

Free and Open Source Software (FOSS) for Online Teaching

Jonathan R. Bacolod

Sauyo High School

LAC Session, October 31, 2020

Overview

- 1 What is FOSS?
- 2 Advantages of FOSS
- 3 FOSS for Office Stuff
- 4 FOSS for Multimedia
- 5 FOSS for Online Classes
- 6 FOSS for Test Correction

Did You Know?

In 2018, the Philippine Government spent P6.3B on computer software alone.

Republic of the Philippines
National Government
Detailed Statement of Financial Position
As at December 31, 2018
(in thousand pesos)

	2018	2017 (Restated)
<i>Accumulated Impairment Losses-Patents/Copyrights</i>		
<i>Carrying Amount</i>	92,969.44	92,488.68
Computer Software	6,268,229.81	4,734,475.35
<i>Accumulated Amortization-Computer Software</i>	(2,189,646.29)	(1,555,828.30)
<i>Accumulated Impairment Losses-Computer Software</i>	(238,228.23)	(15,877.47)
<i>Carrying Amount</i>	3,840,355.29	3,162,769.58
Websites	2,363.48	2,101.60
<i>Accumulated Amortization-Websites</i>	(670.11)	(494.70)
<i>Accumulated Impairment Losses-Websites</i>	-	-
<i>Carrying Amount</i>	1,693.37	1,606.90
Other Intangible Assets	1,091,476.91	1,064,594.55
<i>Accumulated Amortization-Other Intangible Assets</i>	(86,456.67)	(77,765.67)
<i>Accumulated Impairment Losses-Other Intangible Assets</i>	-	-



Republic of the Philippines

COMMISSION ON AUDIT

Komisyon ng Pagsusuri



Home About Us ▾ Reports ▾ Issuances ▾ Human Resources ▾ Trainings ▾ News ▾ Contact Us ▾ Related Links ▾ ABC ▾

Home > National Government Agencies > 2018

ANNUAL FINANCIAL REPORTS



National Government Agencies

Local Government Units

Government-Owned and/or
Controlled Corporations

Annual Reports on Allotments,
Obligations and Disbursements

2018

Annual Financial Report for the National Government (Volume I) [View PDF](#)

Annual Financial Report for the National Government (Volume II) [View PDF](#)

Display # ▼



Did You Know?

In 2018, the Department of Education spent P692.5M on computer software alone.

	Department of Agrarian Reform	Department of Agriculture	Department of Budget and Management	Department of Education
<i>Accumulated Impairment Losses-Livestock Held for Consumption/Sale/Distribution</i>				
<i>Carrying Amount</i>	-	1,031,313.74	-	123.06
Trees, Plants and Crops Held for Consumption/Sale/Distribution	18,546.86	2,557.34	-	-
<i>Accumulated Impairment Losses-Trees, Plants and Crops Held for Consumption/Sale/Distribution</i>				
<i>Carrying Amount</i>	18,546.86	2,557.34	-	-
Agricultural Produce Held for Consumption/Sale/Distribution	-	-	-	-
<i>Accumulated Impairment Losses-Agricultural Produce Held for Consumption/Sale/Distribution</i>				
<i>Carrying Amount</i>	-	-	-	-
Aquaculture	-	-	-	52.50
<i>Accumulated Impairment Losses-Aquaculture</i>				
<i>Carrying Amount</i>	-	-	-	52.50
Other Consumable Biological Assets	-	-	-	-
<i>Accumulated Impairment Losses-Other Consumable Biological Assets</i>				
<i>Carrying Amount</i>	-	-	-	-
Intangible Assets	475.25	141,678.30	113,066.13	200,638.44
Intangible Assets	475.25	141,678.30	13,066.13	200,638.44
Patents/Copyrights	-	-	-	14,592.46
<i>Accumulated Amortization-Patents/Copyrights</i>				
<i>Carrying Amount</i>	-	-	-	-
Computer Software	1,191.98	148,657.36	93,682.49	692,473.51

Did You Know?

This year, other departments spent millions on software licenses and office productivity software.

PhilHealth's proposed budget for IT equipment

ITEM	PHILHEALTH PROPOSAL	APPROVED BY DICT
ADOBÉ MASTER COLLECTION SOFTWARE	P21 MILLION	P168,000
APPLICATION SERVERS AND LICENSES	P40 MILLION	P25 MILLION
STRUCTURED CABLING	P5 MILLION	P500,000
IDENTITY MANAGEMENT SOFTWARE	P42 MILLION	P20 MILLION
OFFICE PRODUCTIVITY SOFTWARE	P21 MILLION	P5 MILLION
APPLICATION SERVER, VIRTUALIZATION LICENSES, SUPPORT MAINTENANCE	P25 MILLION	P14.8 MILLION



WHY?

What is FOSS?

Freeware \neq Free and Open Source Software

What is FOSS?

Free and open-source software (FOSS) is software that can be classified as both free software and open-source software.

What is FOSS?

Anyone is freely licensed to use, copy, study, and change the software in any way, and the source code is openly shared so that people are encouraged to voluntarily improve the design of the software.
(from Wikipedia)

What is Proprietary Software?

Proprietary Software: the software is under restrictive copyright licensing and the source code is usually hidden from the users.
(from Wikipedia)

What are the Four Essential Freedoms?

Freedom to:

- Run (freedom 0)

What are the Four Essential Freedoms?

Freedom to:

- Run (freedom 0)
- Study (freedom 1)

What are the Four Essential Freedoms?

Freedom to:

- Run (freedom 0)
- Study (freedom 1)
- Redistribute copies (freedom 2)

What are the Four Essential Freedoms?

Freedom to:

- Run (freedom 0)
- Study (freedom 1)
- Redistribute copies (freedom 2)
- Modify/improvise (freedom 3)

Did You Know?

Sixty-four percent of companies in the Philippines use unlicensed software.



MONEY

Filtered By: Money

Microsoft's Software Alliance says 64% of companies in Philippines use unlicensed software

Published August 26, 2020 7:32pm

By TED CORDERO, GMA News

 Listen to this article nowPowered by  Trinity Audio

0

Microsoft-backed Business Software Alliance (BSA) said Wednesday that the majority of companies in the Philippines are using unlicensed software, making them vulnerable to cyberthreats and attacks.

In a statement, BSA said 64% of companies in the Philippines are estimated to be using unlicensed software.

Citing data from its member firms such as IBM and McAfee, BSA noted that cybersecurity threats are exacerbated by the widespread use of unlicensed software in Southeast Asia, which is often packaged

advertisement

• AT A GLANCE •

NEWS

'ABUSE OF POWER'

Lawyer to Duterte: Jennifer Laude was unfairly treated, not Pemberton

AFTER DUTERTE PARDON

Pemberton release eyed within the week, lawyer says

'WITH EXEMPTIONS'

Gov't eyeing to enforce ban on home quarantine — Año

MONEY

Gasoline, diesel, kerosene prices to be



GMANETWORK.COM USES COOKIES TO ENSURE YOU GET THE BEST EXPERIENCE WHILE BROWSING THE SITE.

By continued use, you agree to our privacy policy and accept our use of such cookies. For further information, click FIND OUT MORE.
Waiting for www.google-analytics.com...

I AGREE

FIND OUT MORE



Advantages of FOSS

Advantages of FOSS

- The availability of the source code and the right to modify

Advantages of FOSS

- The availability of the source code and the right to modify
- The right to use the software in any way

Advantages of FOSS

- The availability of the source code and the right to modify
- The right to use the software in any way
- Core software is free

Advantages of FOSS

- The availability of the source code and the right to modify
- The right to use the software in any way
- Core software is free
- Evolving software

Advantages of FOSS

- The availability of the source code and the right to modify
- The right to use the software in any way
- Core software is free
- Evolving software
- Encourages hands on

Advantages of FOSS

- Not tied to a single vendor

Advantages of FOSS

- Not tied to a single vendor
- Big community to support

Advantages of FOSS

- Not tied to a single vendor
- Big community to support
- Better security

Advantages of FOSS

- Not tied to a single vendor
- Big community to support
- Better security
- Reliable

Advantages of FOSS

- Not tied to a single vendor
- Big community to support
- Better security
- Reliable
- Stable



Why Schools Should Exclusively Use Free Software

by [Richard Stallman](#)

Educational activities, including schools of all levels from kindergarten to university, have a moral duty to [teach only free software](#).

All computer users ought to [insist on free software](#): it gives users the freedom to control their own computers—with proprietary software, the program does what its owner or developer wants it to do, not what the user wants it to do. Free software also gives users the freedom to cooperate with each other, to lead an upright life. These reasons apply to schools as they do to everyone. However, the purpose of this article is to present the additional reasons that apply



Why Schools SHOULD use FOSS

- Savings

Why Schools SHOULD use FOSS

- Savings
- Social mission to teach students to be citizens of a strong, capable, independent, cooperating and free society

Why Schools SHOULD use FOSS

- Permits students to learn how software works

Why Schools SHOULD use FOSS

- Permits students to learn how software works
- The most fundamental task of schools is to teach good citizenship, including the habit of helping others.

FOSS for Teachers

FOSS for Office Stuff

Did You Know?

Windows 10 themes can be used to
steal your passwords.

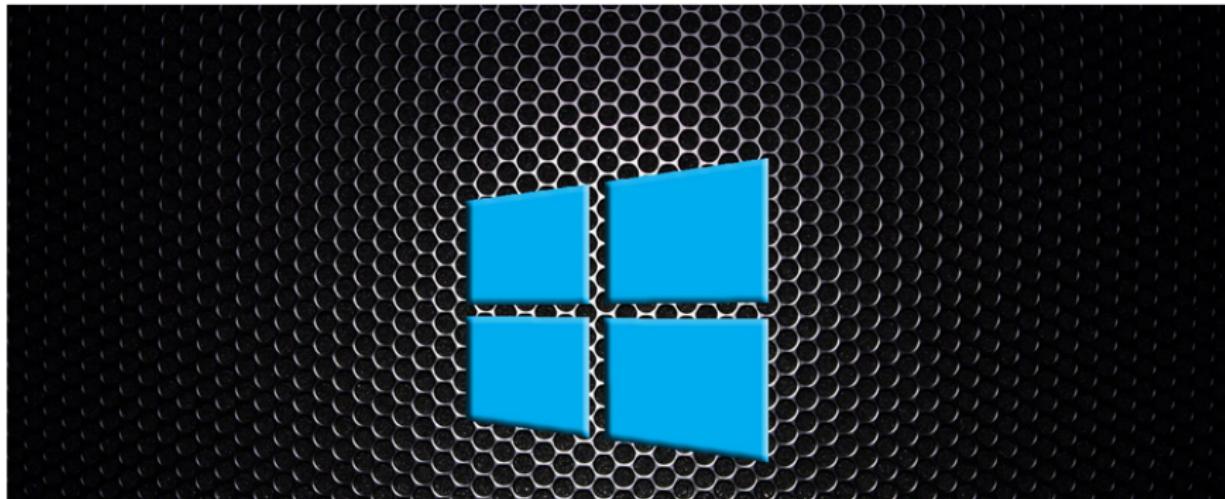
Windows 10 themes can be abused to steal Windows passwords

By [Lawrence Abrams](#)

 September 7, 2020

 12:38 PM

 0



Did You Know?

