

Creating Multimedia Resources using FOSS

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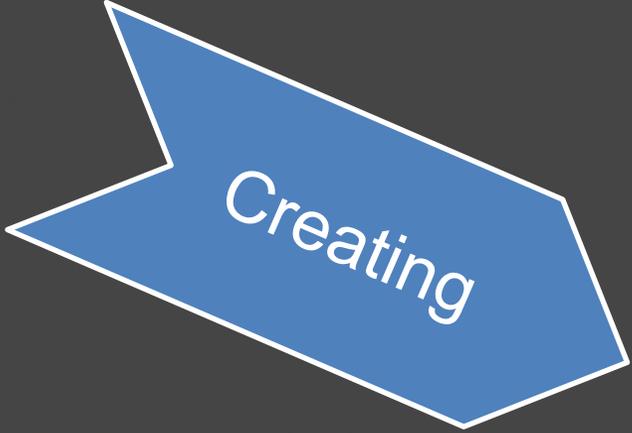
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JAMIA MILLIA ISLAMIA (A CENTRAL UNIVERSITY)

NEW DELHI

What is FOSS?

❖ Free and Open Source Software



Creating e-Resources (Multimedia)

- ❖ Formats
 - Videos, animation, simulation etc.
- ❖ Process of development
 - ADDIE model
- ❖ Tools for Development
 - Studio/software

Creating Interactive Resources

H5P (= HTML5 Package)

Lumi (<https://lumi.education/>)

Creating Interactive Video (H5P)

H5P (= HTML5 Package) is a free and open-source content collaboration framework based on JavaScript.

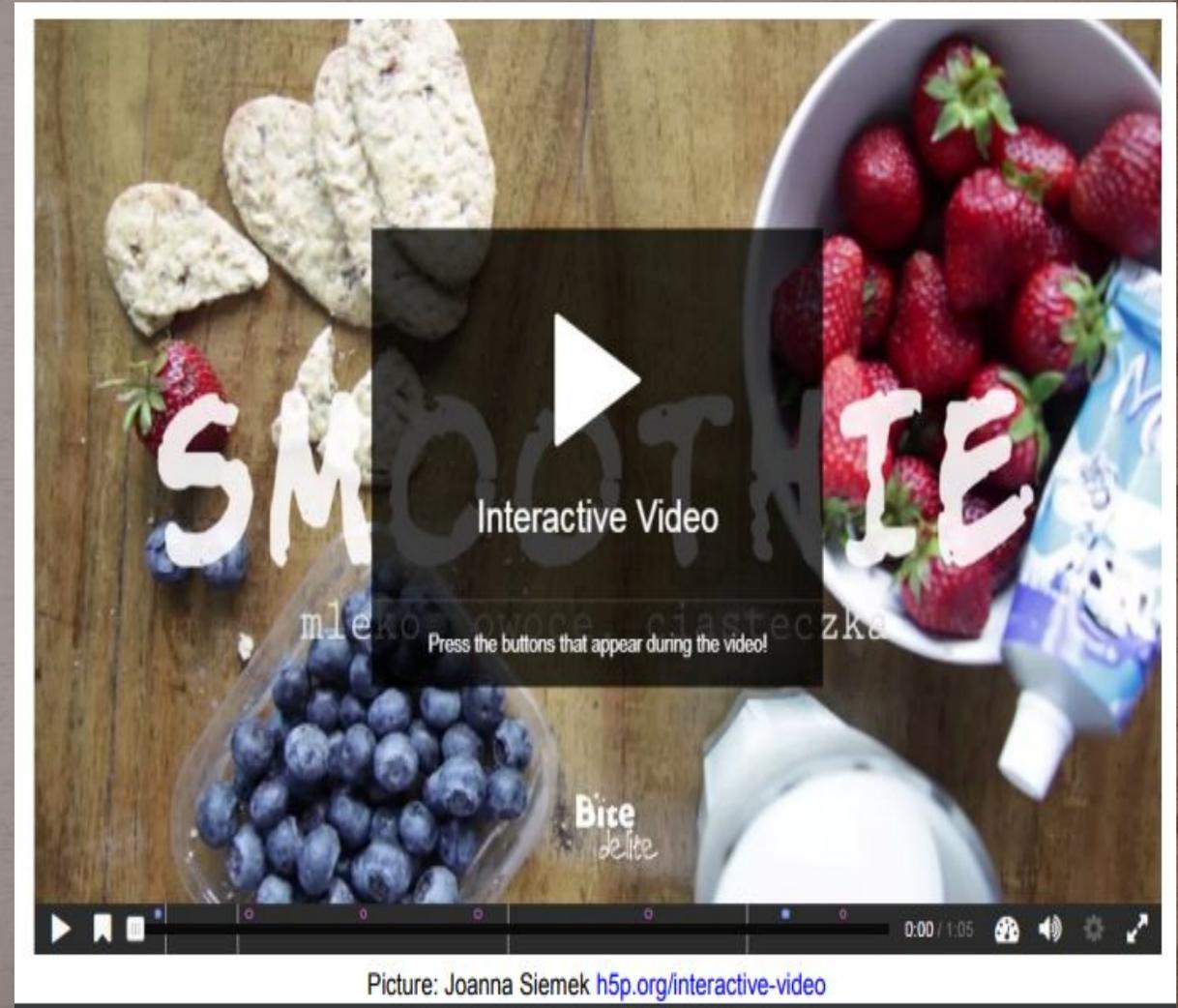
To create, share and reuse interactive HTML5 content.

Why Interactive Resource ?

- Students are actually watching video?
- Provide opportunities for active participation
- Students can comment and generate discussion around the content
- Using the analytics (viewing time, response etc.) provided by interactive video platform, teacher can get insights where the learners are struggling etc.
- Questions can be configured to perform adaptive behavior

Interactive video

Make your videos more engaging by adding multiple choice and fill in the blank questions, pop-up text and other types of interactions to your videos.



