



Useful Google Apps for Teaching and Learning

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About the Workshop

Synopsis

Improve your use of Google Apps to help facilitate creation and collaboration in your classroom. In this hands-on workshop, I will share some of the useful tools in Google that you can use to enhance students' learning such as Google Drive, Google Docs, Hangouts, and Movenote. I will also provide you some good practices of using these Google Apps for teaching and learning.

Workshop Objectives

By the end of this workshop, participants should be able to:

1. Understand and experiment the instructional technology tools in Google that support collaborative learning
2. Consider implementing technologies that support collaborative learning methodologies, especially student project work
3. Explore, experiment, and evaluate collaborative learning technologies in Google as a group

Session Prerequisites

In order to fully maximize the benefits of this workshop, participants will need to create a Google account and be comfortable using the Internet.

Getting Started with Google Apps

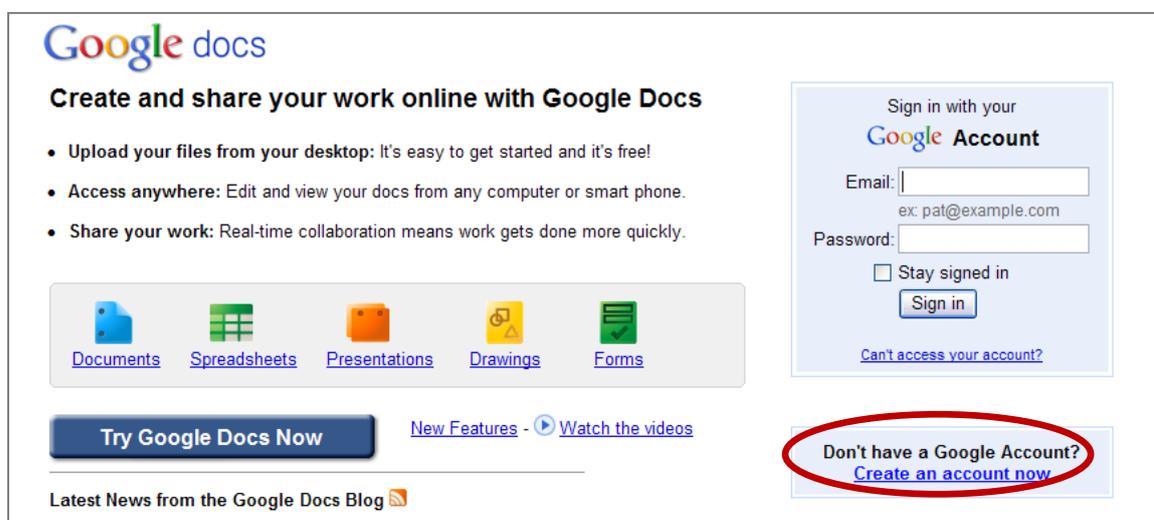
Google Apps is a set of web applications provided by Google. It allows the teacher and the students to create, contribute, and edit a document, work collaboratively on documents, presentations, spreadsheets, forms, and other files, and interact together in a virtual workspace. Each of these tools can be used in the classroom to accomplish a different set of objectives.

Creating a Google Account

In order to help us get started with the tools, you need to create a Google account. If you do not have an existing Gmail account or if you prefer to use your NUSNet account to register, it is completely fine.

To create a Google account:

1. Open your browser and type in this URL: <http://docs.google.com>. Please note that this is not the same as Gmail.



The screenshot shows the Google Docs homepage. On the left, there is a navigation menu with icons for Documents, Spreadsheets, Presentations, Drawings, and Forms. Below this is a large blue button that says "Try Google Docs Now". To the right of the button are links for "New Features" and "Watch the videos". At the bottom left, there is a link for "Latest News from the Google Docs Blog". On the right side of the page, there is a sign-in form titled "Sign in with your Google Account". The form has fields for "Email:" and "Password:", with an example email "ex: pat@example.com" shown. Below the password field is a checkbox for "Stay signed in" and a "Sign in" button. A link "Can't access your account?" is located below the sign-in button. At the bottom right, there is a red oval highlighting the text "Don't have a Google Account? Create an account now".

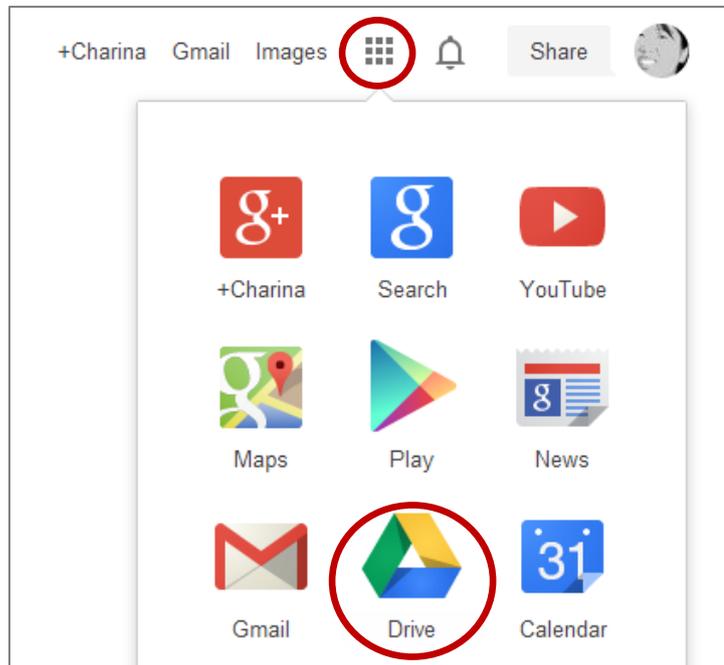
2. Enter required information and then click **I accept. Create my account.**

Google Drive

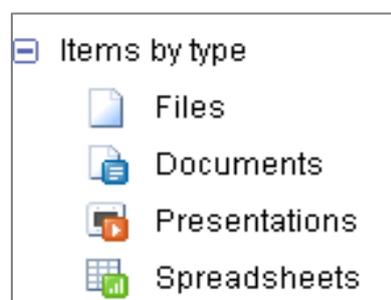
Google Drive is a free service from Google that allows you to store files online and access them anywhere using the cloud. Google Drive also gives you access to free web-based applications for creating documents, spreadsheets, presentations, and more without having to email that document back and forth.

