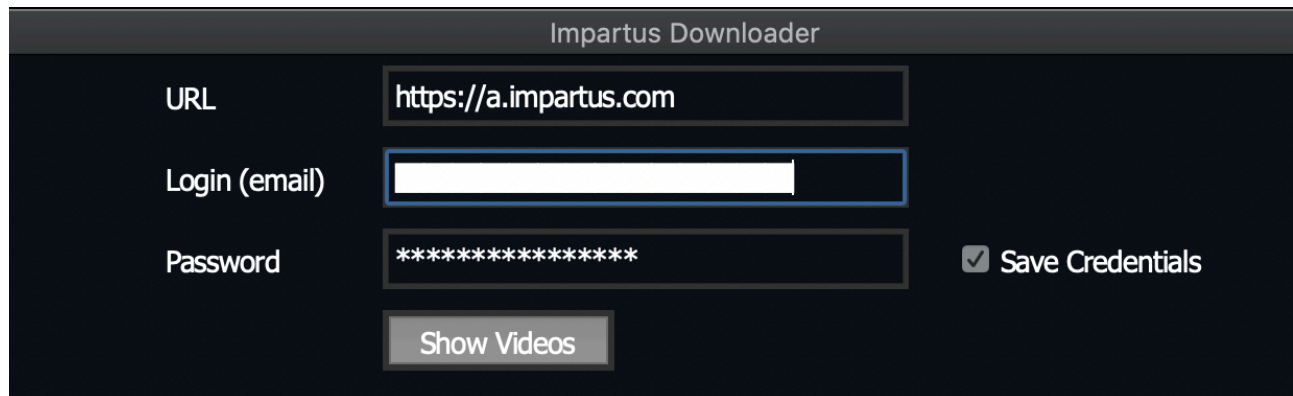


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Authentication Dialog

The application presents an authentication dialog upon launch.



Impartus Downloader

URL

Login (email)

Password ☒ Save Credentials

Show Videos

URL

Usually <https://a.impartus.com>, the URL endpoint can be changed to any other url hosted by Impartus platform.

Login

User email address for the Impartus platform.

Password

User password.

Save Credentials

When checked, the credentials (*login_email* and *password*) are saved in [etc/creds.conf](#). On the next application launch, the credentials shall be populated in the authentication dialog. Unchecking the *Save Credentials* checkbox reverts the [etc/creds.conf](#) to it's default values, i.e. empty string for *login_email* and *password*.

Show Videos

When clicking on the button, the application authenticates with the Impartus platform and fetches a list of lectures available to the user. The application fetches both the *regular* and *flipped* lectures. The impartus api returns lectures grouped by subjects, the most recently updated subject content listed first.

Content

Index column

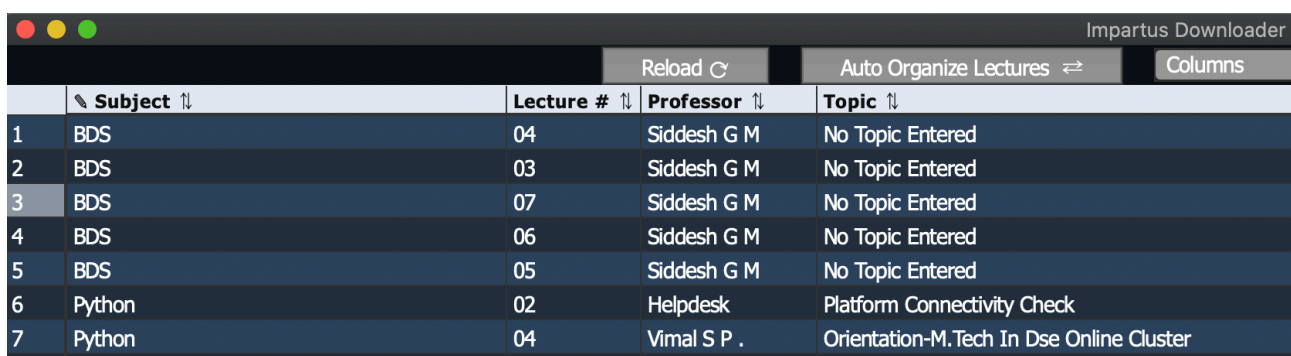
The leftmost column shows the video number.