Eighty-three percent of all malware attacks are directed towards Windows computers.

Windows Computers Account for 83% of All Malware Attacks in Q1 2020

BY JASON COHEN AUG. 28, 2020, 5 P.M.

AV Test shows that Windows computers are the most vulnerable to malware attacks and are targeted more than any other operating system.



Distribution of malware



om match.adsrvr.org...

Malware is everywhere, but computers that run Windows—the world's most popular operating system—are especially prone to attacks. According to **AV Test's 2019/2020 Security Report**, 114 million new pieces of

FOSS Operating System



replaces



Linux Distributions



Advantages of Linux OS

- Secure

Advantages of Linux OS

- Secure
- Can revive older computers

Advantages of Linux OS

- Secure
- Can revive older computers
- Software Updates

Advantages of Linux OS

- Secure
- Can revive older computers
- Software Updates
- Customization

Advantages of Linux OS

- Secure
- Can revive older computers
- Software Updates
- Customization
- Free to Use

Did You Know?

All of the top 500 supercomputers in the world use Linux.

You are here: [Home](#) / [News](#) / Linux Runs on All of the Top 500 Supercomputers, Again!

Linux Runs on All of the Top 500 Supercomputers, Again!

Last updated January 1, 2020 By [Abhishek Prakash](#) — [18 Comments](#)

Linux might be struggling for a decent desktop market share but it is definitely ruling the world of supercomputers. Linux is the supercomputer operating system by choice.

As per the [latest report from Top 500](#), Linux now runs on all of the fastest 500 supercomputers in the world. The previous number was 498 as remaining two supercomputers ran Unix.

[Top500](#) is an independent project that was launched in 1993 to benchmark supercomputers. It publishes the details about the top 500 fastest supercomputers known to them, twice a

Did You Know?

The University of the Philippines-Diliman uses Linux as the operating system in their computers.

The advantages of using Linux | Rizal Raoul Reyes

Rizal Raoul Reyes

3-4 minutes

AS a developing country, the Philippines is always challenged to provide concerned stakeholders all their information and communications technology (ICT) needs to boost the digital capability of the country.

Radenta Technologies Inc., a Filipino-owned computing technology company, recently pointed out that using the Linux operating system is one major way to meet the challenges of the dearth in computing software. “One difference, however, is that Linux is an open source software that is free and available for the public to view, edit



Did You Know?

Microsoft 365 will become the official medium for communications by the entire Judicial Branch of the Philippine Government.

Supreme Court of the Philippines rolls out Microsoft 365, unveils virtual courtrooms

Microsoft 365 becomes default communications platform across entire Judicial Branch



James Henderson (Channel Asia)

17 May, 2020 10:36



FOLLOW US



Navigation icons: back, forward, search, etc.

Did You Know?

Office 365 is a major target for phishing campaigns to steal user passwords.

BEC Phishing Campaigns Bypass MFA, Target Office 365 Executive Accounts

HealthITSecurity

8-10 minutes

August 10, 2020 - Entities should be on the alert for an increase in two business email compromise campaigns. One report found an increase in BEC phishing campaigns targeting the Microsoft Office 365 accounts of executives, while the other reported a spike in phishing campaigns bypassing multi-factor authentication and conditional access.



FOSS Office Suite

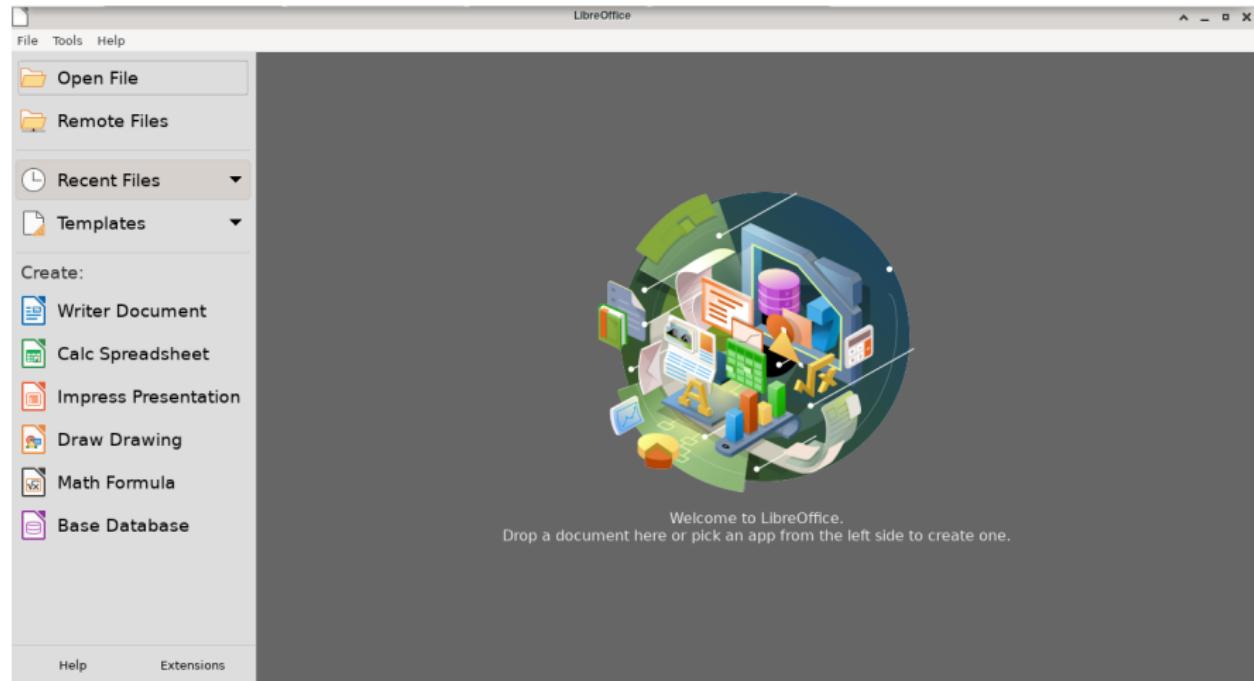


LibreOffice® replaces



Office

LibreOffice



Advantages of LibreOffice

- Free as in free speech

Advantages of LibreOffice

- Free as in free speech
- Free as in free beer

Advantages of LibreOffice

- Free as in free speech
- Free as in free beer
- Cross-platform

Advantages of LibreOffice

- Free as in free speech
- Free as in free beer
- Cross-platform
- Uses open standards

Advantages of LibreOffice

- Free as in free speech
- Free as in free beer
- Cross-platform
- Uses open standards
- Future-proof

Did You Know?

Excel files were used by a malware gang to phish emails.

Malware gang uses .NET library to generate Excel docs that bypass security checks | ZDNet

Catalin Cimpanu

4-5 minutes



FOSS Spreadsheet Program



replaces

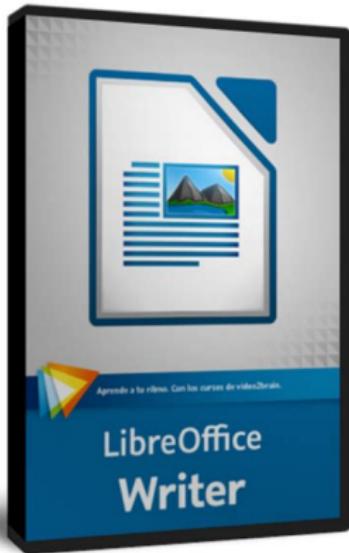


Excel

LibreOffice Calc

The screenshot shows a blank LibreOffice Calc spreadsheet titled "Untitled 1 - LibreOffice Calc". The interface includes a menu bar with File, Edit, View, Insert, Format, Styles, Sheet, Data, Tools, Window, and Help. Below the menu is a toolbar with various icons for file operations, text styling, and data manipulation. The main area is a grid starting at A1, with columns labeled A through O and rows labeled 1 through 27. The status bar at the bottom displays "Sheet 1 of 1", "Default Page Style", "English (USA)", "Average: ; Sum: 0", and zoom controls at 100%.

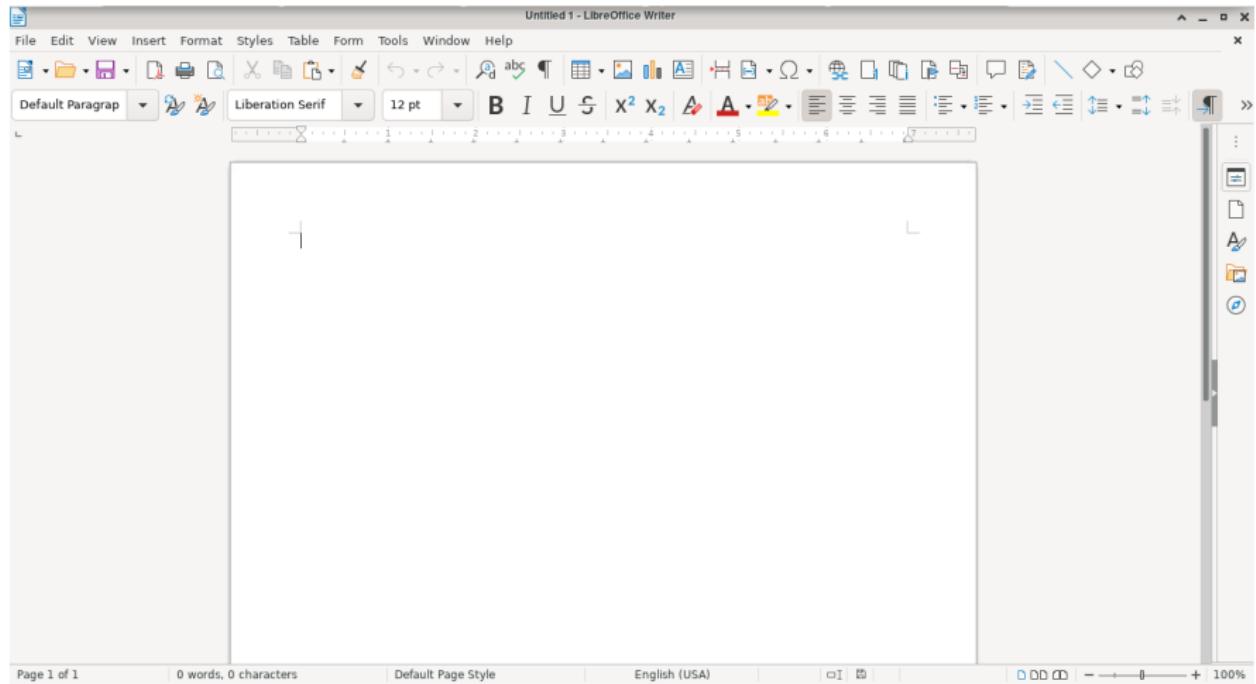
FOSS Word Processor



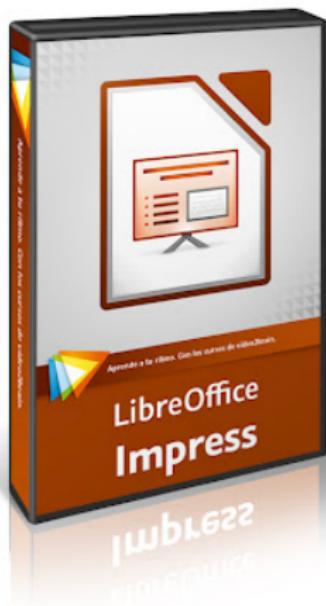
replaces



LibreOffice Writer



FOSS Presentation Software



replaces



LibreOffice Impress

The screenshot shows the LibreOffice Impress application window. The main area displays a single slide with the following text:

Click to add Title

Click to add Text

The left sidebar shows a slide thumbnail labeled '1'. The right sidebar contains the 'Properties' panel, which includes settings for Format (Screen 16:9), Orientation (Landscape), Background (None), Master Slide (Default), and checkboxes for Master Background and Master Objects. Below the properties are layout options, showing various slide templates. The bottom navigation bar includes icons for back, forward, search, and other slide controls.