Creating a Document

1. Log-in to your Google account.
2. Click on the **Apps** icon and then select **Google Drive**.



3. To create a new document, click **Create New**, and select the type of document you want to make.



3. To rename a document, click on the title "**Untitled document**" or the name you have provided when you first created it.
4. Alternatively, you can upload existing document from your desktop by clicking **Upload**.
5. By default, Google docs will convert the file you uploaded to make it editable.

Inserting Text

If you are familiar with word processing software such as Microsoft Word, you will find working with text in Google Documents to be a similar experience.

To insert text:

1. Move your mouse to the location where you want text to appear in the document.
2. Click the mouse. The insertion point appears.
3. Type the text that you want to appear.

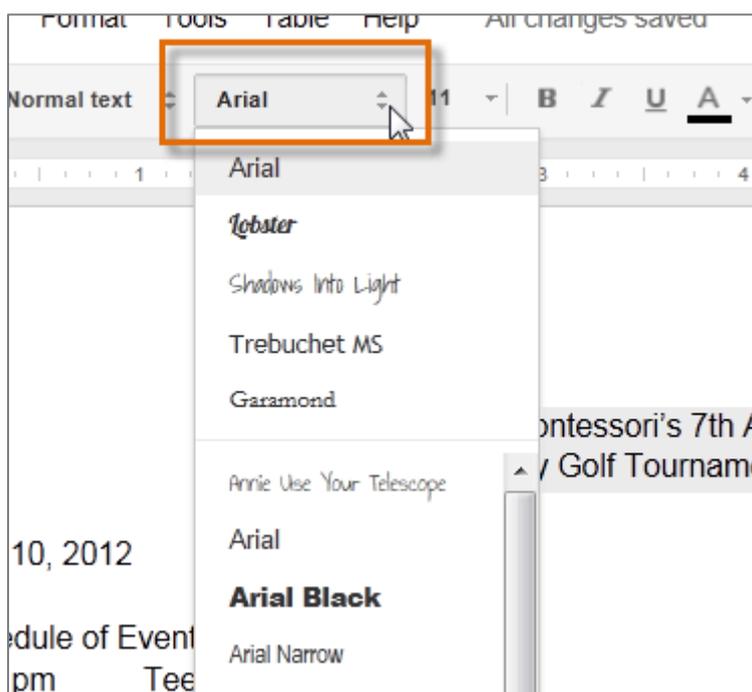
Editing and Formatting Text

Google Documents offer a variety of text formatting options you can use to modify the look and feel of your document. These options are located in the Toolbar Shortcut menu.



To change the font style:

1. Select the text you want to modify.
2. Click the **Font Style** box from the toolbar. A drop-down menu of font styles appears. The name of each font style has been formatted to look like the style it describes.



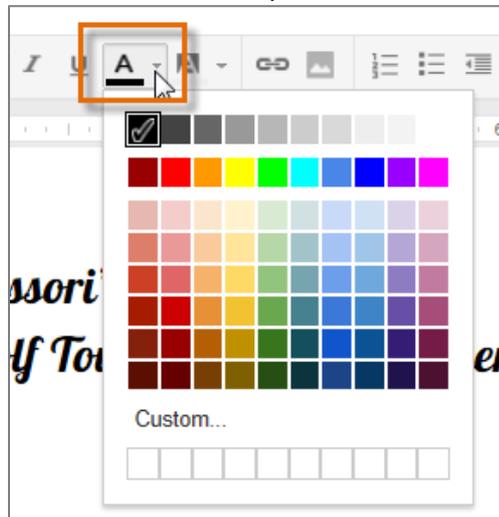
3. Select the **font style** you want to use.
4. The selected text will change to the new font style.

To change the font size:

1. Select the text you want to modify.
2. Select the font size you want to use.
3. The text will change to the new font size.

To change the text color:

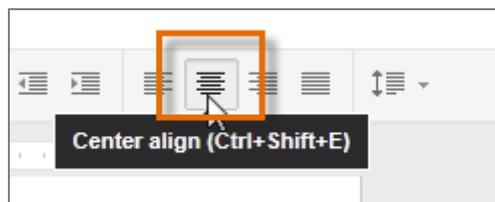
1. Select the text you want to modify.
2. Click the Text color box from the toolbar. A drop-down menu of text colors appears.



3. Select the box of the text color you want to use
4. The text will change to the new color.

To change the text alignment:

1. Select the text you want to align.
2. Click the desired **alignment button**.



Customizing the style of your document

The use of style is another way to format your document. You can apply a consistent formatting to your text across your document. You will see 6 different styles in the Formatting toolbar- heading 1-6 and normal text style.

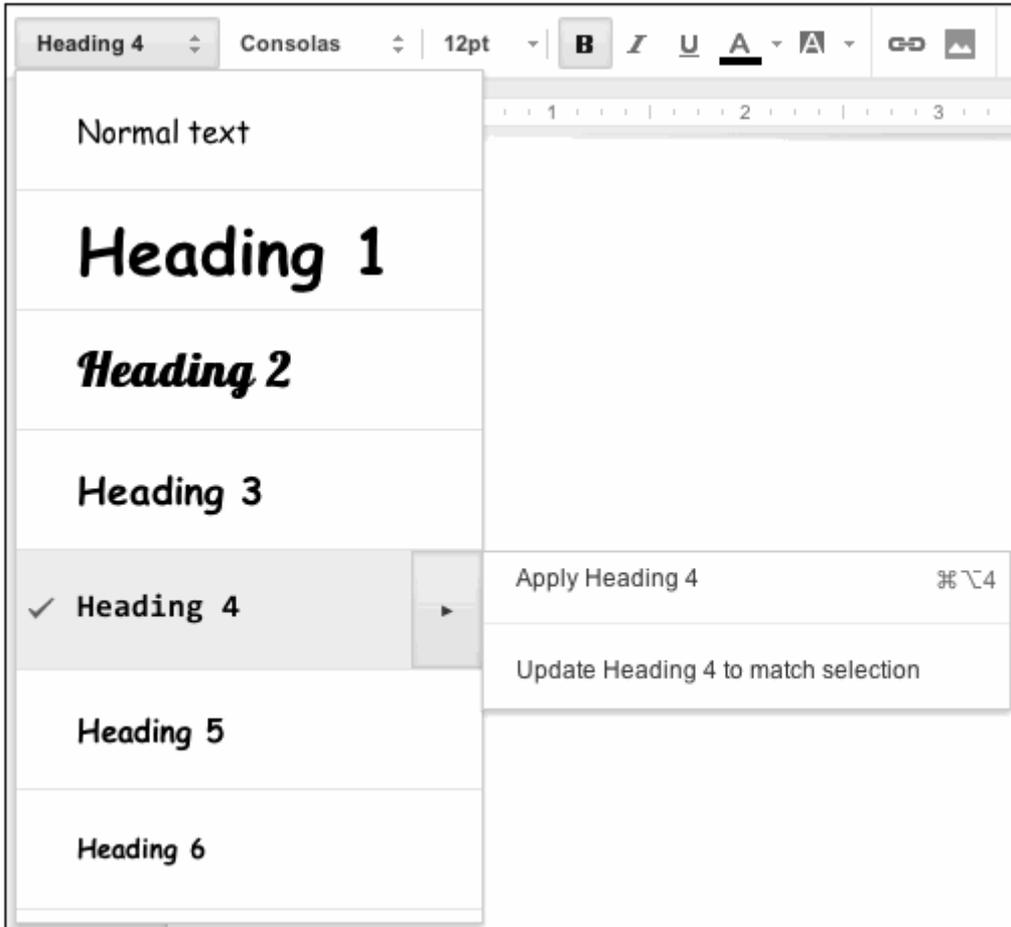
Headings designate the sections of your document. This will be useful especially when you need to generate a table of contents.