Editable Field(s)

Subject column has an *editable* flag set as indicated by the symbol '✎'. Clicking on a *editable* field lets the user update the value of the field. One can choose to use a shorter *Subject* name instead of the default long names.

Sort Icons

Clicking on a column name sorts the table, first by descending and then ascending order on a subsequent click. The unsorted icon '↕' changes to descending '▼' or ascending '▲'.



The screenshot shows the 'Impartus Downloader' application window. It features a table with columns: 'Subject' (with a pencil icon for editing), 'Lecture #', 'Professor', and 'Topic'. Each column header has a sort icon (↕). The table contains 7 rows of data. Above the table are buttons for 'Reload' (with a circular arrow icon), 'Auto Organize Lectures' (with a double-headed arrow icon), and a 'Columns' button. The table data is as follows:

	✎ Subject ↕	Lecture # ↕	Professor ↕	Topic ↕
1	BDS	04	Siddesh G M	No Topic Entered
2	BDS	03	Siddesh G M	No Topic Entered
3	BDS	07	Siddesh G M	No Topic Entered
4	BDS	06	Siddesh G M	No Topic Entered
5	BDS	05	Siddesh G M	No Topic Entered
6	Python	02	Helpdesk	Platform Connectivity Check
7	Python	04	Vimal S P .	Orientation-M.Tech In Dse Online Cluster

Download Videos

Videos that are not yet downloaded have an empty progress bar field along with a symbol '⌂'. Clicking on *download video* button '↓' starts the download. Once the download is in progress, the *download video* button is changed to *pause* button '||'.

Pause / Resume downloads

Clicking the *pause* button suspends the thread which can be *resumed* by clicking the same button again labeled with the symbol '||▶'.

Upon completing the download, the application decrypts, encodes the streams. During this time the progress bar shows an hourglass symbol '⌚'.

Play lecture video / Open lecture folder

Once the video is successfully encoded, the *play video* '▶' and *open folder* '▲' buttons are enabled. The *download video* button '↓' is subsequently disabled to prevent accidental re-download and overwrite of the downloaded video.

Completed lecture downloads show up with progress bar at 100% and marked with a success '✓' symbol.

Videos can be played from the application by clicking play video button '▶', the application uses the python *webbrowser* module to launch the default system launcher. It is recommended to associate .mkv file types to open with *VLC player*, in order to view multi-track files.

The *open folder* button ‘▲’ shows the folder where a lecture video is saved. The default configuration saves one lecture per folder to make it easy to associate backpack and other slides with a lecture video.

Download / View backpack slides

If a lecture has associated *backpack slides*, the corresponding *download slides* button ‘↓’ is enabled, clicking the *download slides* button ‘↓’ downloads the backpack slide and subsequently enables the *show slide* button ‘☰’.

Backpack slides of type *ppt*, *pptx*, *xls*, *xlsx*, *doc*, *docx*, *pdf* are supported by default configuration. All of these can be launched from the application by clicking the ‘☰’ button.

Duration ↕	Tracks ↕	Date ↕	Downloaded? ▼	Video	Video	Folder	Slides	Slides	Slides
2:00h	1	2021-04-18	<div><div></div></div> ✓	↓	▶	▲	↓	☰	📎
2:00h	1	2021-04-11	<div><div></div></div> 56%	⏸	▶	▲	↓	☰	📎
2:00h	1	2021-05-09	<div><div></div></div> ✓	↓	▶	▲	↓	☰	📎
2:00h	1	2021-05-02	<div><div></div></div> ✓	↓	▶	▲	↓	☰	📎
2:00h	1	2021-04-25	<div><div></div></div> ✓	↓	▶	▲	↓	☰	📎
1:00h	2	2020-03-25	<div><div></div></div> ✓	↓	▶	▲	↓	☰	📎
3:05h	2	2020-03-28	<div><div></div></div> ⓧ	↓	▶	▲	↓	☰	📎
2:40h	2	2020-04-04	<div><div></div></div> ⓧ	↓	▶	▲	↓	☰	📎
2:40h	1	2020-04-19	<div><div></div></div> ⓧ	↓	▶	▲	↓	☰	📎
2:40h	1	2020-04-18	<div><div></div></div> ⓧ	↓	▶	▲	↓	☰	📎

Attaching offline slides

One can download slides from sources other than impartus and use the *attach slides* button ‘📎’ to associate them to a lecture video.