Click “create free account” button to create an account.



Search h5p.org



[Examples & downloads](#)

[Documentation](#)

[Goals & roadmap](#)

[Forum](#)

[Log in](#)

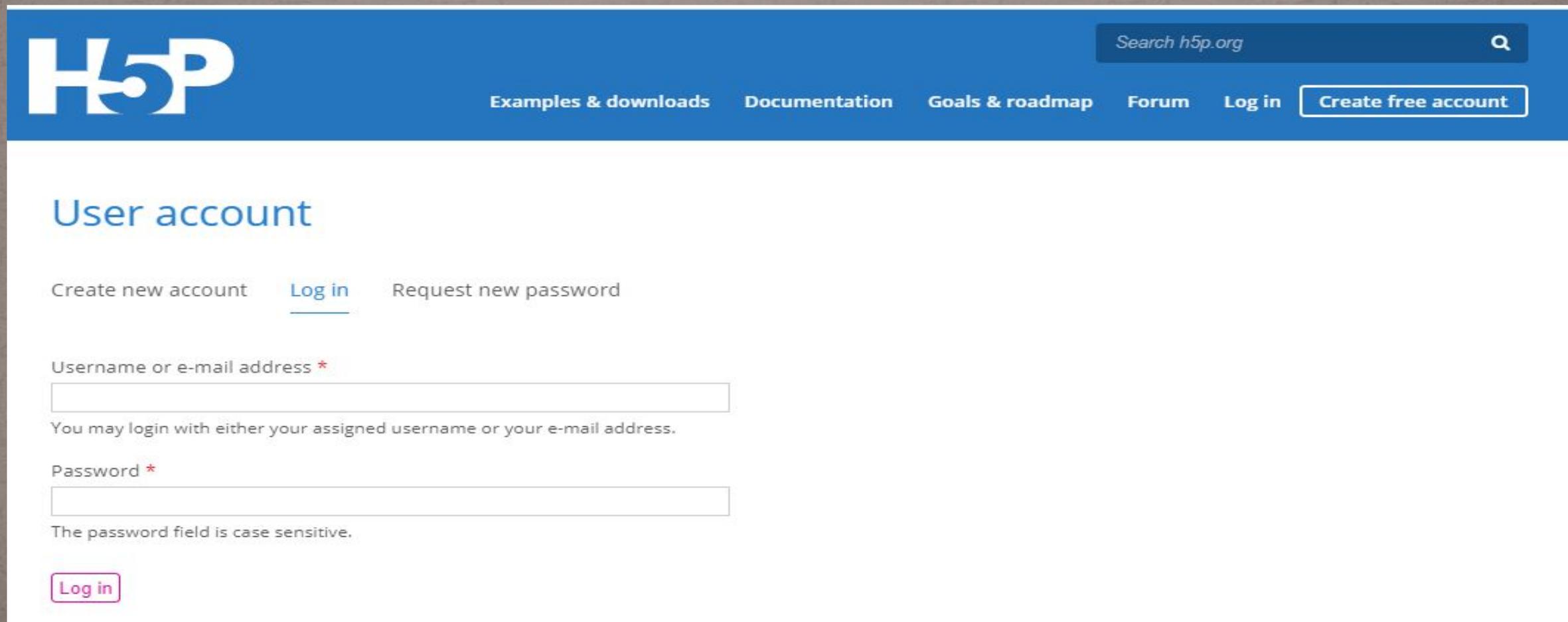
[Create free account](#)

CREATE, SHARE AND
REUSE INTERACTIVE
HTML5 CONTENT IN YOUR
BROWSER



feedback

Login using username and password.



The screenshot shows the H5P.org website's login interface. At the top, there is a blue navigation bar with the H5P logo on the left, a search bar with the text "Search h5p.org" and a magnifying glass icon on the right, and a series of navigation links: "Examples & downloads", "Documentation", "Goals & roadmap", "Forum", "Log in", and a "Create free account" button. Below the navigation bar, the main content area has a heading "User account". Underneath this heading, there are three links: "Create new account", "Log in" (which is underlined), and "Request new password". The "Log in" section contains two input fields. The first is labeled "Username or e-mail address *" and has a text input box below it. Below this field is a note: "You may login with either your assigned username or your e-mail address." The second input field is labeled "Password *" and has a text input box below it. Below the password field is a note: "The password field is case sensitive." At the bottom left of the login section, there is a "Log in" button.

H5P

Search h5p.org

Examples & downloads Documentation Goals & roadmap Forum Log in Create free account