Applying a heading style to your document

1. Highlight the text you want to change into a heading.
2. Expand the styles drop-down menu from the toolbar.
3. Select a heading from the menu.

Customizing a heading style

1. Highlight a selection of text with the font size and style that you would like to use for normal text or a particular heading.
2. Go to the styles toolbar menu, and click the arrow next to **Normal text** or **Heading 1-6**.



3. Select **Update Heading X to match selection**.
4. All of the text in your document with the same text type, such as Heading 1 or Normal text, will be updated to match the font and font size of your initial selection.

Using Normal text

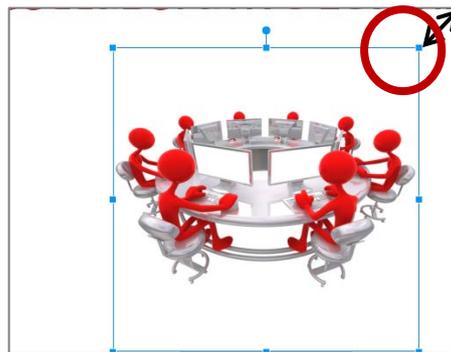
Normal text is the default text style of your document. If you update the style of normal text from the styles toolbar menu, the default text style of your document will change accordingly.

Inserting Images

Adding images to your document can make it more visually appealing. Google Documents uses Google Search to find and provide images for you to choose from, so it is likely you will find one that matches your needs. If you have a picture of your own that you want to use, you can upload an image.

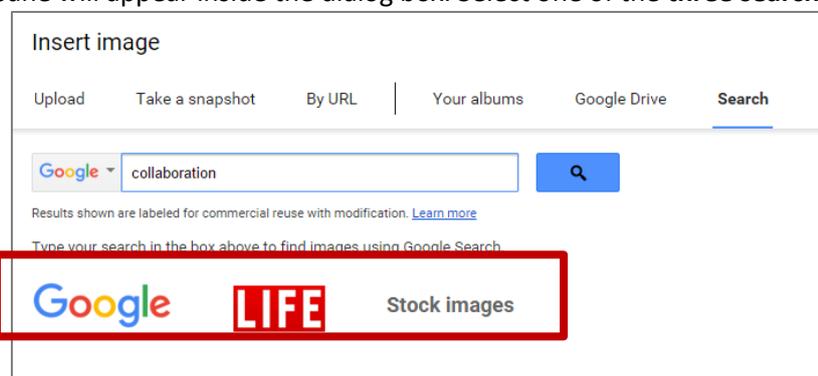
To insert an image:

1. Place the insertion point in the document where you want to insert the image.
2. Click the **Insert image** button.
3. Choose an image from your computer or from the web. Once your image is added, you can remove or resize it at any time.
 - To remove an image, select it, and press **Delete** key.
 - To resize an image, select it and then pull one selection handle. Use a corner handle to proportionally resize its dimension:



To search for an image:

1. Place the **insertion point** in the document where you want to insert the image.
2. Click the **Insert image** button.
3. The **Insert image** dialog box will appear. Click **Search**.
4. A search pane will appear inside the dialog box. Select one of the **three search options**.



5. Type the desired search term, and then click the **search** button.
6. Review the search results. Select the desired **image**, and then click **Select**.
7. The image will appear in the document.

To delete an image:

1. Select the image and press the **Backspace** or **Delete** key on your keyboard.

Adding a Hyperlink

A hyperlink is a link to a web address (or URL). If you want to include a web address in your Google document, you can format it as a hyperlink for someone to click. The hyperlink will then open the webpage in a new browser window.

Hyperlinks have two basic parts: the address (URL) of the webpage and the display text. For example, the address could be <http://www.nus.edu.sg> and the display text could be **NUS**. When you are creating a hyperlink in Google Documents, you will be able to choose both the address and the display text.

To add a link:

1. Select the text (or an image) where you want the link to be displayed.
2. Click the link icon in the formatting toolbar.



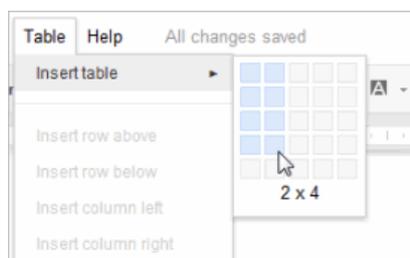
3. Type the URL and click **OK**. The text you selected will now be a hyperlink.
4. Click the link to view the URL.

Adding a Table

A table is a grid of cells arranged into rows and columns. Tables can be customized and are useful for various tasks such as presenting text information and numerical data.

To add a table:

1. Place the insertion point at the location where you want to insert a table.
2. Click the **Table** drop-down menu and hover the mouse over **Insert table**. A grid of squares appears.
3. Drag the mouse over the grid of squares to select the number of columns and rows in the table.



4. Click the mouse, and the table appears in the document. The insertion point will now be in the top left cell.

I		

To add a row:

1. Right-click in a row adjacent to the location where you want to add a row, and then select **Insert row above** or **Insert row below** from the menu that appears.