Did You Know?

Google is plagued by data and privacy issues.

Google, plagued by data and privacy issues, still rakes it in

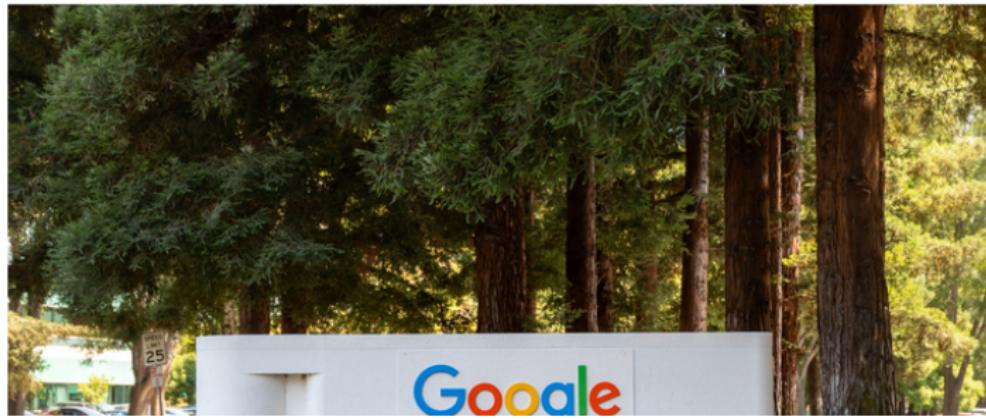
Despite scandals, like its spat with Apple or its Dragonfly search project, business is good.



Richard Nieva Feb. 4, 2019 3:34 p.m. PT



3



FOSS Online Spreadsheet

EtherCalc

replaces



Google
Sheets

EtherCalc Website

The screenshot shows the EtherCalc website running in Mozilla Firefox. The title bar reads "EtherCalc - Mozilla Firefox". The main content area features the EtherCalc logo and a brief description: "EtherCalc is a web spreadsheet. Your data is saved on the web, and people can edit the same document at the same time. Everybody's changes are instantly reflected on all screens. Work together on inventories, survey forms, list management, brainstorming sessions and more!" Below this is a blue button labeled "Create Spreadsheet" with the sub-instruction "No sign-up, start writing instantly". To the right, there is a preview of a spreadsheet titled "Next Steps" with two rows of data and a tip at the bottom. A file upload section allows users to drop .csv, .ods, or .xlsx files for import. At the bottom, there is a navigation bar with icons for back, forward, search, and other browser functions.

EtherCalc
EtherCalc is a web spreadsheet.

Your data is saved on the web, and people can edit the same document at the same time. Everybody's changes are instantly reflected on all screens.

Work together on inventories, survey forms, list management, brainstorming sessions and more!

Create Spreadsheet
No sign-up, start writing instantly

Drop a .csv, .ods, or a .xlsx file here to import it

Rename sheet(s) after upload

Next Steps

	A	B	C	D
1				
2				
3				
4				

- Post meeting words to the wiki
- Email to the Group

Tip: You can create a pad with any web address you like. Just type it after the "/" in the domain name.

EtherCalc Sample Worksheet

A screenshot of the EtherCalc application running in Mozilla Firefox. The title bar reads "05ygmld1av1hu - EtherCalc - Mozilla Firefox". The address bar shows the URL "https://ethercalc.net/05ygmld1av1hu". The menu bar includes "Edit", "Format", "Sort", "Audit", "Comment", "Names", "Clipboard", "Form", and "Graph". Below the menu is a toolbar with various icons for operations like copy, paste, sort, audit, and comment. The main area is a blank spreadsheet grid with columns labeled A through P and rows labeled 1 through 22. Cell A1 is currently selected. A search bar at the top right says "Search sheet...". At the bottom, there is a navigation bar with icons for back, forward, search, and other document functions.

FOSS Online Text Editor

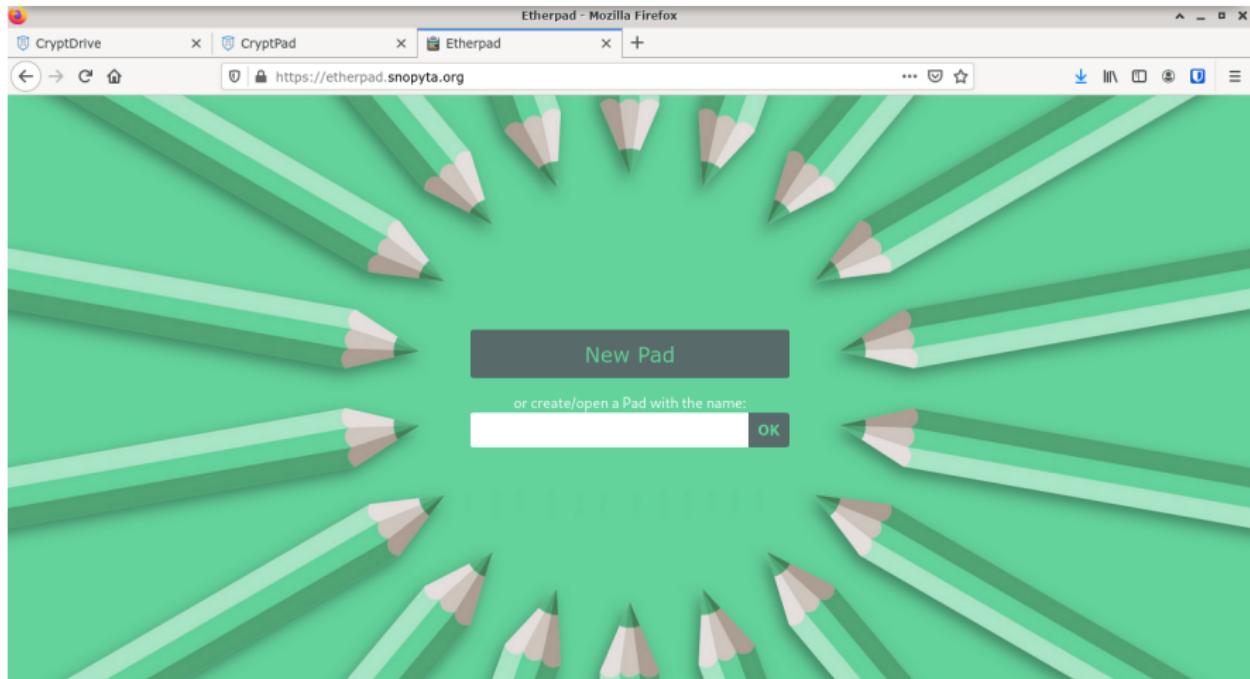


replaces



Google docs

EtherPad Website



EtherPad Sample Pad

A screenshot of a Mozilla Firefox browser window displaying an EtherPad sample pad. The title bar shows "yx6p3ghonwtSsV1ZKPM9 | Disroot pads - Mozilla Firefox". The address bar shows "https://pad.disroot.org/p/yx6p3ghonwtSsV1ZKPM9". The main content area contains the following text:

```
1 Welcome to Etherpad!
2
3 This pad text is synchronized as you type, so that everyone viewing this page sees the same text. This allows
4 you to collaborate seamlessly on documents!
5
6 Get involved with Etherpad at http://etherpad.org.
```

In the bottom right corner of the EtherPad interface, there is a "CHAT" button with a video camera icon and the number "0".

FOSS Online Storage



replaces



NextCloud

Files ▾

All files Favorites Shared with you Shared with others Shared by link Tags Deleted files Settings

Home +

Name	Size	Modified
Documents	87 KB	a minute ago
Music	24.3 MB	a minute ago
Cinelli Gazzetta.jpg	3.8 MB	a day ago
Don Norman - Living With Complexity.mp4	168.5 MB	2 minutes ago
ilya.jpg	101 KB	5 minutes ago
Montenegro cycling.jpeg	3.3 MB	a day ago
Packrafting_Book_Sample_Pages.pdf	1.1 MB	a day ago
welcome.txt	< 1 KB	2 days ago

2 folders and 6 files 201 MB

Back Forward Home Search Help Logout

Did You Know?

Even if you clear your browser data,
Chrome retains your Google website
data.

X

Aa

▼

Chrome won't clear your Google and YouTube data — even if you tell it to

By Louis Ramirez October 26, 2020

3-4 minutes

If you set Google Chrome to purge all website cookies and site data when you close the browser, it nonetheless keeps the site data for two specific websites: YouTube and Google itself.

So says Mac programmer [Jeff Johnson](#), who documented the naughty behavior in a blog post earlier this month (as earlier reported by [The Register](#)).

FOSS Web Browser



Firefox®

replaces chrome



Mozilla Firefox

The screenshot shows the Mozilla Firefox homepage. At the top, there's a browser window titled "Download Firefox Browser — Fast, Private & Free — from Mozilla - Mozilla Firefox". The address bar shows the URL "https://www.mozilla.org/en-US/firefox/new/". Below the browser window, the main content area features the Firefox logo and navigation links for "Browsers", "Products", "Join", and "About". A blue button "Get a Firefox Account" is visible, along with a link "Check out the Benefits".

Firefox Browser

Get the browser that protects what's important

No shady privacy policies or back doors for advertisers. Just a lightning fast browser that doesn't sell you out.

[Download Firefox](#)

Transferring data from www.mozilla.org...

A large promotional graphic on the right side of the page features a stylized orange and purple sun-like shape. It includes a screenshot of the Firefox browser displaying a search results page with various website icons (YouTube, Twitter, etc.) and some text snippets. The overall theme is one of privacy and security.