User account

Create new account Log in Request new password

Username or e-mail address *

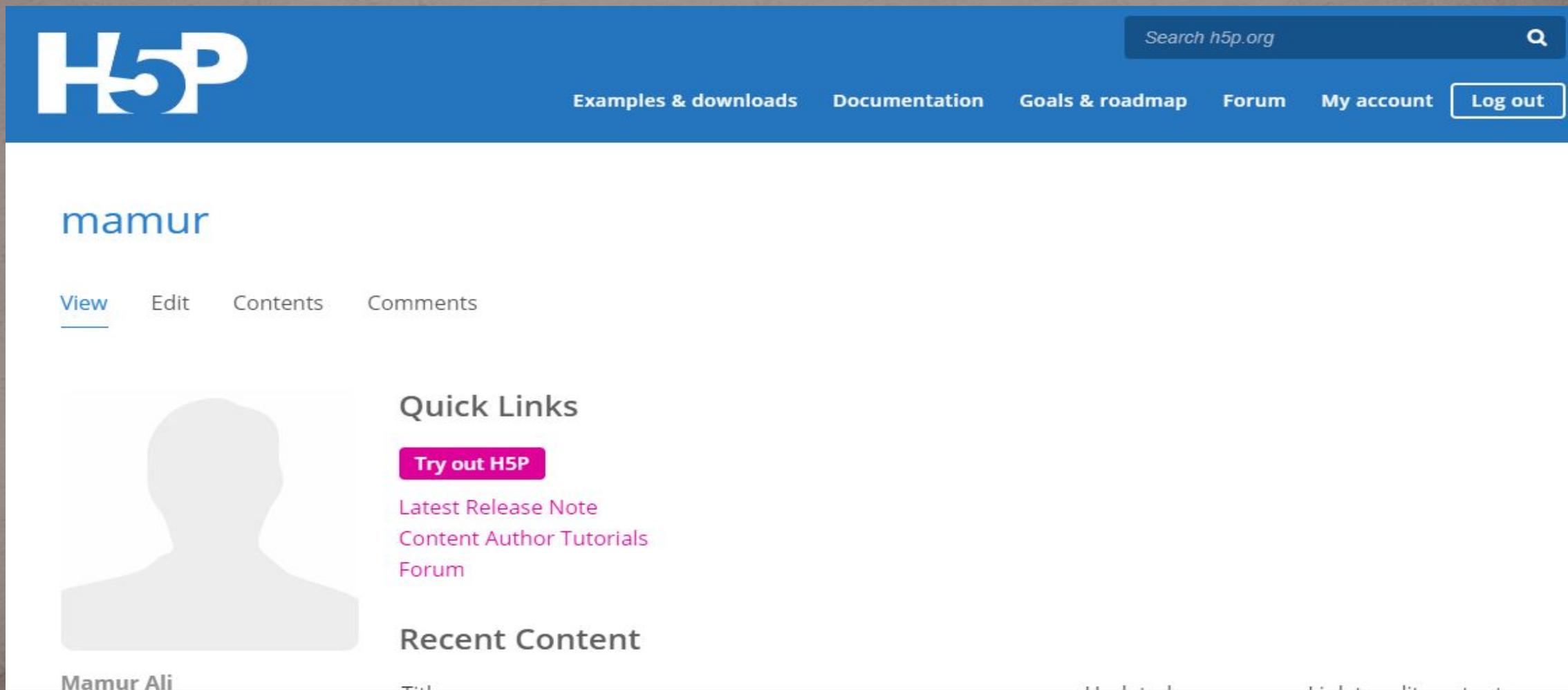
You may login with either your assigned username or your e-mail address.

Password *

The password field is case sensitive.

