper left corner to view the table of content with all the book chapters.
- Click the (preferences) button to adjust the text size and the background color.
- If you want to search for a word or a phrase, use the (search) button.
- Use the (fullscreen) button in the upper right corner to open the ebook in fullscreen view.

- Close the fullscreen view with the Esc key or the (fullscreen exit) button.
- Navigate through the book pages with (previous page) and (next page) buttons, or with the slider control at the bottom.

• Use the *DOWNLOAD RESOURCE* button below the viewer to download the ePub file to your computer.



6.2.5.5 Slideshow Viewer options

To navigate the slides of a slideshow, you may use the on-screen navigation controls or your keyboard's arrow keys.

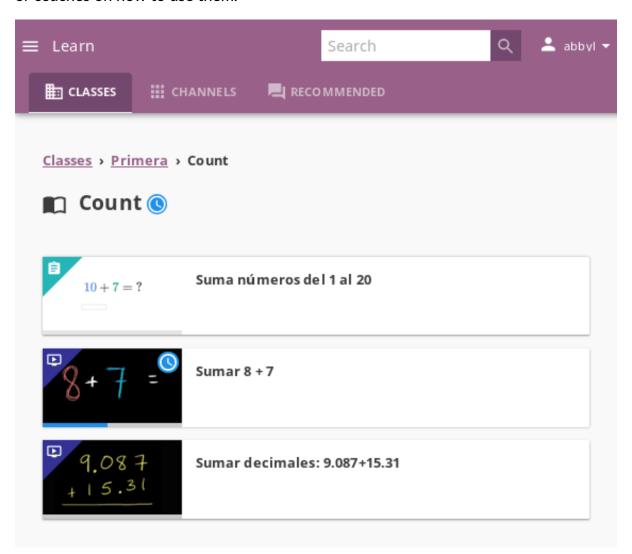
• Use the (fullscreen) button in the upper right corner to open the ebook in fullscreen view.

- Navigate the slides with the left arrow (\leftarrow) or the right arrow (\rightarrow) keys on your keyboard, or the (previous page) and (next page) buttons on the side of the slideshow.
- You can choose a specific slide by clicking the round icons at the bottom of the slideshow view.

6.2.6 Lessons

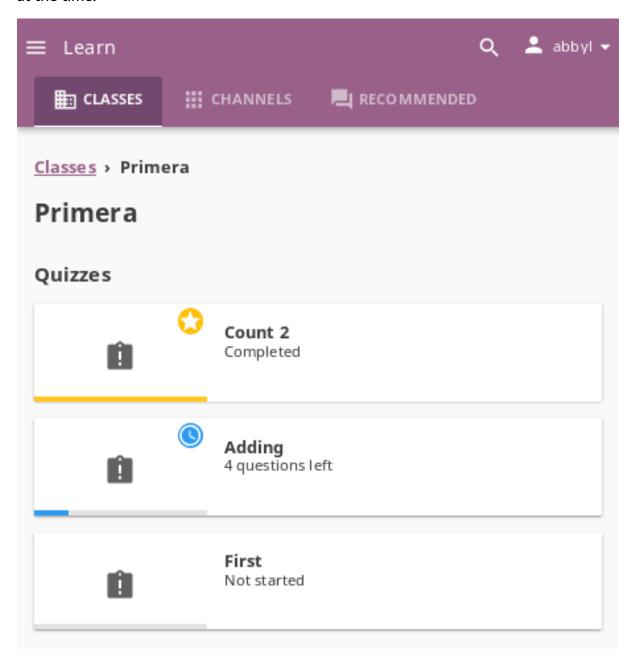
Your teacher or coach may prepare a lesson, a recommended set of learning materials for you or your class to view. You may have more than one lesson available at the time in the **Classes** tab, below the **Lessons** heading.

Click on a lesson title to open its materials, and follow the indications of your teachers or coaches on how to use them.