Advantages of Mozilla Firefox

- Extensions and Themes

Advantages of Mozilla Firefox

- Extensions and Themes
- Secure

Advantages of Mozilla Firefox

- Extensions and Themes
- Secure
- Consistent user experience

Advantages of Mozilla Firefox

- Extensions and Themes
- Secure
- Consistent user experience
- Minimalistic interface

Advantages of Mozilla Firefox

- Extensions and Themes
- Secure
- Consistent user experience
- Minimalistic interface
- Fast

FOSS Search Engine



DuckDuckGo

replaces

Google

DuckDuckGo

A screenshot of a Mozilla Firefox browser window. The title bar says "DuckDuckGo — Privacy, simplified. - Mozilla Firefox". The address bar shows the URL "https://duckduckgo.com". The main content area displays the DuckDuckGo logo (a white duck wearing a bow tie inside a red circle) and the text "DuckDuckGo". Below this is a search bar with the placeholder "Search the web without being tracked" and a magnifying glass icon. A large heading "Tired of being tracked online? We can help." is followed by the text "Get seamless privacy protection on your browser for free with one download:". Three checkboxes are shown: "Private Search" (checked), "Tracker Blocking" (checked), and "Site Encryption" (checked). A blue button says "Add DuckDuckGo to Firefox". At the bottom, it says "Privacy Protection For Any Device" and shows a rating of "Rated 4.5/5" with five stars.

Advantages of DuckDuckGo

- Privacy

Advantages of DuckDuckGo

- Privacy
- Clutter-free with no ads

Advantages of DuckDuckGo

- Privacy
- Clutter-free with no ads
- Uniform results

Advantages of DuckDuckGo

- Privacy
- Clutter-free with no ads
- Uniform results
- No risk of data breach

Advantages of DuckDuckGo

- Privacy
- Clutter-free with no ads
- Uniform results
- No risk of data breach
- Secure

Mathematical Typesetting

LATEX

replaces

MathType™



TexStudio

The screenshot shows the TexStudio interface with two main panes. The left pane displays the LaTeX source code for a document titled "Angles Formed by Secants and Tangents". The right pane shows the generated PDF output titled "Angles Formed by Secants and Tangents" with a total score of 32.

Left Pane (Code):

```
\begin{center}
    \textbf{Angles Formed by Secants and Tangents}\\
    \fbox{Total points = 32}
\end{center}

\begin{minipage}{0.9}
\begin{enumerate}[label = \arabic*.]
    \item \phantom{A}
    \item \begin{aligned} m\angle ATC &= \frac{1}{2}(m\widehat{AC} + m\widehat{BD}) \checkmark \\ &= \frac{1}{2}(40^\circ + 80^\circ) \checkmark \\ &= \frac{1}{2}(120^\circ) \checkmark \\ &= 60^\circ \checkmark \end{aligned}
    \item \begin{aligned} m\angle BTC &= \frac{1}{2}(m\widehat{AD} + m\widehat{BC}) \checkmark \\ 142^\circ &= \frac{1}{2}(156^\circ + m\widehat{BC}) \checkmark \\ 2(142^\circ) &= 156^\circ + m\widehat{BC} \checkmark \\ 284^\circ &= 156^\circ + m\widehat{BC} \checkmark \\ 284^\circ - 156^\circ &= m\widehat{BC} \checkmark \\ m\widehat{BC} &= 128^\circ \checkmark \end{aligned}
    \item \begin{aligned} m\widehat{AD} &= 360^\circ - (m\widehat{DBC} + m\widehat{AC}) \checkmark \\ m\widehat{AD} &= 360^\circ - (192^\circ + 52^\circ) \checkmark \\ m\widehat{AD} &= 360^\circ - 244^\circ \checkmark \\ m\widehat{AD} &= 116^\circ \checkmark \end{aligned}
\end{enumerate}
\end{minipage}
```

Line: 5 Column: 0 INSERT

Right Pane (PDF Output):

Angles Formed by Secants and Tangents

Total points = 32

A.

1. $m\angle ATC = \frac{1}{2}(m\widehat{AC} + m\widehat{BD}) \checkmark$
 $m\angle ATC = \frac{1}{2}(40^\circ + 80^\circ) \checkmark$
 $m\angle ATC = \frac{1}{2}(120^\circ) \checkmark$
 $m\angle ATC = 60^\circ \checkmark$
2. $m\angle BTC = \frac{1}{2}(m\widehat{AD} + m\widehat{BC}) \checkmark$
 $142^\circ = \frac{1}{2}(156^\circ + m\widehat{BC}) \checkmark$
 $2(142^\circ) = 156^\circ + m\widehat{BC} \checkmark$
 $284^\circ = 156^\circ + m\widehat{BC} \checkmark$
 $284^\circ - 156^\circ = m\widehat{BC} \checkmark$
 $m\widehat{BC} = 128^\circ \checkmark$
3. $m\widehat{AD} = 360^\circ - (m\widehat{DBC} + m\widehat{AC}) \checkmark$
 $m\widehat{AD} = 360^\circ - (192^\circ + 52^\circ) \checkmark$
 $m\widehat{AD} = 360^\circ - 244^\circ \checkmark$
 $m\widehat{AD} = 116^\circ \checkmark$

Advantages of LaTeX

- Easy to use math, symbols, etc.

Advantages of LaTeX

- Easy to use math, symbols, etc.
- Platform independent

Advantages of LaTeX

- Easy to use math, symbols, etc.
- Platform independent
- Produces aesthetically beautiful documents.

Advantages of LaTeX

- Easy to use math, symbols, etc.
- Platform independent
- Produces aesthetically beautiful documents.
- It's just text; anyone can edit your file.

Advantages of LaTeX

- Easy to use math, symbols, etc.
- Platform independent
- Produces aesthetically beautiful documents.
- It's just text; anyone can edit your file.
- Complex structure such as footnotes, references, table of contents, and bibliographies can be easily generated.

FOSS Pdf Reader



replaces



Adobe® **PDF Reader**

Calibre

calibre - || Calibre Library ||

Add books Edit metadata Convert books View Get books Fetch news Help Remove books Calibre Library

Virtual library Search (For advanced search click the gear icon to the left) Search Saved search

	Title	Author(s)	Date	Size (MB)	Rating	Tags	Ser
1	Quick Start Guide	John Schember	09 Sep 2020	0.1			

Authors Languages Series Formats Publisher Rating News Tags Identifiers

Quick Start Guide



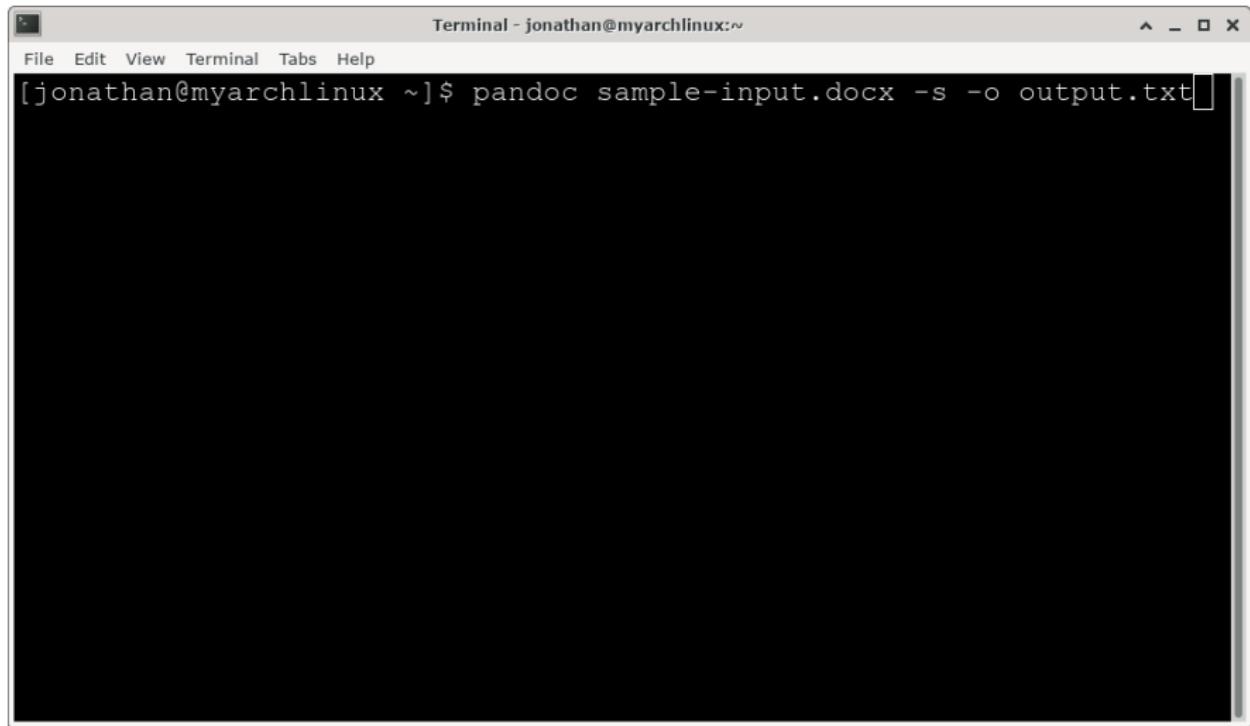
Authors: John Schember
Formats: EPUB
Path: Click to open

calibre Quick Start Guide

FOSS Document Converter

Pandoc a universal document converter

Pandoc



A screenshot of a terminal window titled "Terminal - jonathan@myarchlinux:~". The window has a dark background and a light-colored title bar. The menu bar includes "File", "Edit", "View", "Terminal", "Tabs", and "Help". The command line shows the user running the Pandoc command: [jonathan@myarchlinux ~]\$ pandoc sample-input.docx -s -o output.txt. The command is partially typed, with the cursor at the end of "output.txt".