Log in

Click “Try out H5P” to create new content

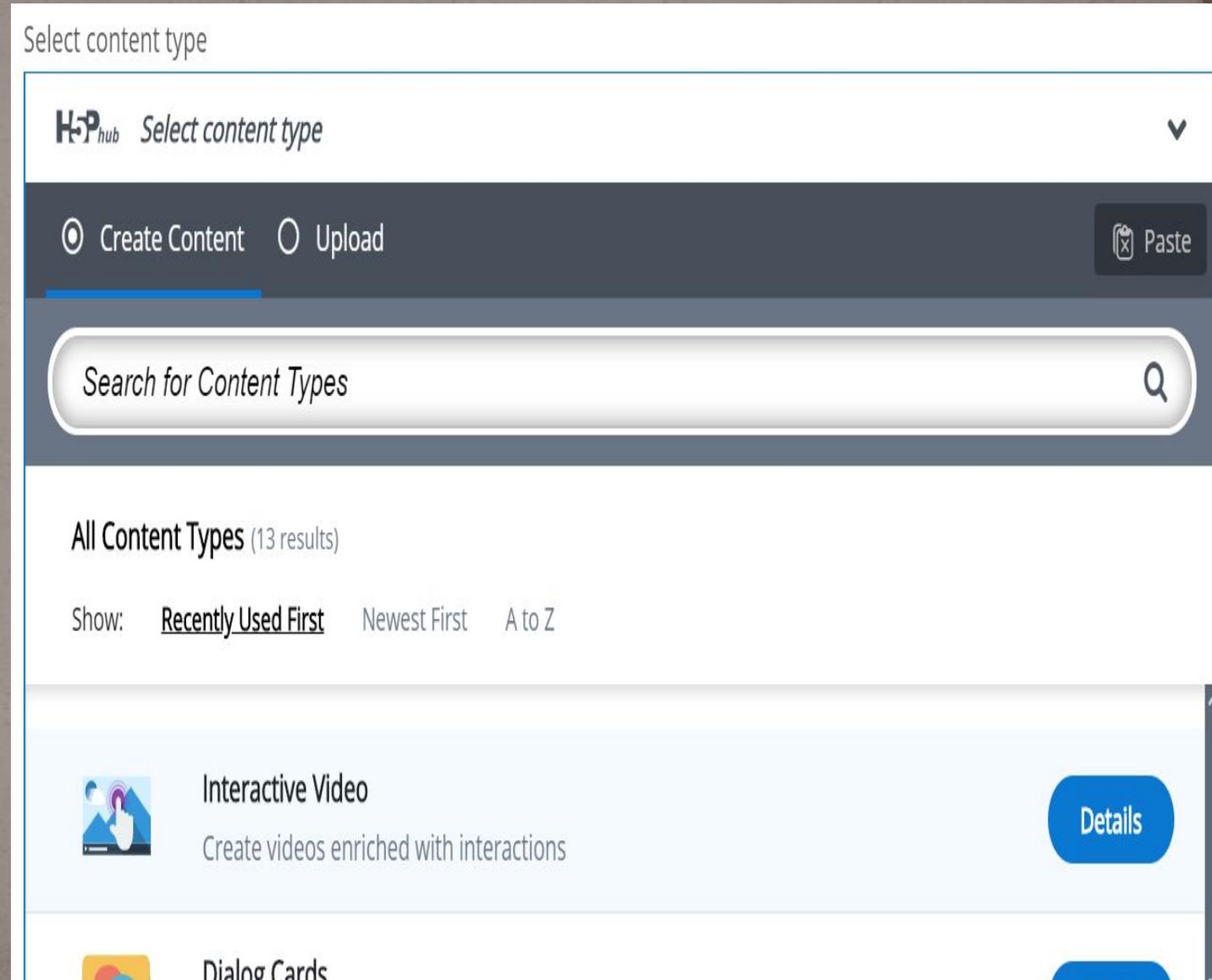


The screenshot shows the H5P.org website interface. At the top left is the H5P logo. To its right is a search bar with the text "Search h5p.org" and a magnifying glass icon. Below the search bar is a navigation menu with links for "Examples & downloads", "Documentation", "Goals & roadmap", "Forum", "My account", and a "Log out" button. The main content area displays the user profile for "mamur". Below the name are tabs for "View", "Edit", "Contents", and "Comments". A profile picture placeholder is shown on the left. To the right of the placeholder is a "Quick Links" section containing a prominent pink "Try out H5P" button, and links for "Latest Release Note", "Content Author Tutorials", and "Forum". Below this is a "Recent Content" section.

Creating an Interactive video in H5P.org

Choose **Interactive video** option from the list of Content types or type “interactive video” in search option.

Then click on “details” button



The screenshot shows the 'Select content type' interface on H5P.org. At the top, there is a header with the H5P logo and the text 'Select content type'. Below the header, there are two radio buttons: 'Create Content' (which is selected) and 'Upload'. To the right of these buttons is a 'Paste' button. Below the buttons is a search bar with the placeholder text 'Search for Content Types'. Under the search bar, it says 'All Content Types (13 results)'. Below this, there are three sorting options: 'Show: Recently Used First', 'Newest First', and 'A to Z'. The first result is 'Interactive Video', which has a small icon of a hand pointing at a screen. Below the icon, the text reads 'Interactive Video' and 'Create videos enriched with interactions'. To the right of this text is a blue 'Details' button. Below the 'Interactive Video' result, the start of another result, 'Dialog Cards', is visible.

Click on “use” button .

The screenshot shows the H5P Hub interface for selecting content types. At the top, it says "H5P Hub Select content type" with a dropdown arrow. Below this are two radio buttons: "Create Content" (selected) and "Upload". To the right is a "Paste" button. A search bar contains the text "Search for Content Types" and a magnifying glass icon. Below the search bar is a back arrow. The main content area features a large card for "Interactive Video" by "Joubel". The card includes an icon of a hand pointing at a screen, a description: "Add interactivity to your video with explanations, extra pictures, tables, Fill in the Blank and multiple choice questions. Quiz questions support adaptivity, meaning that you can jump to another part of the video based on the user's input. Interactive summaries can be added at the e... [Read more](#)", and a "Content Demo" button. Below the card is a horizontal carousel of four video thumbnails, with left and right navigation arrows. At the bottom right of the interface is a prominent blue "Use" button.

Three Tabs: **Upload video, Add interactions and Summary task.**

Step 1: Upload/embed video.

 Interactive Video 

Title *

Metadata

 Tour

Used for searching, reports and copyright information



Step 1

Upload/embed video



Step 2

Add interactions



Step 3

Summary task

Add a video (upload limit 16 MB) *

Click below to add a video you wish to use in your interactive video. You can add a video link or upload video files. It is possible

Step 1: Upload/embed video.

Press the “+” button



Step 1

Upload/embed vi...



Step 2

Add interactions



Step 3

Summary task

Add a video (upload limit 16 MB) *

Click below to add a video you wish to use in your interactive video. You can add a video link or upload video files. It is possible to add several versions of the video with different qualities. To ensure maximum support in browsers at least add a version in webm and mp4 formats.

Note: To avoid abuse, H5P.org has limited file size on uploads to 16 MB. To use larger files you must use an external service or [Install H5P](#) on your web site.



Step 1: Upload/embed video.

Add a video link or upload video files.

Step 1 Upload/embed video

Step 2 Add interactions

Step 3 Summary task

Add a video (upload limit 16 MB) *

Click below to add a video you wish to use in your interactive video. You can add a video link or upload video files. It is possible to add several versions of the video with different qualities. To ensure maximum support in browsers at least add a version in webm and mp4 formats.
Note: To avoid abuse, H5P.org has limited file size on uploads to 16 MB. To use larger files you must use an external service or Install H5P on your web site.