To add a column:

1. Right-click in a column adjacent to the location where you want the new column to appear, then select **Insert column left** or **Insert column right** from the menu that appears.

To delete a row or column:

1. Right-click the mouse in the row or column you want to delete, then select **Delete row** or **Delete column** from the menu that appears.

To delete a table:

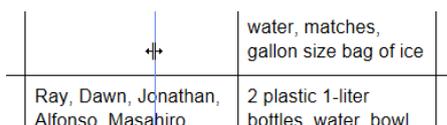
1. Right-click anywhere on the table and select **Delete table** from the menu that appears.

Editing Table Properties

You can make modifications to an existing table by adjusting the table properties like cell dimensions, alignment, border size, and color.

To modify cell dimensions:

1. Hover over the border line you want to modify. The cursor will change into a double arrow.



	water, matches, gallon size bag of ice
Ray, Dawn, Jonathan, Alfonso, Masahiro	2 plastic 1-liter bottles, water, bowl,

2. Release the mouse at the desired location. The cell dimensions will change.
3. You can also enter exact cell dimensions using the **Table Properties** dialog box. Right-click the cell you want to modify, then select **Table properties...** from the menu that appears.

To change the cell background color:

1. Select the **cell** or **cells** you want to modify.
2. Right click and select **Table properties...** from the menu that appears.
3. Click the **Cell background color** drop-down arrow, and then select the desired color.
4. Click **OK**.

To modify the border color:

1. Right click anywhere in the table. Select **Table properties...** from the menu that appears.
2. Click the **Table border color** drop-down arrow, and then select the desired color.
3. Click **OK**.

Generating Table of Contents

Once you have finished writing the content of your document, you can now generate a table of contents. A table of content lists all of your document's headings in order at the top of your document. When you click a heading name in the table, it will jump to that section of the document.

1. Place your cursor where you would like to insert the table of contents.
2. Go to the **Insert** menu, and select **Table of contents**.
3. If you need to move the table of contents, select it as you would select text and either move it with your cursor or you can cut and paste it to any part of your document.
4. You can continue to add headings to your document or change current headings. However, if you'd like a change to become part of the table of contents, you need to click first the table and then the **Refresh** button.

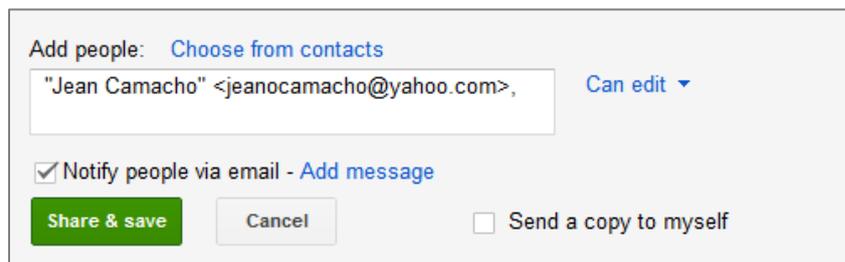
Sharing a Document

Whenever you share a file from your Google Drive, you can let others view and edit the same file. While you can share any file stored on your Google Drive, it is important to note that you can only use the collaboration features for files created within your Drive.

When you share a file with a limited group of people, your collaborators must sign in with a Google account to view or edit the file. However, when you share with a larger group or make the file public, your collaborators will not need a Google account to access the file.

To share a file with a limited group of people:

1. Locate the file and then click the **Share** button.
2. In the **People** box, type the email addresses of the people you would like to share the file with. You can also add a message that will be emailed to the people you share the file with.



Add people: [Choose from contacts](#)

"Jean Camacho" <jeanocamacho@yahoo.com>, [Can edit](#) ▼

Notify people via email - [Add message](#)

[Share & save](#) [Cancel](#) Send a copy to myself

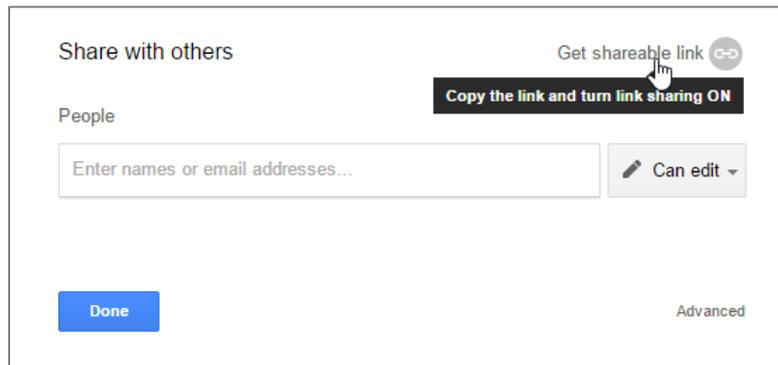
3. For more control over your files, you can click the drop-down arrow to decide whether people can **edit**, **comment** on, or simply **view** the file.
 - **Can edit:** Collaborators can add and edit content in your document, or add comments.
 - **Can comment:** Collaborators can add comments, but they cannot edit the content.
 - **Can view:** People can view your document, but they cannot edit it or add comments.
4. Click **Send**. Your file will be shared.

Sharing with a link

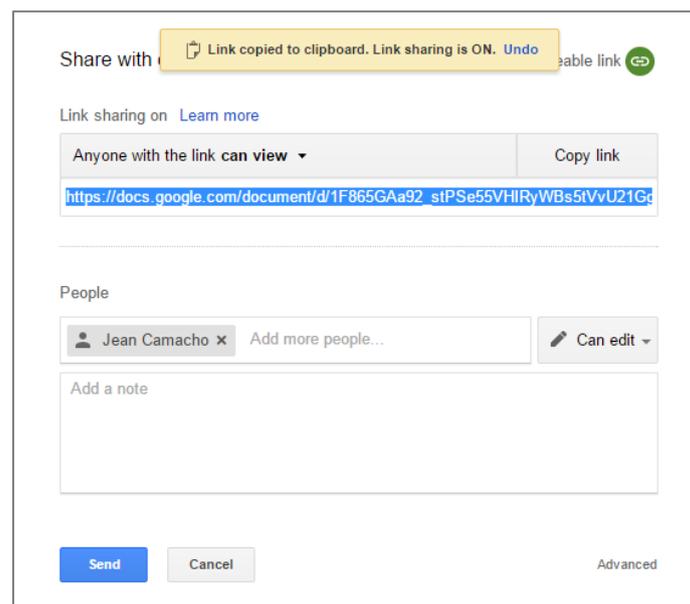
You can easily share a file with a larger group of people by providing a link to any file in your Google Drive. A link is basically a URL or web address for any file you want to share. This can be especially helpful for files that would be too large to send as an email attachment, like music or video files. You can also share a file by posting the link to a public webpage. Anyone who clicks the link will be redirected to the file.