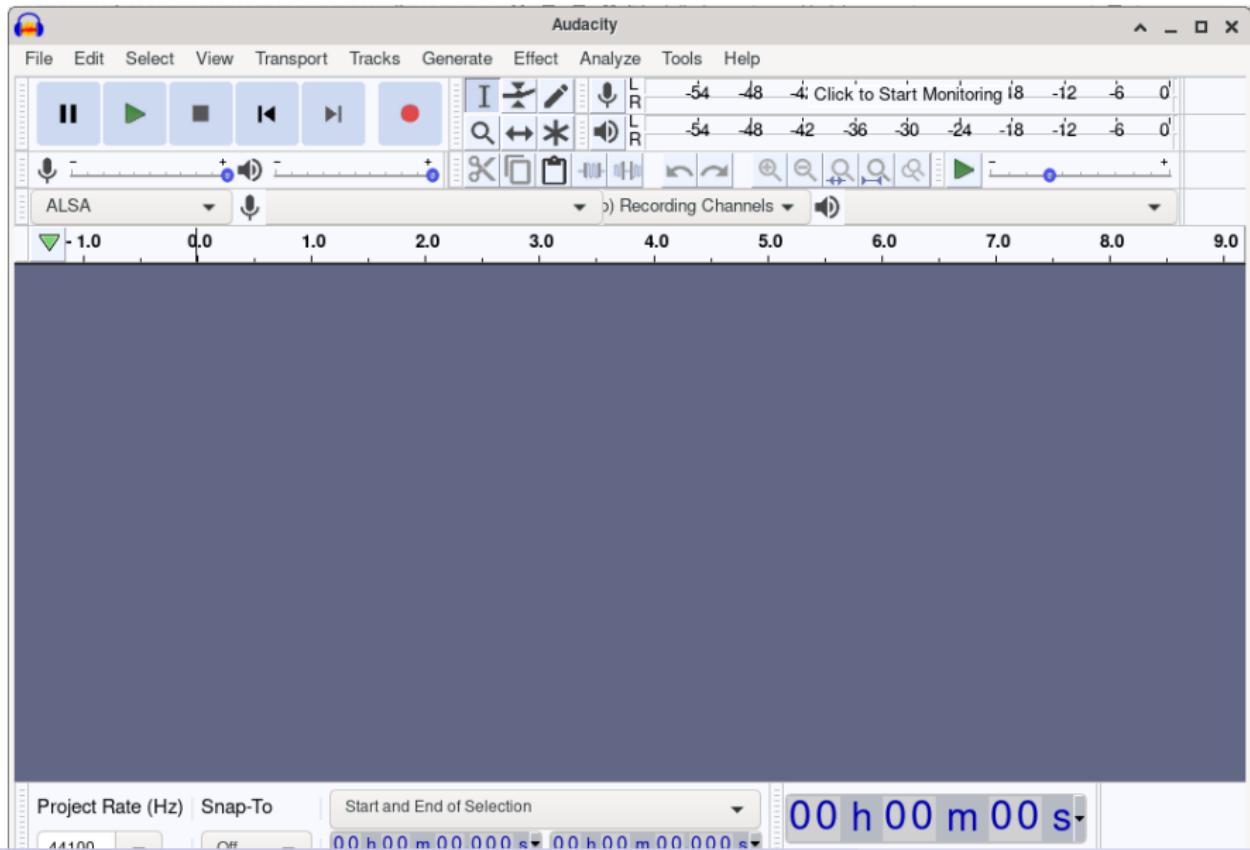
FOSS for Teachers

FOSS for Multimedia

FOSS Audio Editor



Audacity

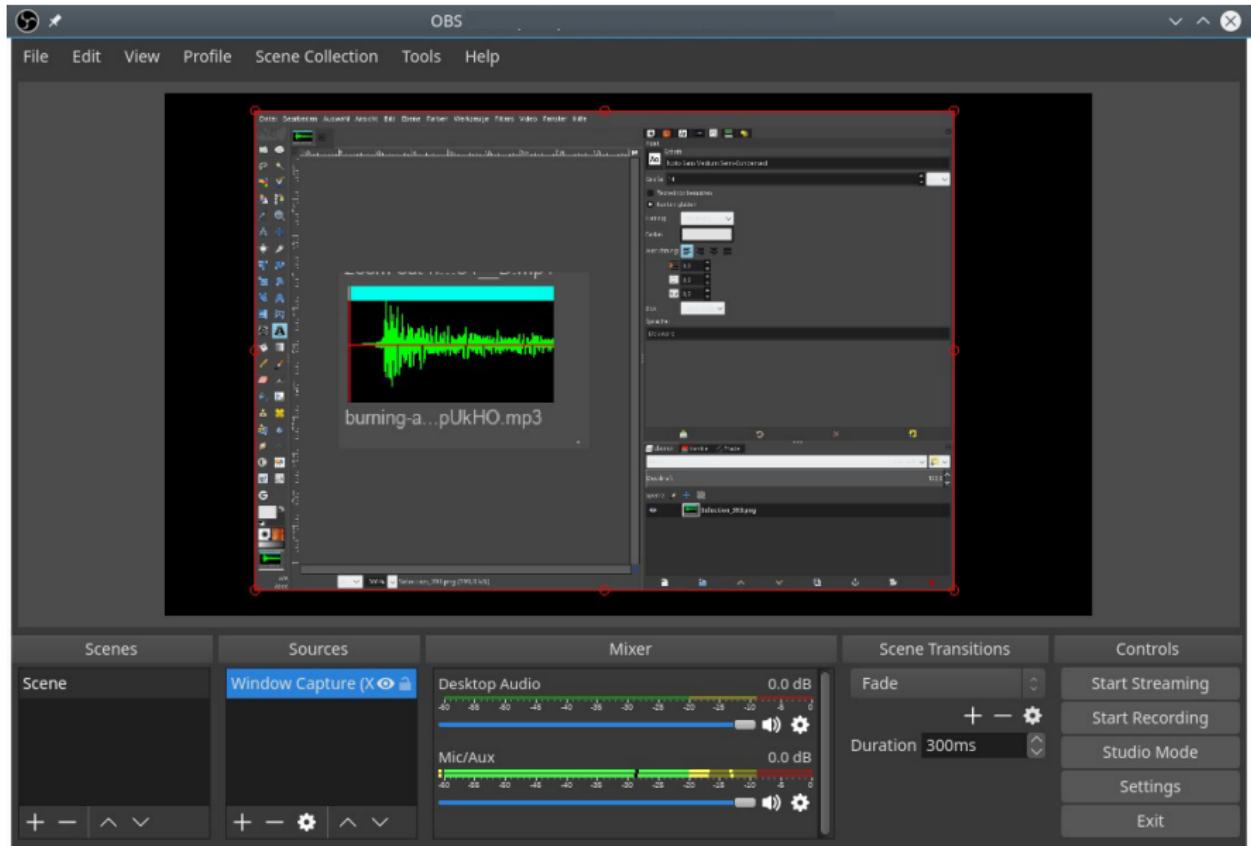


FOSS Video Recorder/Streamer



OBS Studio

Open Broadcaster Software



FOSS Video Downloader

YouTube - DL

Youtube-dl

A screenshot of a terminal window titled "Terminal - jonathan@myarchlinux:~". The window has a standard title bar with icons for maximizing, minimizing, and closing. Below the title bar is a menu bar with "File", "Edit", "View", "Terminal", "Tabs", and "Help". The main area of the terminal shows a command-line session:

```
[jonathan@myarchlinux ~]$ youtube-dl https://www.youtube.com/watch?v=kpgaJOXG5CM
```

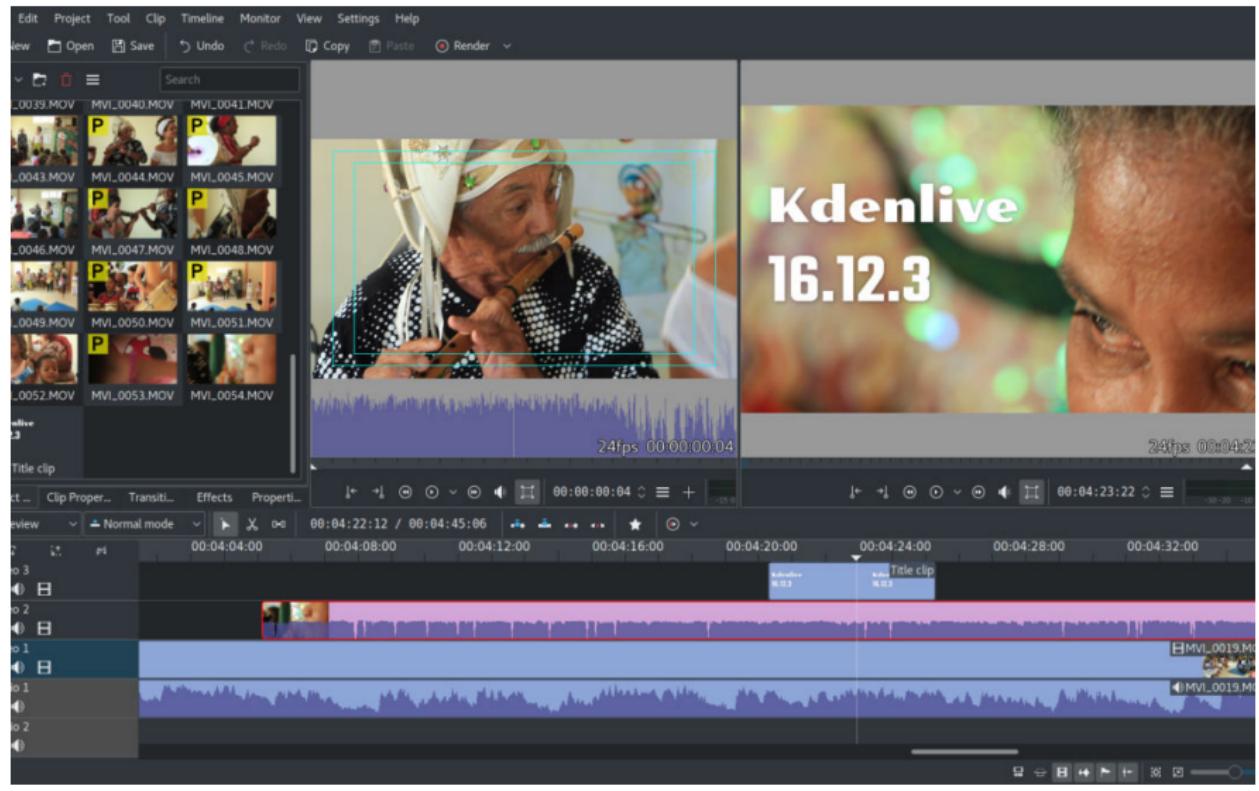
The command "youtube-dl https://www.youtube.com/watch?v=kpgaJOXG5CM" is entered and ready to be executed. The terminal window is set against a dark background.



FOSS Video Editor



Kdenlive



FOSS Photo Editor



replaces



GNU Image Manipulation Program



FOSS for Teachers

FOSS for Online Classes

Did You Know?

Google misled users over data privacy issues.

Google Misled Users Over Privacy Issues According To Regulator



By **David Challis** July 27, 2020



Web Conferencing



Jitsi Meet replaces

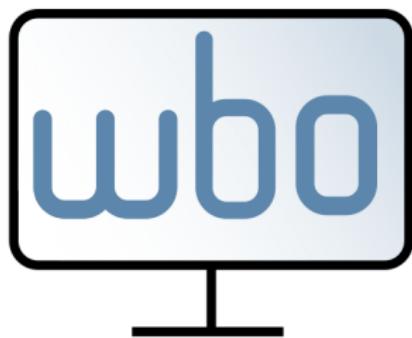


Google Meet

Jitsi Meet

The screenshot shows a Mozilla Firefox browser window with the Jitsi Meet website loaded. The address bar displays <https://meet.jit.si>. The main content area features a blue header with the Jitsi logo and the text "Secure, fully featured, and completely free video conferencing". Below this, a sub-header reads: "Go ahead, video chat with the whole team. In fact, invite everyone you know. Jitsi Meet is a fully encrypted, 100% open source video conferencing solution that you can use all day, every day, for free — with no account needed." A search bar contains the text "IntimateExpedition". A "GO" button is visible next to the search bar. At the bottom, there is a message about connecting your calendar and a status bar indicating "Waiting for web-cdn.jitsi.net...". The browser interface includes standard navigation buttons and a search bar at the bottom.

Web-based Whiteboard



replaces



Jamboard

WBO

The screenshot shows a Firefox browser window with the title bar "WBO — Collaborative whiteboard - Mozilla Firefox". The address bar displays the URL "https://wbo.ophir.dev". The main content area features a large "WBO" logo at the top center. Below it, a message reads: "Welcome to the free online whiteboard WBO! WBO is a free and open-source online collaborative whiteboard that allows many users to draw simultaneously on a large virtual board. The board is updated in real time for all connected users, and its state is always persisted. It can be used for many different purposes, including art, entertainment, design and teaching." A sub-message below says: "To collaborate on a drawing in real time with someone, just send them its URL." At the bottom left, a button says "Go to the public board". At the bottom right, a button says "Create a private board".