Upload video file

or

Paste YouTube link or other video source URL



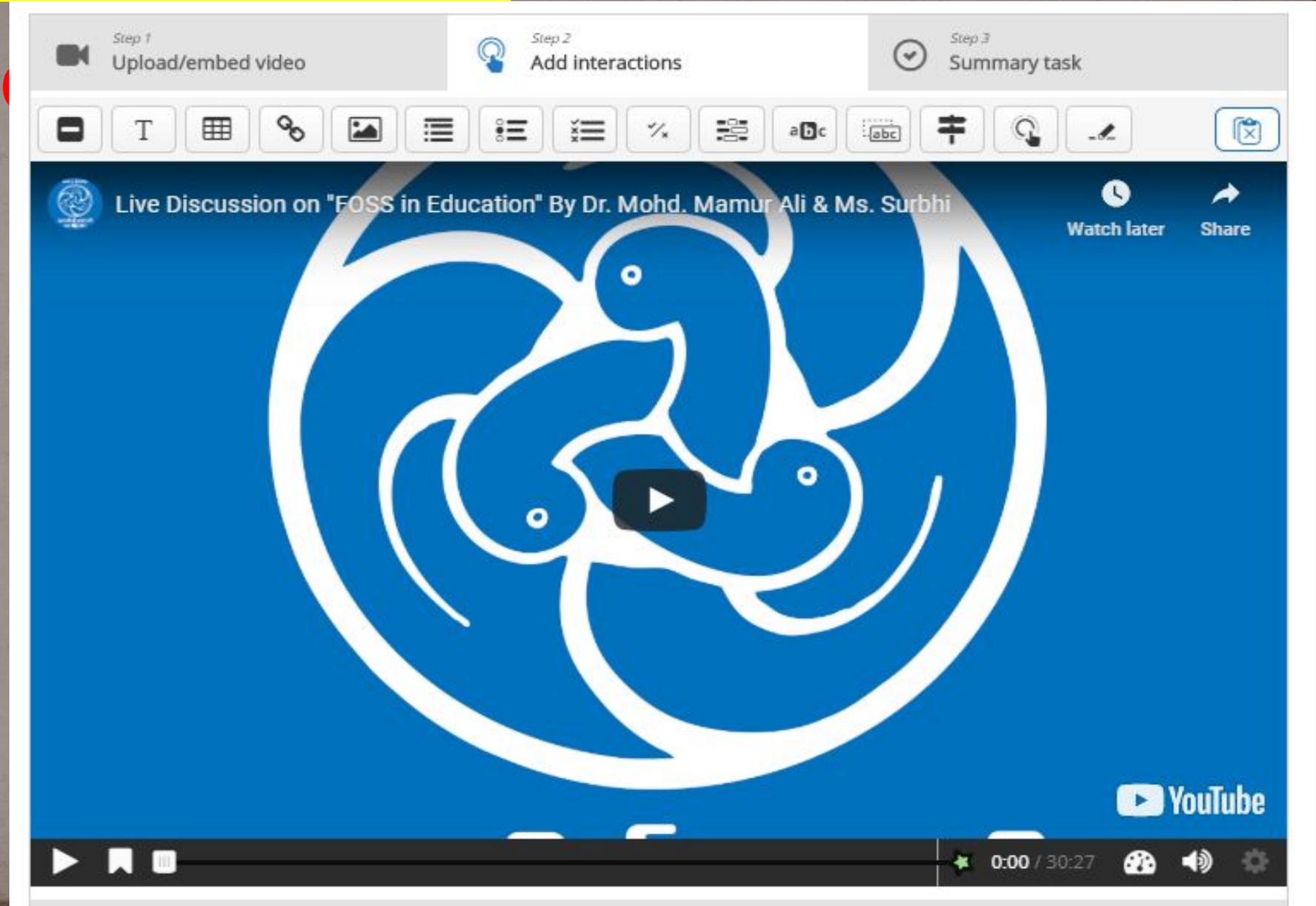


H5P supports all external video sources formatted as mp4, webm or ogv, like Vimeo Pro, and has support for YouTube links.

Insert Cancel

Step 2: Add interactions.

Press the **Add interactions** button



Step 2: Add interactions.

Use the **toolbar** to add interactions



Step 1

Upload/embed vi...



Step 2

Add interactions



Step 3

Summary task



T



abc

abc



Step 2: Add interactions.

The following H5P content types may be added :

- Multiple choice questions
- Free text questions
- Fill in the blank
- Drag and drop
- Interactive summaries
- Single choice question
- Mark the word activities
- Images
- Tables
- Labels
- Texts
- Links

Step 2: Add interactions :Text based interaction

click on icon in the toolbar



Step 1

Upload/embed vi...



Step 2

Add interactions



Step 3

Summary task



T



abc



Step 2: Add interactions :Text based interaction

Interactive Video

T Text

Delete

Done



Display time *

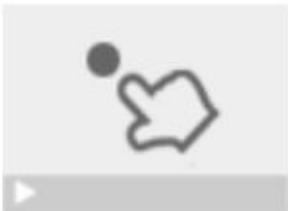
5:53.988

-

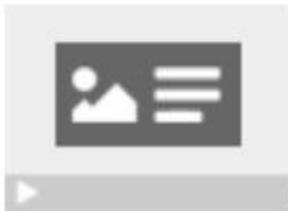
6:03.988

Pause video

Display as



Button



Poster

Button is a collapsed interaction the user must press to open. **Poster** is an expanded interaction displayed directly on top of the video

Step 2: Add interactions :Text based interaction

Label

Label displayed next to interaction icon.

What is FOSS?

Text *

Metadata



B *I* **S** I_x

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☰ ☰ ☰

🔗 🗨️

☰ ☰ ☰

Normal



FOSS stands for Free and Open Source Software.

body p

Step 2: Add interactions :Multiple choice item

click on icon in the toolbar



Step 1

Upload/embed vi...



Step 2

Add interactions



Step 3

Summary task



T



abc



Step 2: Add interactions :Multiple choice item

Interactive Video

Multiple Choice

Delete

Done



Display time *

6:15.925

-

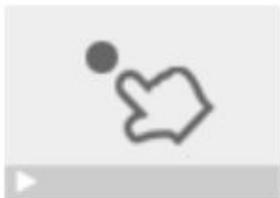
6:25.925

Pause video

"Full score required" option requires that "Pause" is enabled.

There already exists an interaction that requires full score at the same interval as this interaction. Only one of the interactions will be required to answer.

Display as



Button



Poster

Step 2: Add interactions : Multiple choice item

Create question
and its choices
Check the option
correct for answer

Question *

What is the full form of FOSS

Available options *

Free and Open Selection of Software

Text *

Free and Open Selection of Software

Correct

Tips and feedback

Free and Open Source Software

Text *

B I \times_a \times^a I_x   

Free and Open Source Software

body div

Correct

Step 3: Summary Task

Title * Metadata

 Copy

 Paste & Replace

Used for searching, reports and copyright information

Summary

Introduction text *

Will be displayed above the summary task.

Choose the correct statement.

Summary *

Textual

Default

Set of statements  

List of statements for the summary - the first statement is correct. *

Statement  



FOSS programs are those that have licenses that allow users to freely run the program for any purpose, modify the program as they want, and also to freely distribute copies of either the original version or their own modified version.