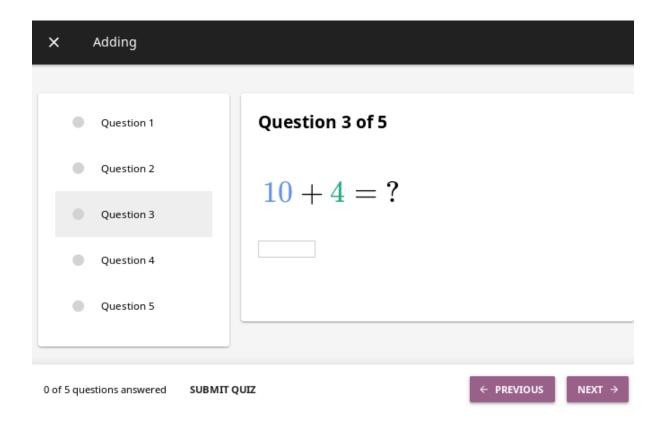
6.2.7 Quizzes

If your teacher or coach scheduled an quiz for you or your class, it will be available in the **Classes** tab, under the **Quizzes** heading. You may have more than one quiz available at the time.



If the quiz is listed as Not started, follow these steps.

- 1. Click on the quiz when you are ready to start taking it.
- 2. You can go on answering the questions in the order you prefer: move through questions with *PREVIOUS* and *NEXT* buttons, or click on the question number in the column on the left side.

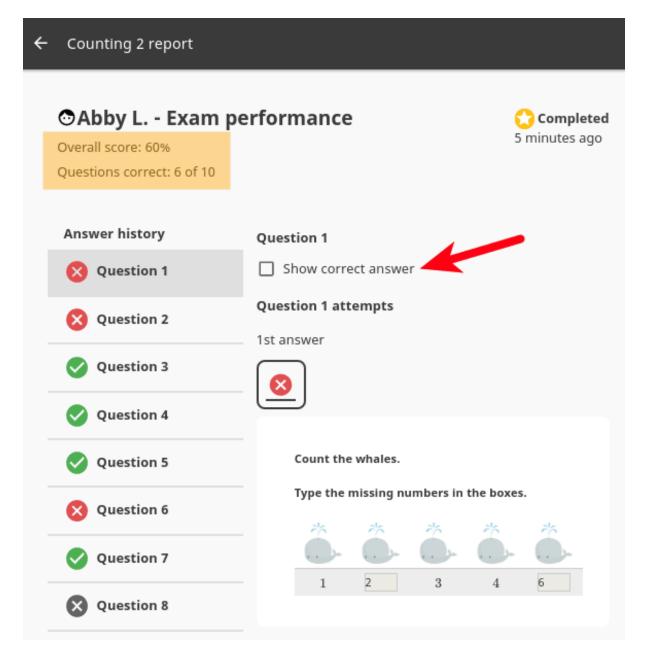


- 3. Each time you fill in the answer field, or select one of the available options, the question will be marked by a colored dot in the column on the left side.
- 4. You can review and correct your answers to all questions as many times you need before submitting.
- 5. Press the Back to quiz list if you want to pause the quiz and come back later.
- 6. Press the button SUBMIT QUIZ when you want to submit it for grading.

A quiz that you did not yet submit will be marked with the (in-progress) icon, so you can easily recognize it, and click to resume when you are ready.

Once you complete and submit a quiz, it will be marked with the (completed) icon, but you can still click on it to see the score and review the report with your answers.

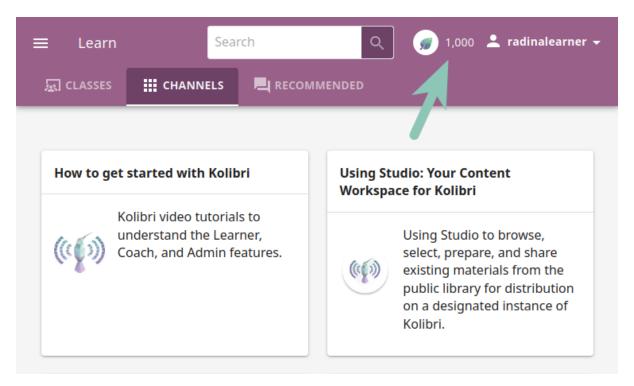
Tip: Use the **Show correct answer** checkbox to visualize the answer for the questions that you did not answer correctly.



6.2.8 Points

Every time you complete a resource (finish viewing a video, reading a document, or when you achieve the required number of correct answers in an exercise), you will be rewarded points .

You can keep track of the total points you have in the upper right corner, near the user menu.



Total points will also be visible on your *profile* page: access it from the main sidebar menu (below **Learn**), or from the user menu.