Welcome to the free online whiteboard WBO!

WBO is a free and open-source online collaborative whiteboard that allows many users to draw simultaneously on a large virtual board. The board is updated in real time for all connected users, and its state is always persisted. It can be used for many different purposes, including art, entertainment, design and teaching.

To collaborate on a drawing in real time with someone, just send them its URL.

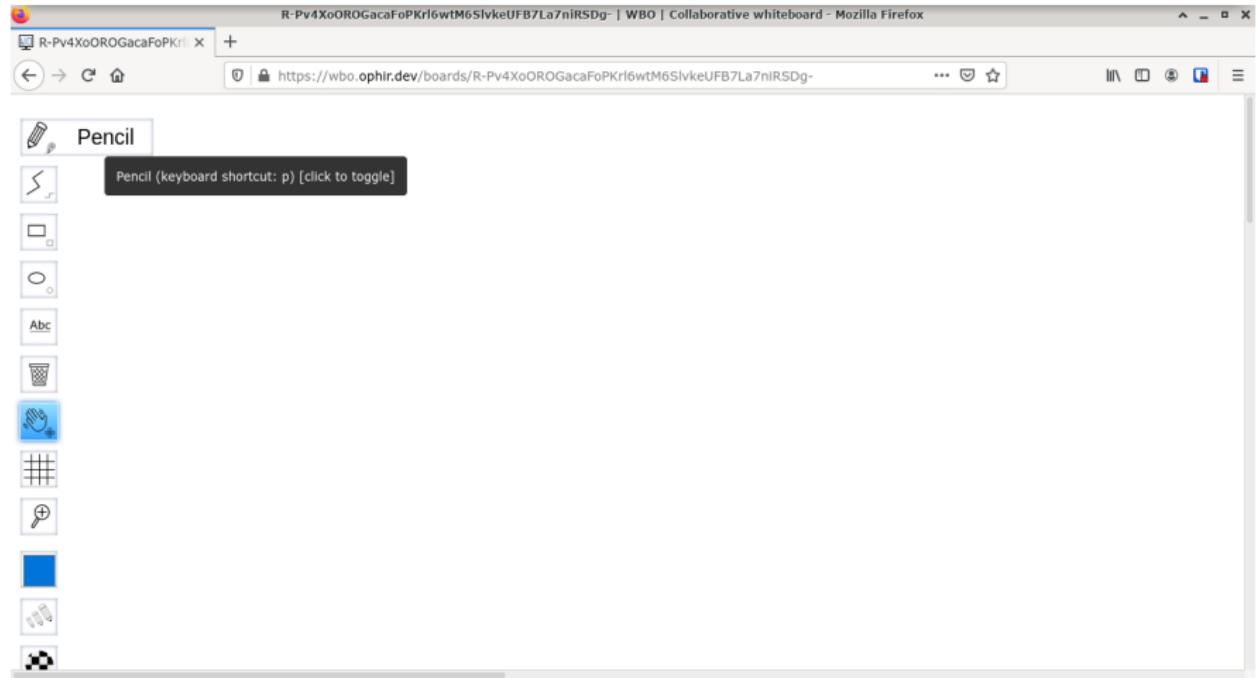
The public board is accessible to everyone. It is a happily disorganized mess where you can meet with anonymous strangers and draw together. Everything there is ephemeral.

Go to the public board

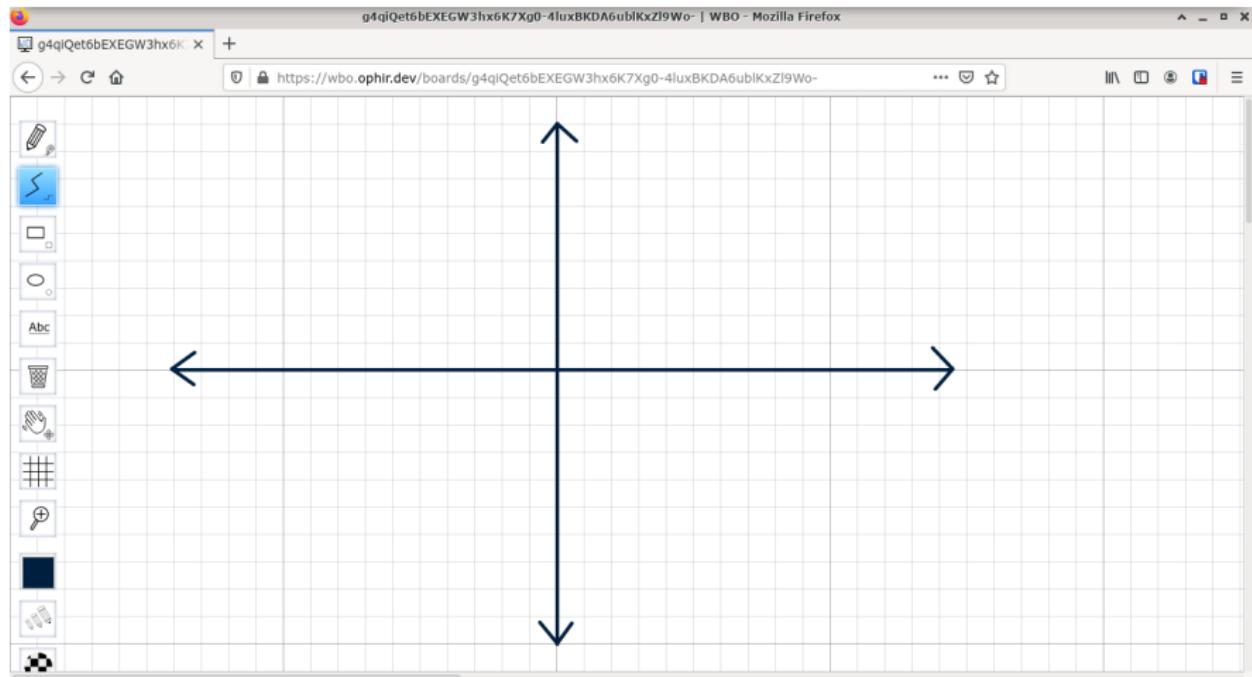
You can create a private board with a random name, that will be accessible only by its link. Use this if you want to share private information.

Create a private board

Sample WBO Whiteboard



Sample WBO Grid



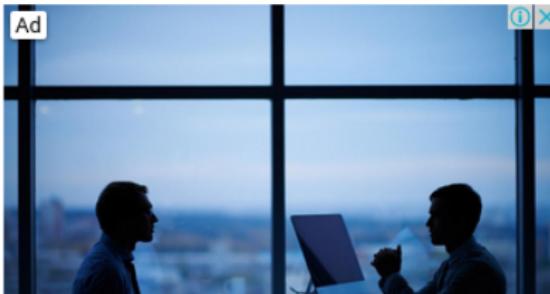
Did You Know?

Smart and Globe can be sued for the violation of the Data Privacy Act because they subjected Filipinos to data collection without consent.

Case against Facebook use in Education

Published August 19, 2020, 11:26 AM
by [Jonathan Castillo](#)

Advertisement



Unleashing growth potentials - Leading transforming equipping

Holistic and integrated process reengineering driving PROFITability and resiliency.



moward.com.ph

[VISIT SITE](#)

Written by Prof. Rom Feria

I have been openly critical of the use of Facebook by teachers and school/college/university



Did You Know?

Facebook Messenger app leaks your sensitive data.

X
Aa
▼

[arstechnica.com](#)

Study shows which messengers leak your data, drain your battery, and more

Dan Goodin - 10/27/2020, 5:31 AM

4-5 minutes

MESSENGER BAKE-OFF —

Link previews provide convenience. They can also compromise privacy or security.