To share a link:

1. Locate and select the **file** you want to share, and then click the **Share** button.
2. A dialog box will appear. Click **Get shareable link**.

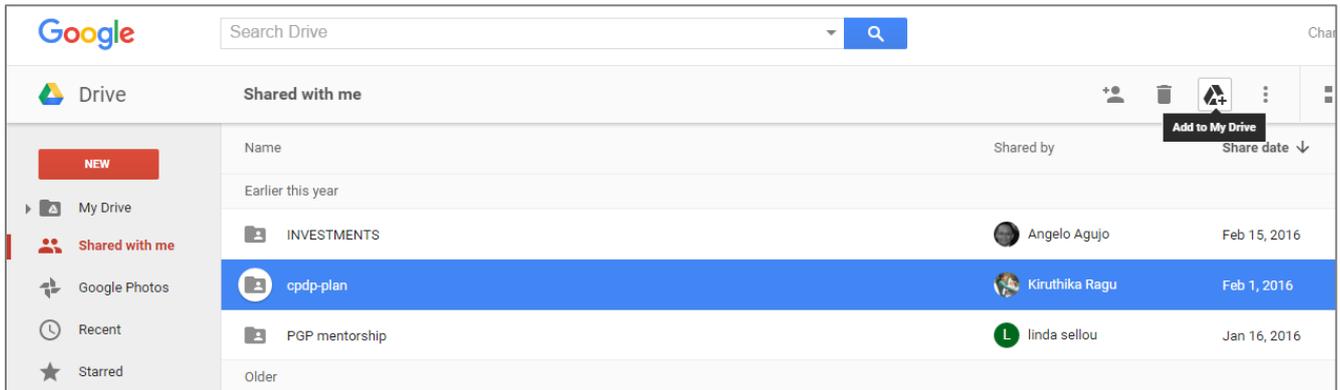


3. A link of the file will be **copied** to your web clipboard. You can then **paste** the link in an email message or on the Web to share the file. When you're finished, click **Done**.



Accessing the files shared with you

People can also choose to share files with you. These files will appear in your **Shared with Me folder**. However, if you would prefer to access a file from your Google Drive without switching to this view, you can move it. To do this, navigate to your **Shared with me folder**, hover the mouse over the desired file, then select **Add to My Drive**.

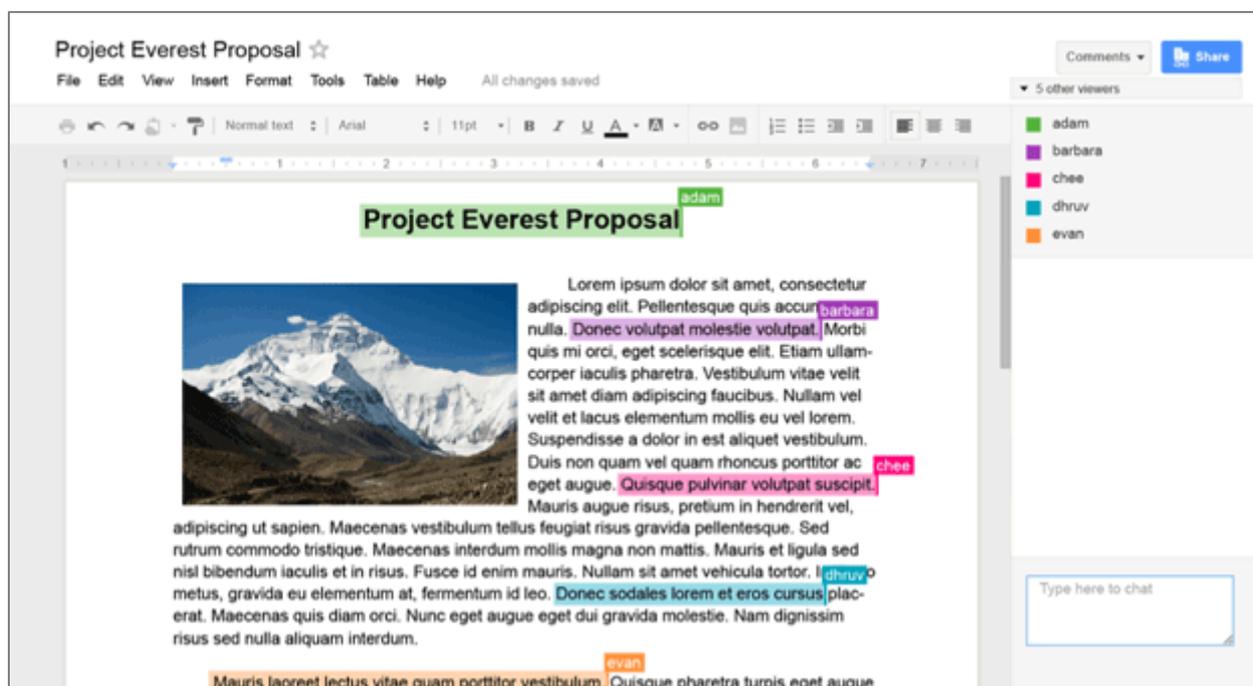


Collaborating on a Document

After you share a document, you can work on it with your peers in real time, just as you would if you were sitting together in a class. Depending on the permissions you grant, other people can update the document itself or, if it is a text document, use comments beside the document to discuss or brainstorm about the project.

Editing a document simultaneous with peers

Anyone with edit permission can make direct changes to a document. If your peers can make changes at the same time as you, you can see the changes happen as they are made. Each person's changes are marked by a cursor with a different color.