Frequently Asked Questions

7.1 How much does Kolibri cost to install?

Kolibri is free and open-source⁵⁴ software!

7.2 Do I need the internet to run Kolibri?

No! You can bring or send a storage device (USB or HDD unit) with Kolibri installer and channels downloaded somewhere with available internet connection, and install everything on an completely offline device.

In a nutshell, Kolibri can run independently of internet availability, but you need to procure the installer and channels from somewhere for the initial installation and for subsequent upgrades.

One possibility is to have Kolibri installed in one location with internet connection, where you can import channels from Kolibri Studio⁵⁵ (curriculum tool and content curation server), and then export them to removable USB drives that you bring or send to offline locations (rural schools, refugee camps, etc.) to import locally.

7.3 How do I get help if something isn't working?

Please refer to the *Troubleshoot and Support* section of this guide.

⁵⁴ https://www.fsf.org/about/what-is-free-software

⁵⁵ https://studio.learningequality.org/

7.4 What languages is Kolibri available in?

Both Kolibri and Kolibri Studio⁵⁶ are translation-ready and currently available in these languages:

Language	Kolibri	Kolibri Studio
English	√	✓
Arabic	√	✓
Bengali	✓	
Bulgarian	✓	
Burmese	✓	
Chinese (simplified)	✓	
Chinyanja	✓	
Farsi	✓	
French	✓	✓
Fulfulde Mbororoore	✓	
German	✓	
Gujarati	✓	
Hindi (India)	✓	
Italian	✓	
Khmer	✓	
Korean	✓	
Marathi	✓	
Portuguese (Brazil)	✓	
Spanish (Latin America)	✓	✓
Spanish (Spain)	✓	
Swahili (Tanzania)	✓	
Telugu	✓	
Urdu (Pakistan)	✓	
Yoruba	✓	
Vietnamese	√	

To contribute to Kolibri and Kolibri Studio as a translator, you can get started over on our translations and internationalization page⁵⁷.

⁵⁶ https://studio.learningequality.org/

⁵⁷ https://learningequality.org/translate/

7.5 What are some typical implementation scenarios?

There is no typical implementation setting. However, we can share with you what we've learned from our community of KA Lite and Kolibri users. Some example implementation settings are provided below based on the presence of a coach and whether the settings allows for formal, non-formal, and informal learning.

	Coach	No Coach
Formal and Non-Formal	 School classroom Home schooling Supplementary education setting 	 After school program Supplementary education setting (computer labs model) Use in classroom that has teacher, but without coach engagement or monitoring
Informal	Tutoring session	Mobile school vansUse for homework only

7.6 What are some possible hardware configurations?

To implement Kolibri for multiple users you will need:

- 1. **Server device**: a computer that is running the Kolibri software (e.g. a desktop computer, laptop, or Raspberry Pi).
- 2. One or more **client devices** that have web browsers (laptops, tablets, desktop computers, etc)

Note: For a single-device implementation (1) and (2) can be the same computer, with the browser connecting to the locally running Kolibri server. To make the software accessible to multiple client devices, you will need to put them on the same local network

as the Kolibri server device (1), e.g. through a WIFI access point.

To read more details, see the full Kolibri Hardware Guide⁵⁸ and examples of Hardware Configurations for Kolibri⁵⁹ (PDF documents).

7.7 How can I aligned resources to local curricula?

Use Kolibri Studio⁶⁰ curriculum tool to curate channels aligned to your local requirements. Once you finish creating the channels on Studio, you can import them on all your Kolibri implementations for use in learning environments.

7.8 Who maintains Kolibri?

Kolibri is created, maintained, and operated by Learning Equality⁶¹.

To stay up-to-date on all our activities, follow our blog⁶², Twitter⁶³, and Facebook⁶⁴!

7.9 How are Kolibri implementations operated?

The Learning Equality team primarily works in our San Diego offices, building software and shaping our road map based on our interactions with our partners around the world. We work with individual humanitarians and NGOs of all sizes to help them distribute Kolibri to offline communities around the world, and will work on site for research and training purposes.