Step 3: Summary Task : Overall feedback

Overall Feedback

Define custom feedback for any score range

Click the "Add range" button to add as many ranges as you need. Example: 0-20% Bad score, 21-91% Average Score, 91-100% Great Score!

Score Range *

Feedback for defined score range

0 %	-	40 %	Satisfactory	✕
41 %	-	80 %	Good	✕
81 %	-	100 %	Great	✕

ADD RANGE

Distribute Evenly

Display at *

Number of seconds before the video ends.

5

Step 3: Summary Task : Behavioral settings

Behavioural settings of an interactive video

Start video at

Enter timecode in the format M:SS

Auto-play video

Start playing the video automatically

Loop the video

Check if video should run in a loop

Override "Show Solution" button

This option determines if the "Show Solution" button will be shown for all questions, disabled for all or configured for each question individually.

Override "Retry" button

This option determines if the "Retry" button will be shown for all questions, disabled for all or configured for each question individually.

Start with bookmarks menu open

This function is not available on iPad when using YouTube as video source.

Show button for rewinding 10 seconds

Prevent skipping forward in a video

Enabling this options will disable user video navigation through default controls.

Deactivate sound

Enabling this option will deactivate the video's sound and prevent it from being switched on.

Finishing up

Click “save” button

Show button for rewinding 10 seconds

Prevent skipping forward in a video
Enabling this options will disable user video navigation through default controls.

Deactivate sound
Enabling this option will deactivate the video's sound and prevent it from being switched on.

▸ Text overrides and translations

H5P Options

- Display buttons (download, embed and copyright)
- Allow download
- Embed button
- Copyright button

Save

Creating Animation

- ❖ Scratch
- ❖ Pencil2D
- ❖ Blender
- ❖ OpenToonz

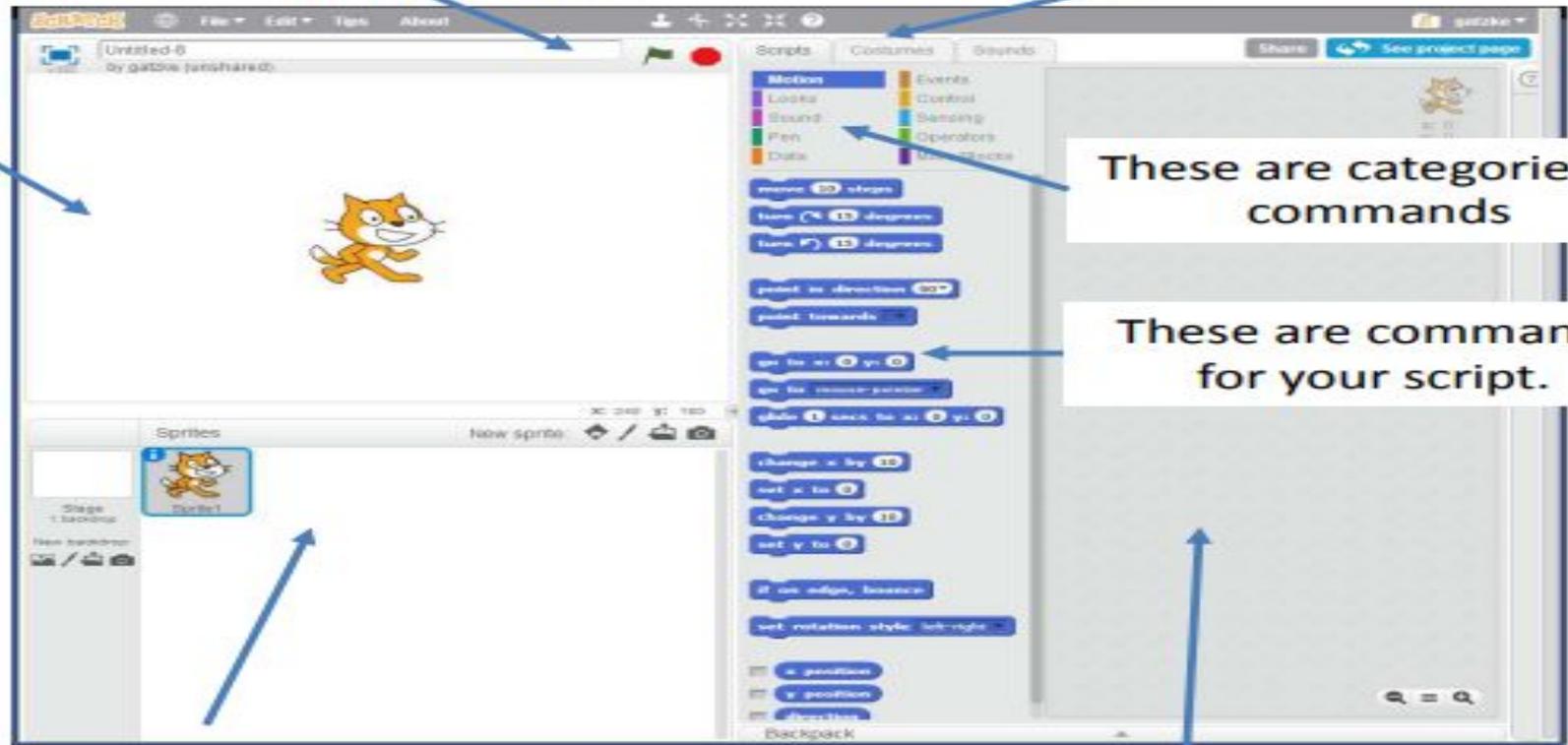
Creating Animation (Scratch)

Editing Screen Overview

This is where the animation / game is shown

These are the start/stop buttons

Change Scripts / Costumes / Sounds for a sprite using these tabs



This is where you can have multiple "sprites"
Sprites can have scripts to control actions.