FOSS Chat App

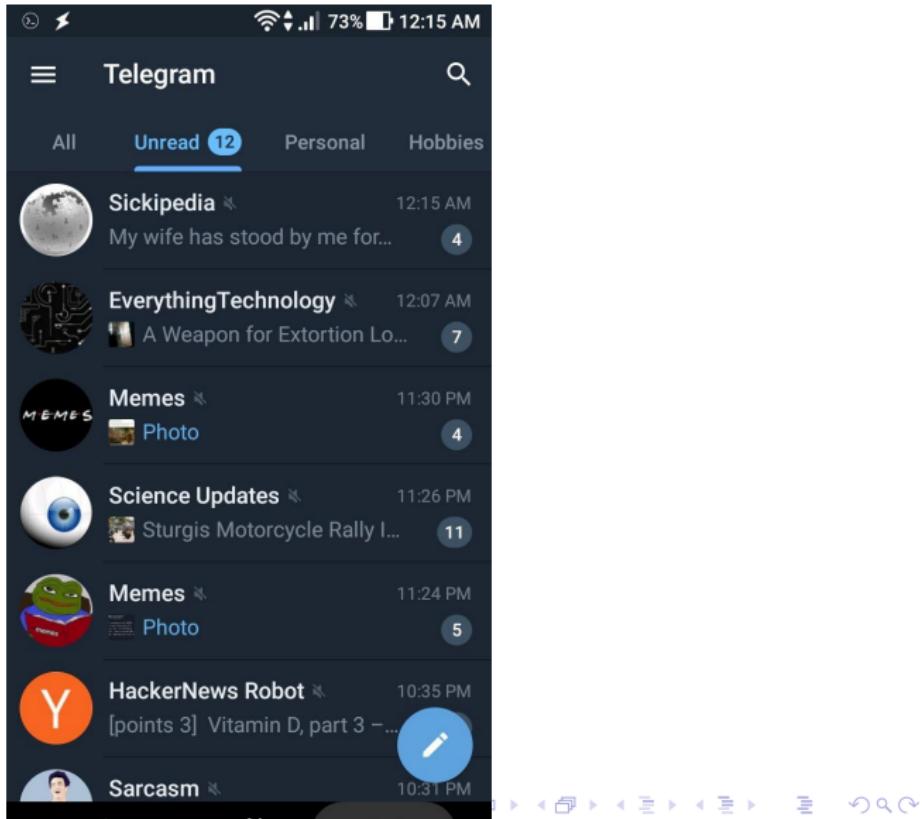


replaces

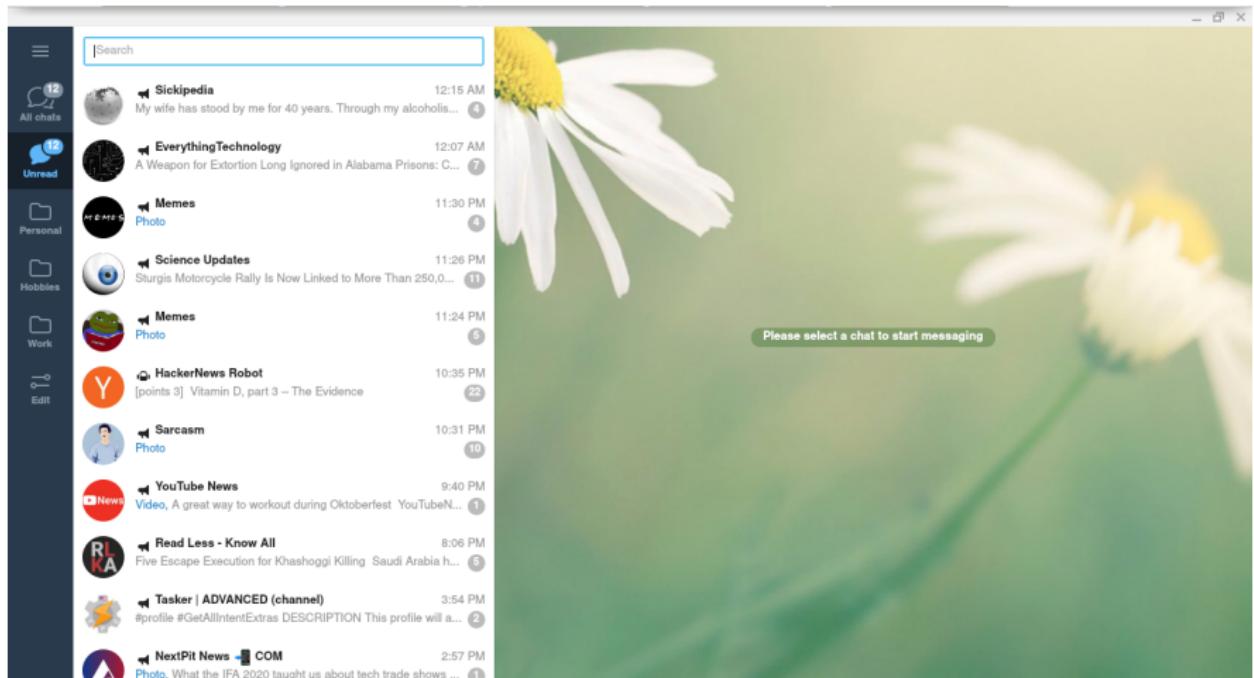


Telegram

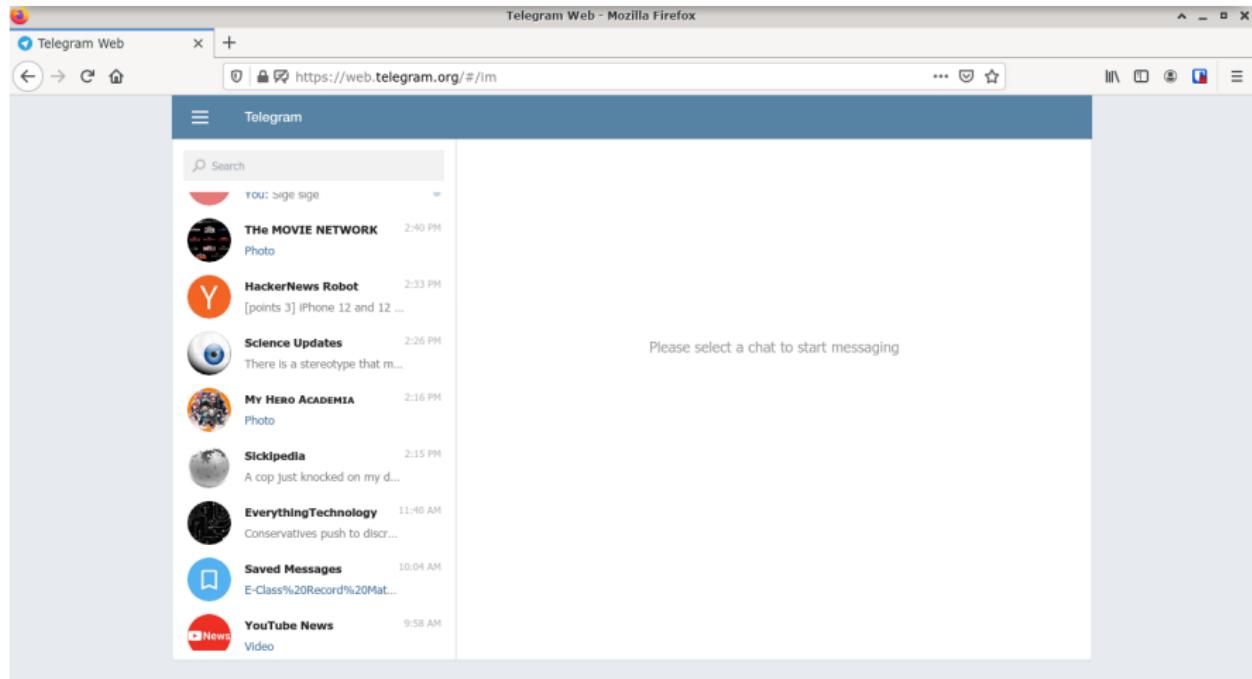
Telegram for Android



Telegram for Desktop



Telegram for Web



Advantages of Telegram

- 2GB file size limit

Advantages of Telegram

- 2GB file size limit
- Platform independent

Advantages of Telegram

- 2GB file size limit
- Platform independent
- Supports and compiles LaTeX.

Advantages of Telegram

- 2GB file size limit
- Platform independent
- Supports and compiles LaTeX.
- Can create quizzes and polls.

Advantages of Telegram

- 2GB file size limit
- Platform independent
- Supports and compiles LaTeX.
- Can create quizzes and polls.
- Tabs for organization.

Advantages of Telegram

- 2GB file size limit
- Platform independent
- Supports and compiles LaTeX.
- Can create quizzes and polls.
- Tabs for organization.
- Secure
- Pinned messages

FOSS for Teachers

FOSS for Test Correction

Exam Auto-Checker

The screenshot shows the 'Exam Auto-Checker' application window. At the top left is a logo consisting of two blue and yellow stylized shapes. The title 'Exam Auto-Checker' is centered at the top. On the right side of the title are standard window control buttons: a downward arrow, a minus sign, a square, and an 'X'. The main interface is divided into two vertical sections. The left section has a dark blue header with three input fields: 'Assessment Type:' (with an empty text input), 'Outputs Folder:' (with an empty text input and a 'Browse' button), and 'Answer Key:' (with an empty text input and a 'Browse' button). Below these fields is a text area containing the placeholder 'Enter the student's infos and answers.' followed by a large empty text box with scroll bars. The right section has a dark blue header with the word 'Results:' and a large empty text box below it, also with scroll bars. At the bottom of the left section are three buttons: 'Submit', 'Save', and 'Exit'. The bottom of the window features a horizontal toolbar with various icons for file operations like back, forward, search, and refresh.

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Results:

Submit



Rationale

- Converting worksheets to Google Forms is tedious.

Rationale

- Converting worksheets to Google Forms is tedious.
- Manual checking and recording of student outputs is time-consuming.

Strengths

- Can be used with any chat app.

Strengths

- Can be used with any chat app.
- Automatically checks, saves, and records student outputs.

Strengths

- Can be used with any chat app.
- Automatically checks, saves, and records student outputs.
- Multi-platform — can be used in Windows, Linux, and Android.

Strengths

- Can be used with any chat app.
- Automatically checks, saves, and records student outputs.
- Multi-platform — can be used in Windows, Linux, and Android.
- Can check most types of test:
Multiple choice, True/False,
Matching type, Fill in the blank.

Strengths

- Can be used with any chat app.
- Automatically checks, saves, and records student outputs.
- Multi-platform — can be used in Windows, Linux, and Android.
- Can check most types of test:
Multiple choice, True/False,
Matching type, Fill in the blank.
- Does not consume data.

Weaknesses

- Cannot check Math solutions.

Weaknesses

- Cannot check Math solutions.
- Accuracy depends on input.

Usage

Create answer key.



/home/jonathan/Documents/myscripts/sample ^ _ □ ×

File Edit Search View Document Help

```
1. a
2. b
3. c
4. d
5. E
6. F
7. false|
8. an apple
9. TRUE
10. (x-y)
```

Send worksheet.

2:06 PM

Worksheet on Factoring the Difference of Two Squares

A. Perfect Square or Not

Write PS if the algebraic expression is a perfect square or NPS if it is not a perfect square. One point each.

1. $25a^2b^2$
2. $81m^2$
3. $2x^2$
4. $196n^4$
5. $20c^2$

B. Yes or No

Write Yes if the algebraic expression is a difference of two squares or No if it is not a difference of two squares. One point each.

1. $9x^2 - 1$
2. $36k^2 - 4$
3. $4n^2 - 49$
4. $144a^3 - 25b^2$
5. $a^2 - 25b^2$

C. Multiple Choice

Factor the following binomials completely. Choose the correct answer from the given choices. One point each.

1. $36x^2 - 64$
 - a) $(6x + 8)(6x - 8)$
 - b) $(6x - 8)(6x + 8)$
2. $16x^4 - 49y^2$
 - a) $(4x^2 + 7y^2)(4x^2 - 7y^2)$
 - b) $(4x^2 - 7y^2)(4x^2 + 7y^2)$
3. $4a^2 - b^2$
 - a) $(2a - b^2)(2a - b^2)$
 - b) $(2a + b^2)(2a - b^2)$
4. $81m^6n^4 - 9z^2$
 - a) $(9m^3n + 3z)(9m^3n - 3z)$
 - b) $(9m^3n - 3z)(9m^3n + 3z)$
5. $16m^2 - 81b^2$
 - a) $(4m^2 - 9b^2)(4m^2 + 9b^2)$
 - b) $(4m^2 + 9b^2)(4m^2 - 9b^2)$
- c) $2(3x + 4)(3x - 4)$
- d) $4(3x + 4)(3x - 4)$
- c) $(4x^2 + 7yz)(4x^2 - 7yz)$
- d) $(4x^2 - 7yz)(4x^2 + 7yz)$
- c) $(2a - b^2)(2a - b^2)$
- d) $(2a + b^2)(2a - b^2)$
- c) $3(3m^3n + z^2)(3m^3n - z^2)$
- d) $9(3m^3n + z^2)(3m^3n - z^2)$
- c) $(4m^2 - 9b^2)(4m^2 + 9b^2)$
- d) $(4m^2 + 9b^2)(4m^2 - 9b^2)$

D. Fill in the blanks

Type the correct answer in the blank. One point each.

1. $4a^2 - b^2 = (2a + \underline{\hspace{1cm}})(2a - \underline{\hspace{1cm}})$
2. $c^4 - 1 = (\underline{\hspace{1cm}} + 1)(\underline{\hspace{1cm}} - 1)(\underline{\hspace{1cm}} + 1)(\underline{\hspace{1cm}} - 1)$
3. $144x^4 - 100y^4 = (\underline{\hspace{1cm}} + 5y^2)(\underline{\hspace{1cm}} - 5y^2)$
4. $180m^2 - 5 = (\underline{\hspace{1cm}} + 1)(\underline{\hspace{1cm}} - 1)$
5. $20a^3 - 45 = (\underline{\hspace{1cm}} + 3)(2a - \underline{\hspace{1cm}})$
6. $36a^2 - 25b^2 = (6a + 5b)(\underline{\hspace{1cm}} - 5b^2)$
7. $125m^2 - 20n^2 = 5(5m^2 + \underline{\hspace{1cm}})(5m^2 - 2n^2)$
8. $4x^2m - 36y^2m = (\underline{\hspace{1cm}} + 3y^2)(\underline{\hspace{1cm}} - 3y^2)$
9. $2x^2r - 72y^2r = 2(\underline{\hspace{1cm}} + 6y^2)(\underline{\hspace{1cm}} - \underline{\hspace{1cm}})$
10. $64x^4 - y^4 = (\underline{\hspace{1cm}} + y^2)(\underline{\hspace{1cm}} - y^2)$



Type a message...