7.10 What is Kolibri's affiliation with Khan Academy?

Kolibri is an independent, open-source project maintained by Learning Equality⁶⁵, and is not officially affiliated with Khan Academy, although they are very supportive of the

⁵⁸ https://learningequality.org/r/hardware-guide

⁵⁹ https://learningequality.org/r/hardware

⁶⁰ https://studio.learningequality.org/

⁶¹ https://learningequality.org/

⁶² https://blog.learningequality.org/

⁶³ https://twitter.com/LearnEQ/

⁶⁴ https://www.facebook.com/learningequality

⁶⁵ https://learningequality.org/

Kolibri project.

7.11 Can I contribute to Kolibri?

Yes, contributions are welcome⁶⁶! We can use help with feedback, bug reports, software development, and translations.

⁶⁶ https://kolibri-dev.readthedocs.io/en/develop/contributing/ways_to_contribute.html

Get in touch

8.1 Getting support from Learning Equality and our community

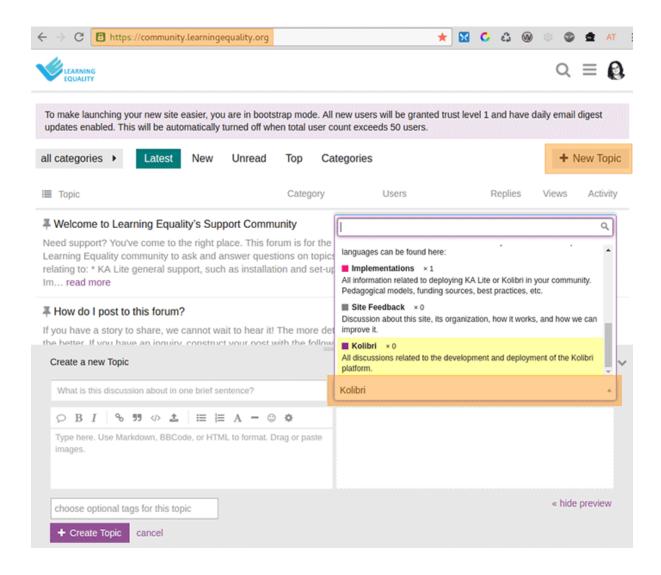
Due to the open-source nature of our work, we encourage that all inquiries, inputs, contributions and feedback are openly shared in our Community Forums⁶⁷, so that any user with similar questions to yours can benefit from the answer, and have a centralized place to search for it. *Please consider supporting others whenever you can.* Your goals are likely overlapping with other users of Kolibri, so you may consider yourself as part of a community of like-minded practitioners!

The first thing you need to do is register on the forum. Once registered, please read the the first two pinned topics (*Welcome to LE's Support Community* and *How do I post to this forum?*)

You can add a new topic with the + New Topic button on the right. Make sure to select the appropriate category in the **Create a New Topic** window to facilitate the triage and response processes.

⁶⁷ https://community.learningequality.org/

8.2 Feedback 206



8.2 Feedback

8.2.1 New ideas

Until we can present a proper feedback platform, we encourage you to post any new ideas to the Community Forums⁶⁸.

8.2.2 Technical issues

Try reading the *Troubleshooting* section of this guide first.

In order to report a technical issue, you can either use the *Support* category in our forum, or open up an issue report in our public software repository, following the guidelines:

⁶⁸ https://community.learningequality.org/

github.com/learningequality/kolibri69

8.3 Contributions and development

Kolibri is an open-source project, and as such, contributions from the tech community are welcomed, encouraged and appreciated. If you'd like to contribute to Kolibri, please refer to our developer docs:

kolibri-dev.readthedocs.io⁷⁰

⁶⁹ https://github.com/learningequality/kolibri/

⁷⁰ http://kolibri-dev.readthedocs.io/

Learners and students

Whether you are using Kolibri at your school, in a training center or at home, learn how to *open* it on your device, what kind of *materials and activities* can you work with, and how to submit *quizzes* created by your coaches or tutors.

Coaches and teachers

Read how to *monitor activity and track the progress* of your learners all the way to single answers to particular questions. Create and *manage different learner groups*, *assign lessons*, administer *quizzes* and view reports.

Administrators

Begin by reading how to *install* and *start* Kolibri server on the supported platforms, and *configure other devices* in the local network to access it. Proceed on how to *import channels*, create and manage *users* and *classes*. Configure the *settings for your facility*, and assign or edit *permissions* for other users. Learn how to work with Kolibri from *the command line*, *troubleshoot network issues*, and ask for support on our *Community Forums*.

Happy learning with Kolibri!