This is where you can put commands,
edit sprite costumes, change sounds

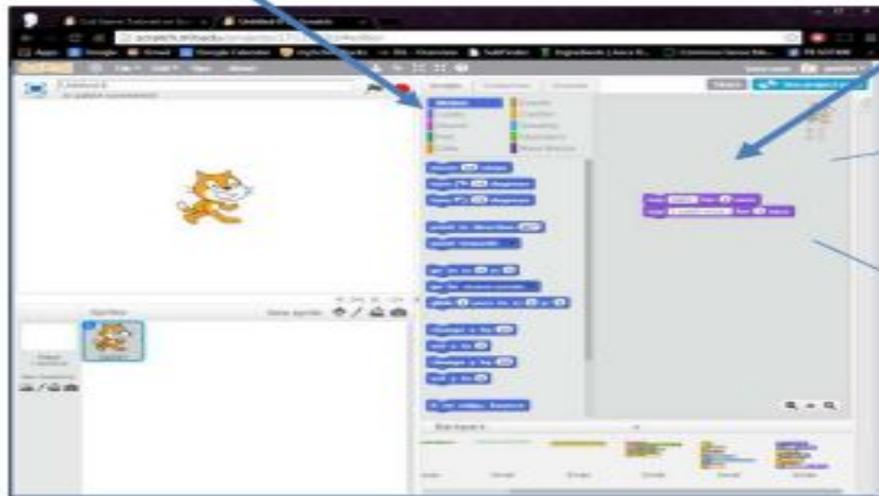
Scratch

A – Make the cat do something

1. Under scripts, click on the purple “Looks” from the command category list
2. Drag a “Say Hello! for 2 secs” block over to the script work area
3. Drag another “Say Hello! for 2 secs” block over and connect it under
4. Change the text from “Hello!” to “I catch mice...”
5. Double click on the two connected script commands
6. The cat should say the two phrases

“Looks” button

Script work area

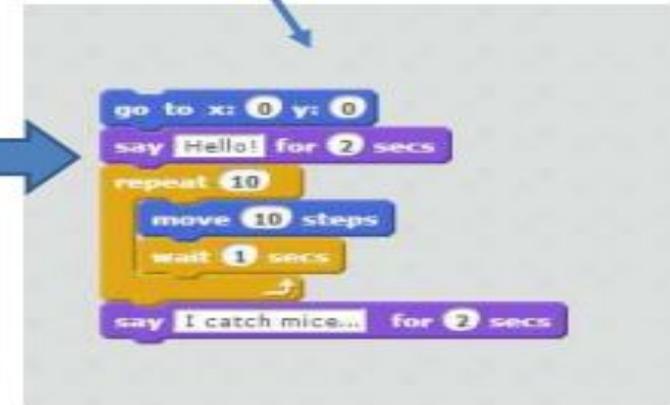
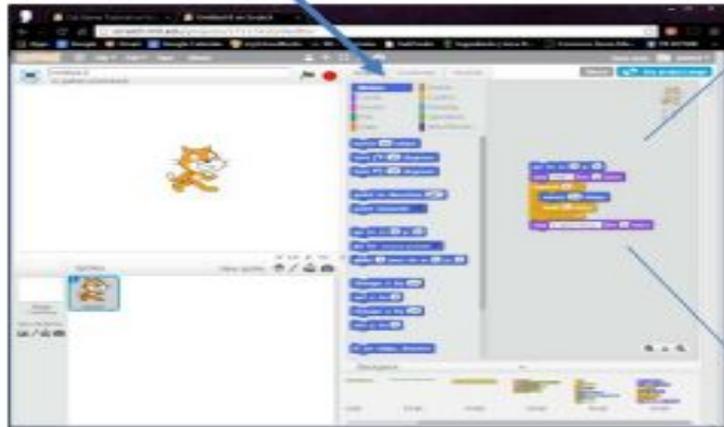


Scratch

B – Make the cat do something repeatedly

1. Under scripts, click on the “Motion” button from the command category list
2. Drag a “go to x: 0 y:0” block and a “move 10 steps” block to the script area
3. Under scripts, click on the “Control” button from the command category list
4. Drag a “Repeat 10” block and a “Wait 1” block over to the script area
5. Connect the blocks as below right
6. Double click the blocks to run your script
7. Double click again. The cat should return to the starting spot!

Motion and Control



A repeat block is used when you know exactly how many times you need to do something!

Scratch

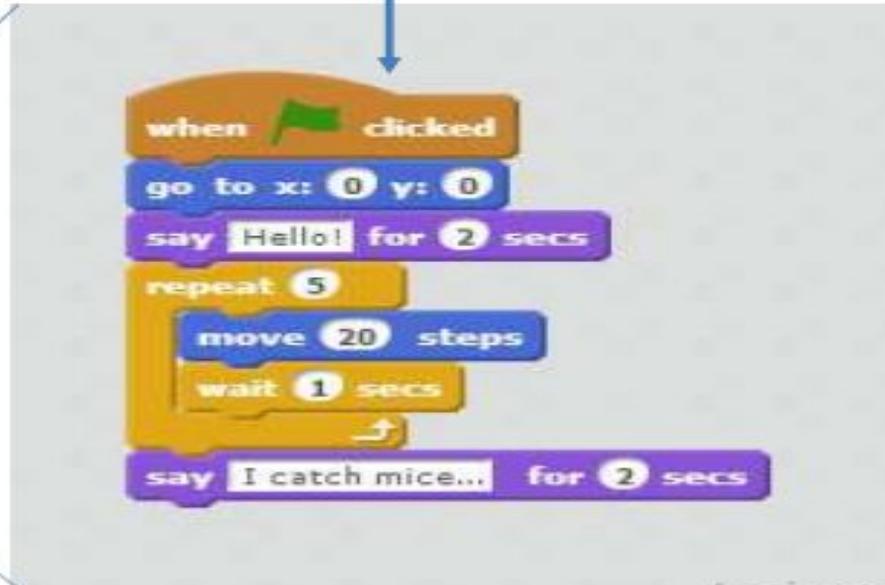
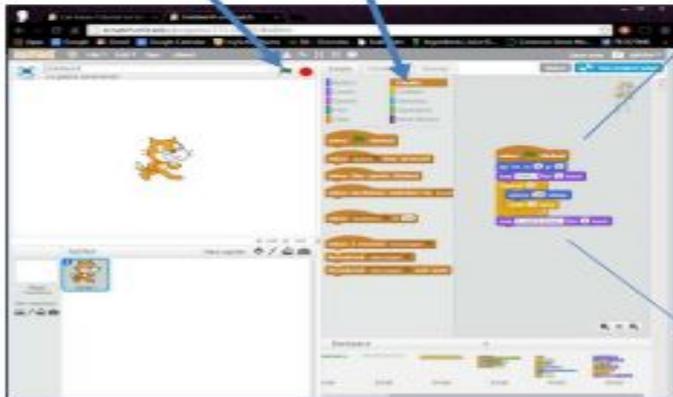
C – Run the script when you click start