Copy student's input.

Bacolod, Jonathan

8-Hubble

B3

1. a

2. b

3. c

4. d

5. a

6. b

7. c

8. an apple

9. true

10. $(x-y)$



Type a message...



Paste input to app.

 Exam Auto-Checker

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Bacolod, Jonathan
8-Hubble
B3

1. a
2. b
3. c
4. d
5. a
6. b
7. c
8. an apple
9. true
10. (x-y)

Results:

Enter assessment type.

 Exam Auto-Checker

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Bacolod, Jonathan
8-Hubble
B3

1. a
2. b
3. c
4. d
5. a
6. b
7. c
8. an apple
9. true
10. (x-y)

Results:

Browse to output folder.

 Exam Auto-Checker

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Bacolod, Jonathan
8-Hubble
B3

1. a
2. b
3. c
4. d
5. a
6. b
7. c
8. an apple
9. true
10. (x-y)

Results:

Browse to answer key.

 Exam Auto-Checker

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Bacolod, Jonathan
8-Hubble
B3

1. a
2. b
3. c
4. d
5. a
6. b
7. c
8. an apple
9. true
10. (x-y)

Results:



Click Submit.

Exam Auto-Checker

Assessment Type:

Outputs Folder:

Answer Key:

Enter the student's infos and answers.

Bacolod, Jonathan
8-Hubble
B3

1. a
2. b
3. c
4. d
5. a
6. b
7. c
8. an apple
9. true
10. $(x-y)$

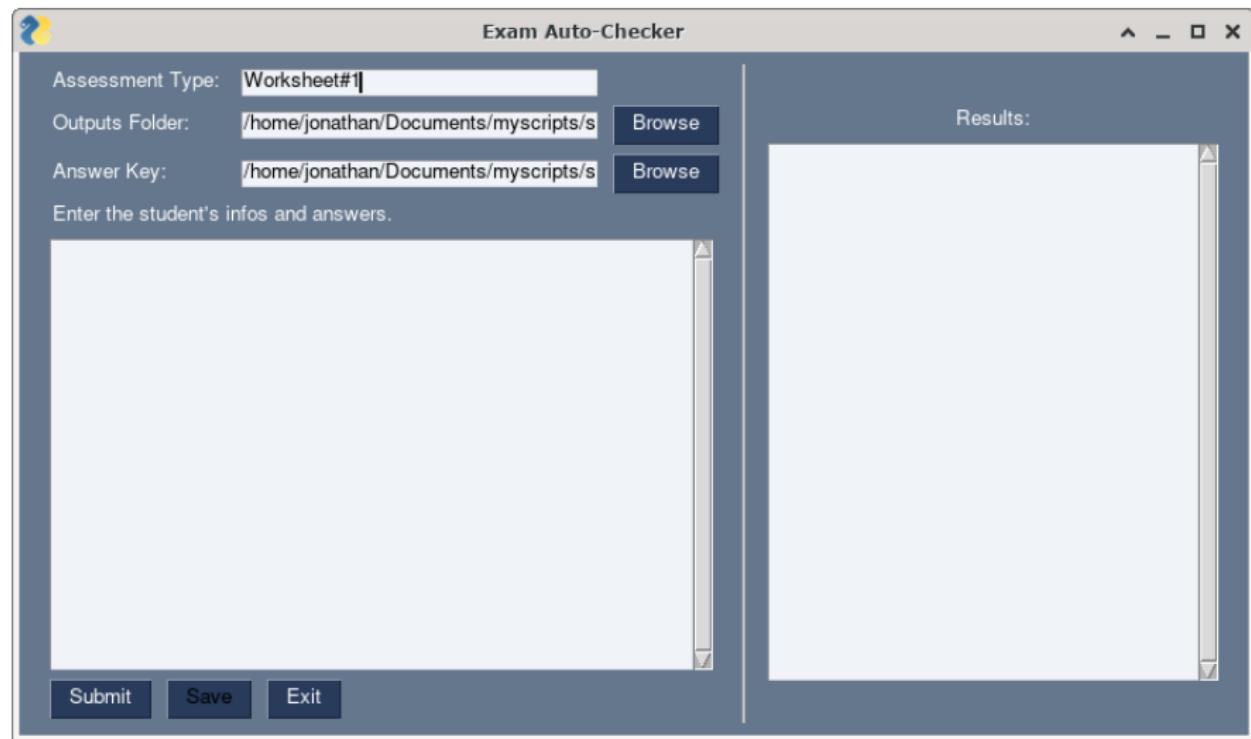
Results:

Bacolod, Jonathan
8-Hubble
B3
Worksheet#1

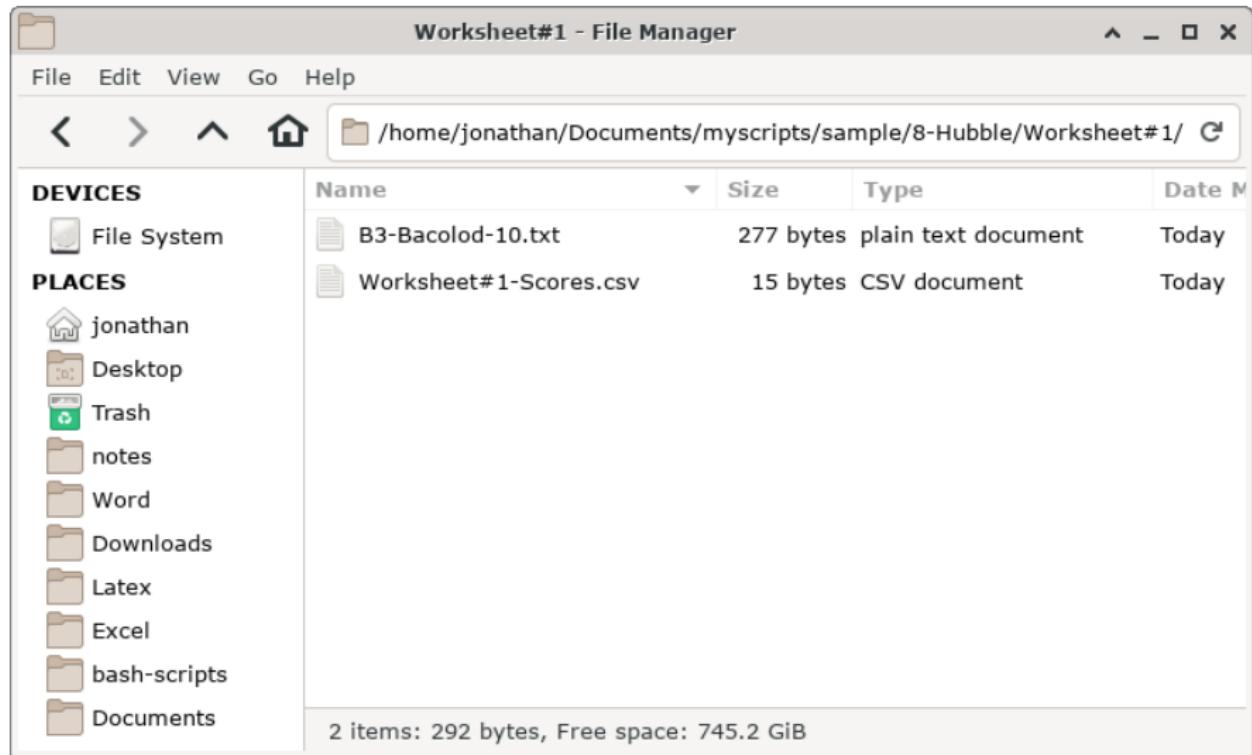
1. a (a) Correct
2. b (b) Correct
3. c (c) Correct
4. d (d) Correct
5. a (a) Correct
6. b (b) Correct
7. c (c) Correct
8. an apple (an apple) Correct
9. true (true) Correct
10. $(x-y)$ ($(x-y)$) Correct

Score = 10
Mistake = 0
Total = 10

Click Save.



The result.



The recorded scores.

Worksheet#1-Scores.csv - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Window Help

Liberation Sans 10 pt B I U A

A1 fx Σ = Code

	A	B	C	D	E	F	G	H	I	J
1	Code	10								
2	B3	10								
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										

Find All Formatted Display Match Case

Sheet 1 of 1 Default Page Style English (USA) Average: ; Sum: 0 100%

If interested, please visit

<https://github.com/cityofsmiles/ExamAutoChecker>

Thank you!

Online Sources

<https://mb.com.ph/2020/08/19/case-against-facebook-use-in-education/>

<https://www.gmanetwork.com/news/money/companies/753042/microsoft-s-software-alliance-says-64-of-companies-in-philippines-use-unlicensed-software/story/>

<https://cnnphilippines.com/news/2020/8/4/PhilHealth-Ricardo-Morales-overpriced-IT-projects-corruption.html?fbclid=IwAR2t9HjNjCuzeXZWplexCmBoJzjA0sn2ubjnefsxj01uTsYIY4WppUkuQ>

<https://www.androidheadlines.com/2020/07/google-misled-users-over-privacy-issues-according-to-regulator.html>

<https://www.cnet.com/news/google-alphabet-earnings-fourth-quarter-2018/>

<https://businessmirror.com.ph/2020/09/04/the-advantages-of-using-linux/>

<https://www.tomsguide.com/news/chrome-google-site-data-special-treatment>

<https://arstechnica.com/information-technology/2020/10/study-shows-which-messengers-leak-your-data-drain-your-battery-and-more/>

Online Sources

<https://securityboulevard.com/2020/08/phishing-campaign-uses-internal-email-to-trick-employees-into-sharing-office-365-credentials/>

<https://www.channelasia.tech/article/679771/supreme-court-philippines-rolls-microsoft-365-unveils-virtual-courtrooms/>

<https://healthitsecurity.com/news/bec-phishing-campaigns-bypass-mfa-target-office-365-executive-accounts>

<https://sea.pc当地.com/encryption-products/38803/windows-computers-account-for-83-of-all-malware-attacks-in-q1-2020>

<https://www.bleepingcomputer.com/news/microsoft/windows-10-themes-can-be-abused-to-steal-windows-passwords/>

<https://www.zdnet.com/article/malware-gang-uses-net-library-to-generate-excel-docs-that-bypass-security-checks/>

<https://itsfoss.com/linux-runs-top-supercomputers/>

<https://www.gnu.org/education/edu-schools.html>

<https://www.euroweeklynews.com/2020/10/10/google-provide-police-with-your-keyword-searches/amp/>