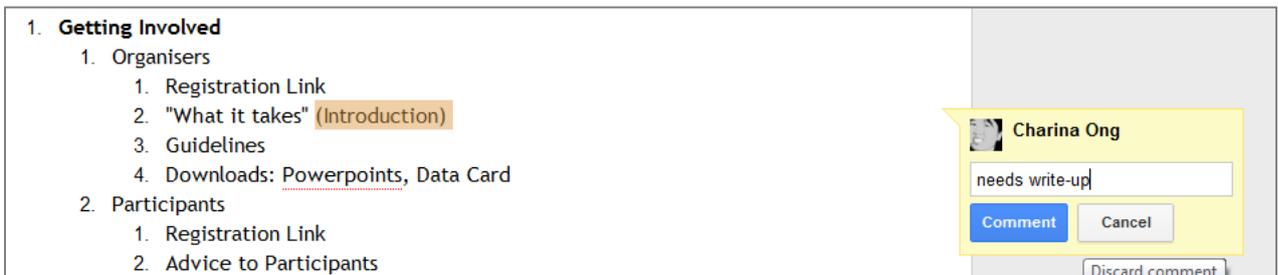


Collaborating with peers on a document using comments

You can use the comment feature to explain or clarify important points you found in a document submitted by your students. The comments appear at the right of the document.

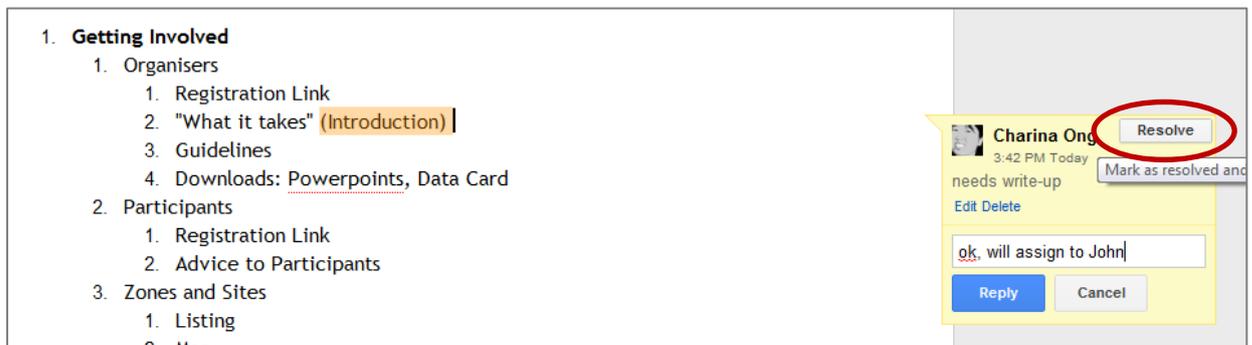
To comment on the document:

1. Select a section of text that you want to comment on.
2. Click **Insert > Comment**.
1. Type your feedback and click **Comment**. Your comments will appear on the right side of your document. You can click a comment to verify which section of text it refers to, or to contribute to the discussion. You can also edit or delete your own comments.



To resolve a comment and hide it:

1. When you are done with a discussion, select the comment and click **Resolve**.



Tip: The comment does not go away completely unless the person who initiated the discussion deletes it. You can see resolved comments by clicking **Comments > Show comment stream**. You can then re-open a comment if you think it needs more discussion.

Google Forms

Google Forms is a useful tool to help you make a survey, give students a quiz, or collect other information in an easy, streamlined way. A Google Form is automatically connected to a spreadsheet with the same title. When you send or share a form, recipients' responses will automatically be collected in that spreadsheet.

Creating and sending a Google form

1. Go to <http://docs.google.com/forms>.
2. In the bottom right, click **Plus** Expand icon.
3. A new form will automatically open.
4. You can add any questions you want in the form template.

Adding Contents to a Form

You can add different types of questions to your forms. This includes checkboxes, grid, drop-down lists with options, multiple choices, paragraph text which allow for long answers, and scale to ask your invitees to grade something in a scale from 1-5, for instance.

To add a question:

1. Click **Add** .
2. Next to the question title, choose one of the following question types:
 - Short answer 
 - Paragraph 
 - Multiple choice 
 - Checkbox 
 - Dropdown : People can choose an answer from a menu.
 - Linear scale : People can rank something along a scale of numbers.
 - Multiple choice grid : People can choose points on a grid.
 - Date 
 - Time 
3. Type the possible responses to your question. If you want to prevent respondents from leaving a question blank, toggle the **Required** button from Off to **On**.

Sections can make your form easier to read and complete.

To add a section:

1. Click **New Section** .
2. Label the new section.

You can also add an image or YouTube video to an existing form.

To add an image or a video:

1. To add an image, click **Add Image** . To add a video, click **add Video** .
2. Choose your image or video and click **Select**.

Note: Images and videos in forms can't be attached to form questions.

Editing a Form

1. To edit a question, header, or description in your form, click the text you want to change and make your edits.

To duplicate a question:

1. Click a question and then click **Duplicate** .

To duplicate a section:

1. Click a section header.
2. Click **More** .
3. Click **Duplicate** section.

To delete a question:

1. Click a question.
2. Click **Remove** .

To delete a section:

1. Click a section header.
2. Click More .
3. Click **Delete** section.

Applying Theme to a form

1. Open the form
2. Click the **Color palette** icon .
3. Choose a color for your form. Or, to add a theme, you can click the **Image** icon  and add an existing theme to your form from Google+.
4. Your new theme will automatically be applied and you can continue editing your form.

Creating a custom theme

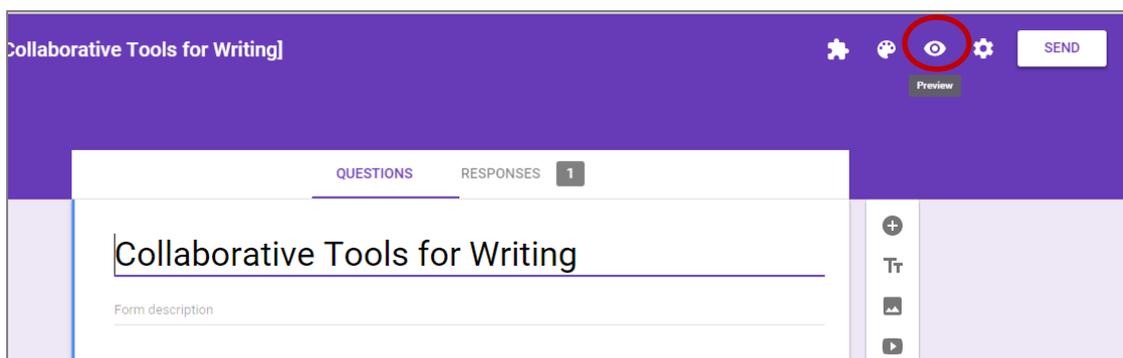
If you want even more control over how your form looks, you can create your own custom theme.