1. Under scripts, click on the “Events” button
2. Drag a “When clicked” block the script area
3. Attach the script underneath the “When clicked” button
4. Change the “Repeat” block to only run 5 times
5. Change the “Move” block to move 20 times
6. Click the “Green Flag” button to start the animation



Green Flag

Events



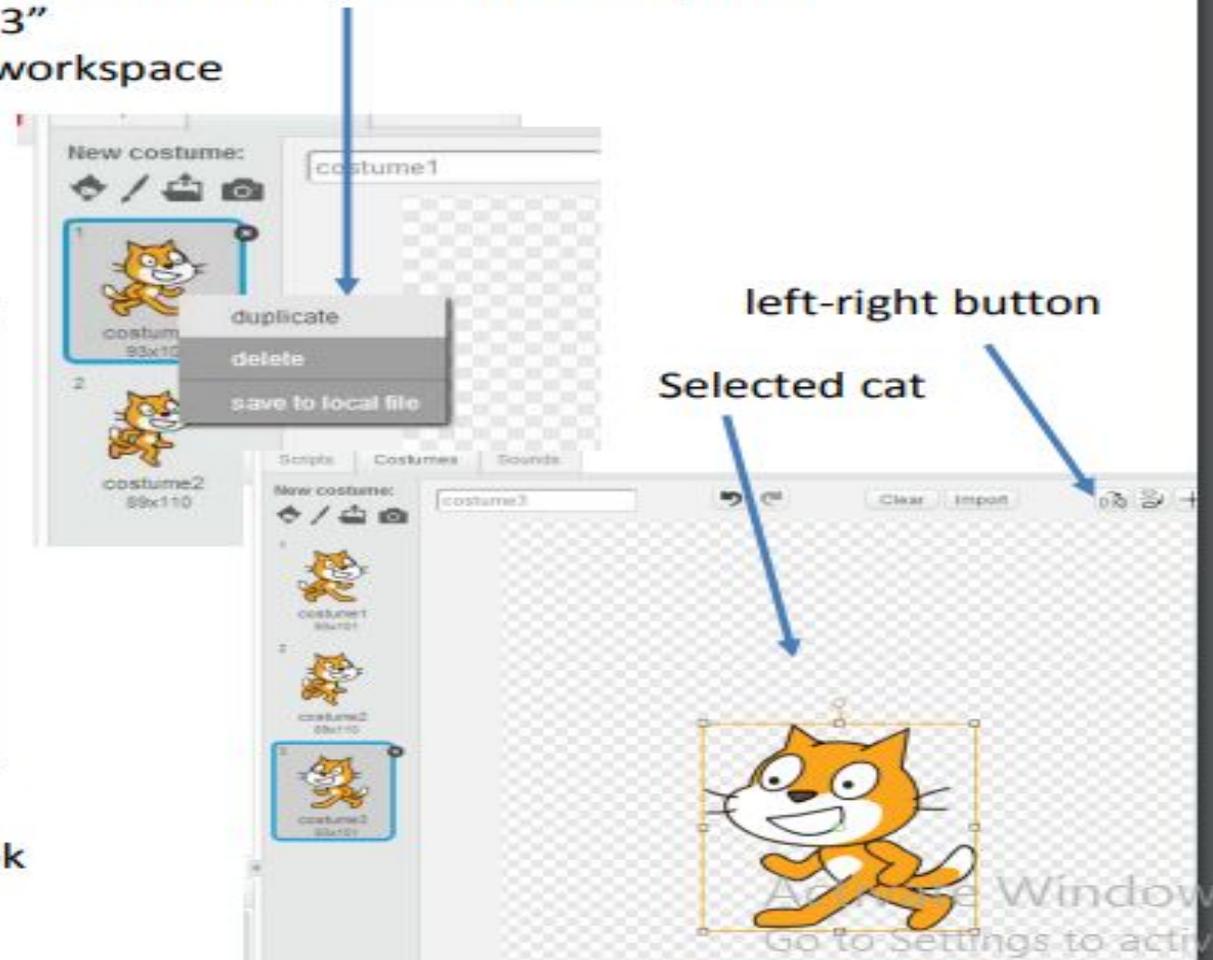
The Green Flag and Stop buttons run your game / animation.

Activate Windows
Go to Settings to activate

Scratch

D – Make a new costume for the cat

1. Click the “Costumes” tab
2. Right click the top cat sprite (labeled “costume 1”) and select “duplicate”
3. Select the new costume “costume 3”
4. Click on the cat image in the right workspace
5. The cat should be selected
6. Click on the flip left-right button



Scratch can use vector graphics which look nice on big and little screens.
Bitmap graphics not so much...

Creating Screencast Video

- ❖ Kazam
- ❖ CamStudio
- ❖ Screencam



Thanks for attention
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