The *attach slides* ‘📎’ button opens a file chooser dialog box, where one can select one or more files of types *ppt*, *pptx*, *xls*, *xlsx*, *doc*, *docx*, *pdf*. The selected files are copied to the same folder where lecture video is saved.

Toolbar buttons

Reload

The *reload* button fetches fresh content from the server.

Auto Organize lectures

The default configuration saves the video lectures at *wilp/<subject>/<professor-name>/<lecture-no>/<lecture-topic>-<date>.mkv*

Occasionally the impartus lectures do not a topic set for them. In such cases, the impartus api returns the topic as - *No Topic Entered*, the same is used by the application in the mkv filename, when saving a lecture video. If subsequently the topic is updated, it is desirable to have it reflected in the lecture video's filename to easily identify the content of the video.

Another similar scenario arises, if a user wants to specify a shorter name (say BDS) for a subject, instead of the longer default i.e. *Big Data Systems (S1-20 DSECLZG522)*. The application in its default configuration uses a short subject name to save the lecture / slides, thus any new video lecture shall be saved at *wilp/BDS/...* instead of *wilp/Big Data Systems (S1-20 DSECLZG522)*. However, there may be previously downloaded lectures videos that are saved under a folder with a longer name, and might need to be moved to the new location.

The application detects such differences in the expected and real lecture location / names, and enables the *Auto Organise Lectures* button if any organisation is needed.

Clicking the *Auto Organise Lectures* button moves and renames the lectures to their new expected path, and cleans up any empty leftover directories as a result of the movement.

Columns

The dropdown shows the list of all the available columns, a user can hide one or more columns to make more screen space for the content.

Flipped Lecture Quality

If the user has access to *flipped* lectures, the table list shows the flipped lectures along with the regular lectures.

Flipped Lecture Quality button is enabled when a flipped lecture is found.

Impartus platform supports multiple resolutions for the flipped lectures.

The application allows the user to pick any of the supported resolutions when downloading a flipped lecture.

The default configuration is set to 'highest', which looks for a flipped lecture url with resolution *1280xHD*, followed by *800xHigh*, *600xMedium* and *400xLow* (in that order) and picks up the first such url found.

UI Color Scheme

The colored radio buttons on the extreme right let a user choose the color scheme for the UI. More color schemes can be added to etc/colorschemes.conf .

Menu Bar

The menu bar presents the same set of options available in the toolbar, plus the help section. One can check for new application updates, and see the release changeless by clicking *Help -> Check for Updates...*

Configuration

The following configuration files are used by the Impartus Downloader application -

impartus.conf

target_dir

Top level directory under which all the lecture videos (and slides) will be saved.

export_variables

Some platforms (Linux) need environment variable to be set in order to launch a given application launcher.

debug

If true, shows extra debugging logs, leaves temporary files created during the video downloads / encoding.

progress_bar

Choose whether to use unicode symbols or ascii characters for progress bar display.

content_font

Font name for the application content.

header_font

Font name for table header.

content_font_size

Font size for the application content.

header_font_size

Font size for the table header.

retry_wait

Wait time in seconds before retrying a failed download.

video_quality

Video quality for the flipped lecture downloads.

video_quality_order

Support resolutions in high to low order.

slides_upload_window

Threshold in days, maps a video to a slide that is uploaded up to N days after publishing the video.

allowed_ext

List of attachment types (for both backpack slides and manually downloaded slides) that can be associated to a lecture video.

use safe paths

Remove special characters, sanitize file paths before saving the lecture video / slide.

video path

File path format for lecture videos

slides path

File path format for lecture slides.

mappings.conf

Contains a yaml format mapping for subjectName long names (at server) to short names (user specified)

color-schemes.conf

Contains yaml formatted hex colour values for various UI components, clubbed under a name like 'monochrome', 'blue' or 'purple'

Also contains a entry named 'default' set to one of the above values.

Additional colour schemes can be added to this file.

creds.conf

Contains yaml formatted configuration to save user credentials. Default values for both login_email and password are empty strings ''.