To create a custom theme:

1. Open the form.
2. In the toolbar, click **Change theme**.
3. Find one of the existing templates in the panel on the right to use as a starting point and click **Customize** under the name of that template.
4. Select a section of the form in the panel on the right to begin editing that section. Some of the options you can customize include:
 - Adding custom images to the header and the page background
 - Choosing font, font size, font color, and paragraph alignment for the form text
 - Choosing a color for the form and page backgrounds
5. Your changes will automatically be applied and you can continue editing your form by clicking the **Edit questions** button in the toolbar.

Previewing the Form

1. To preview the form, click the eye icon. This will display how the form would look like when the respondents open it.



Sending Out the Form

When you have completed your form, you can now send it to respondents.

To email a form:

1. Open the form.
2. At the top right side of the form, click the **Send** button.
3. Add the email addresses you want to send the form to, along with the email subject and message.
4. Click **Send**.

To get link to a form:

1. Open the form.
2. At the top right side of the form, click the **Send** button.
3. At the top of the window, click the Link icon .
4. To copy the link that appears, click **Copy** and enter **Ctrl + C** on your keyboard.

Tip:

- You can also use tinyurl to shorten the URL before sending it participants. To do this, just simply go to <http://tinyurl.com>, enter the full address, and then specify a shortcut name in the alias box.

To share a form on social media:

1. Open the file.
2. At the top right side of the form, click the **Send** button.
3. Choose any of the Google+, Twitter, or Facebook icons.
4. Follow the instructions to share the form.

To embed a form on a website or blog

1. Open the form.
2. At the top right side of the form, click the **Send** button.
3. At the top of the window, click the Embed icon .
4. To copy the HTML that appears, click **Copy**.
5. Paste the HTML into your website or blog.

Share your form with collaborators

You can work together on a form by sharing the form with your colleagues.

1. Open a form.
2. Click the **More** icon at the top right side of the screen .
3. Choose **Add collaborators**.
4. In the text box under **Invite people**, add the names or email addresses of your colleagues and choose the **level of access** you want them to have.
5. Click **Done**.

Note: When you share a Google form with a collaborator, you give that person full editing access to the form. They will have the ability to make any changes they want to the form, including a change to where responses are collected.

Collecting and Viewing Form Responses

By default, the form responses are collected in a spreadsheet. You can access form responses at any time by opening the spreadsheet from your Documents List.

To view the summary of responses:

1. At the top of the form, click **Responses**.
2. Click **Summary**.

To view individual responses:

1. At the top of the form, click **Responses**.
2. Click **Individual**.
3. To move between responses, click **Previous respondent** or **Next respondent**.

To view responses in a spreadsheet:

1. At the top of the form, click **Responses**.
2. To view the responses in a spreadsheet, click **Spreadsheet** . The spreadsheet will open.

To download responses as a CSV file:

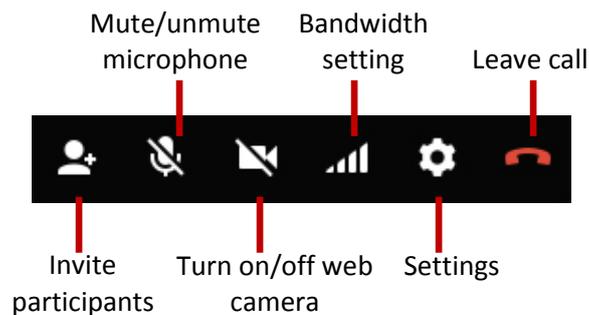
1. At the top of the form, click **Responses**.
2. Click **More**  > **Download responses (.csv)**.

Google Hangouts

Google Hangout is an instant messaging and video chat platform. Everyone who has a Gmail or Google+ account will be able to use this feature. You can have a group chat with your students up to 100 users. This feature is good for exchanging ideas on projects or assignments. The video call feature allows 10 people to participate. You can think about it as student consultation on brainstorming on a project assignment. All discussions can be archived for future use.

Setting Video Calls

You can access your video call settings at any time by clicking the gear icon at the top right of the video call window.

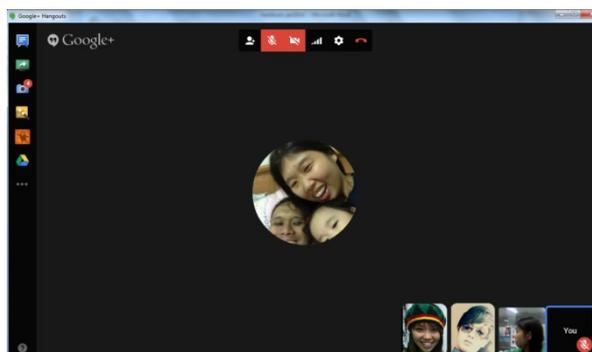


The settings page helps confirm that your computer is set up and ready to use.

- **Bandwidth setting:** If you're experiencing issues with the video or sound quality of your video call, please try adjusting your bandwidth setting.
- **Hangouts in HD:** If you have the right equipment, you can send and receive 720p HD video through Hangouts. Learn more about HD Hangouts.

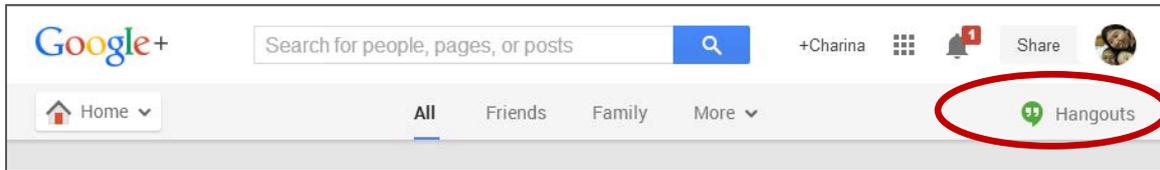
Joining a Hangout

1. Go to <http://plus.google.com>.
2. Sign in using your Gmail username and password.
3. On the top right corner of the Google+ home screen you will see the account name. Next to the account name, a red box will appear. Click on the red box.
4. You will see a message that says **"(Someone) has invited you to a Hangout."**
5. Click **Join Hangout**.
6. The Hangout will automatically open. You will see your own image, and the images of the other participants in the Hangout.

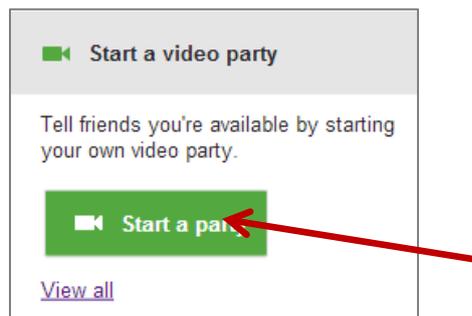


Starting a Google Hangout

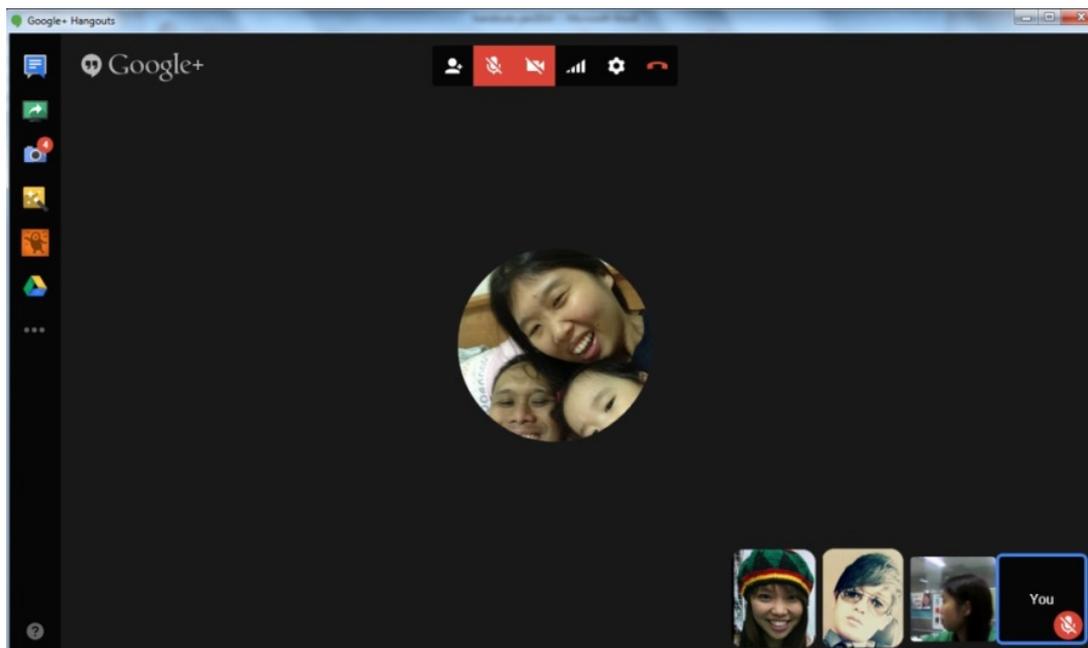
1. Go to <http://plus.google.com>.
2. Sign in using your Gmail username and password
3. Click the **Hangouts** button on the upper right portion of your screen.



4. Click on **Start a video party** and then choose **Start a party**.

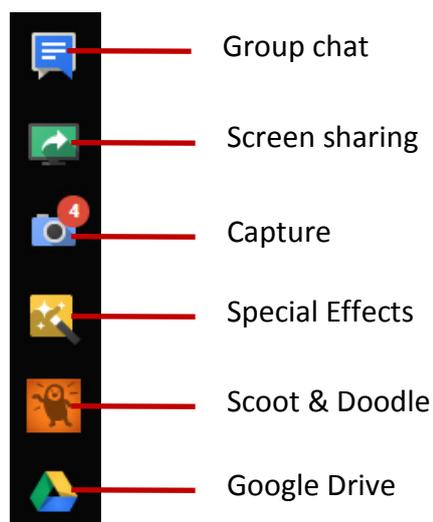


5. Enter a topic and start inviting the people to join you and then click **Share**.
6. The people you invited will receive an email invitation asking them to join the session.
7. Pictures of people who joined will start to display on the lower right side of the screen. You can click on each thumbnail to check on them.



Exploring Google Hangout Tools

Once you have invited people to join you in the Hangout session, you can explore different tools to start the discussion.



Sharing your screen with others in a video call

With the Screenshare feature, you can give other people the ability to see what is on your computer screen. For example, if there's a picture open on your computer screen, other video call participants can see it without having to download anything.

To share your screen:

1. Hover over the left side of the video call window, and a bar with various app icons appear.
2. Click **Screenshare** on the left side of your screen.
3. In the window that pops up, choose your desktop or choose the window that you want to present.
4. Click **Share Selected Window**.

Collaborating on a Document

1. Hover over the left side of the video call window, and a bar with various app icons appear.
2. Click the **Google Drive** button on the left side of your screen.
3. If you upload a Google Doc that has not been shared with everyone in the video call, you will be prompted to share it with the other participants so that they can see and edit it.
4. To access notes after a video call, simply sign in to your Google Account and go to **<http://drive.google.com>**. From there you can browse for the doc or search for it.
5. Search for your Hangout Notes in Google Docs.
6. Your notes will be named Hangouts Notes: [date of Hangout] [time notes doc was created].

Movenote

Movenote is a screencasting tool which allows you to create powerful webinars for students. You can straight away record your lecture using the slides, pictures, or PDF from your local machine or Google Drive. Similarly, students can record a presentation or an assignment explaining explicitly the details. Once your recording is complete, the videos produced can be viewed on the web, or using any mobile device such as smartphones or tablets. You also have the option to share the link to social media, through email, or embed it on your class blog or website.

Recording Lecture Online using Movenote

To record a lecture video:

1. Open your browser and type in the URL: <https://www.movenote.com>.
2. Log-in using your Gmail account.
3. **Click Add slides** button and locate the file. The file can be from your local machine or it could use the presentation file you have stored in your Google Drive.



4. Once the slides are loaded, make sure the system can detect your web camera and microphone.
5. To start narrating the slides, click the **Record** button.
6. You can pause anytime and resume when you want to continue.
7. When you finish narrating the slides, click **Save and Preview**.
8. Click the **Playback** button to review the recording you have done.
9. Click the **Settings** icon to edit the slides or click the **Gmail** icon to share the link to your students.

