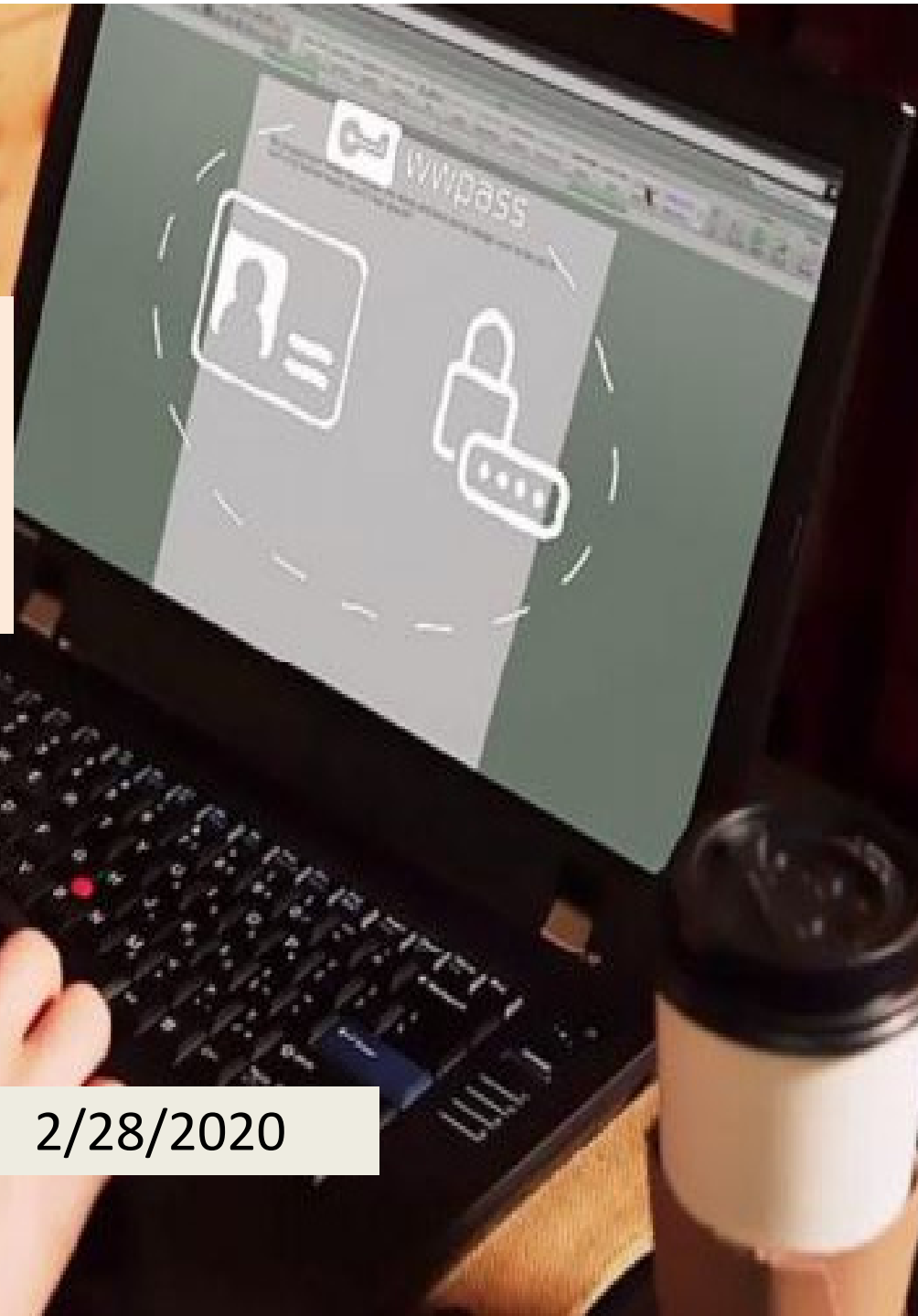
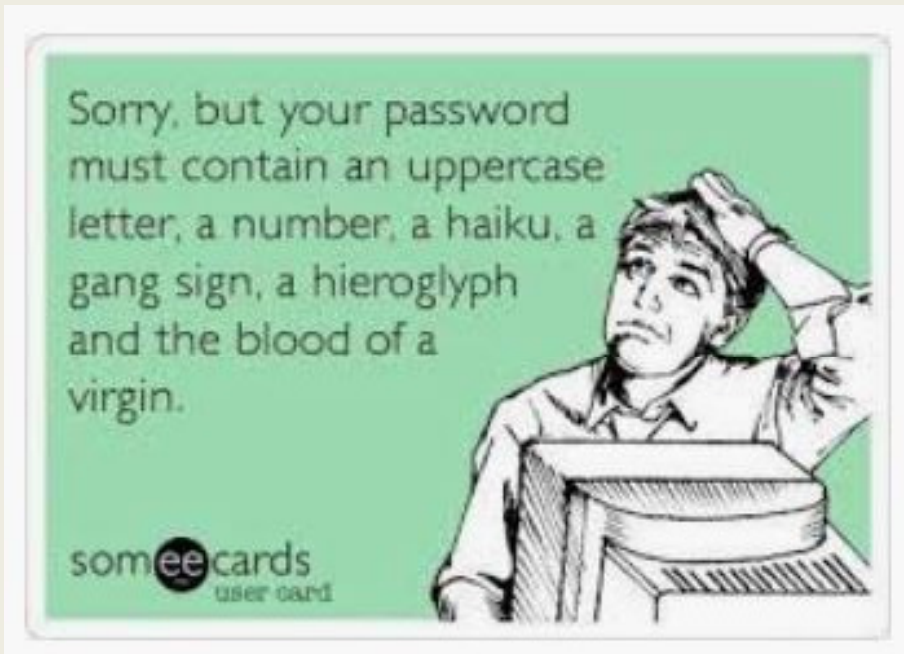


# Password Management Made Easy

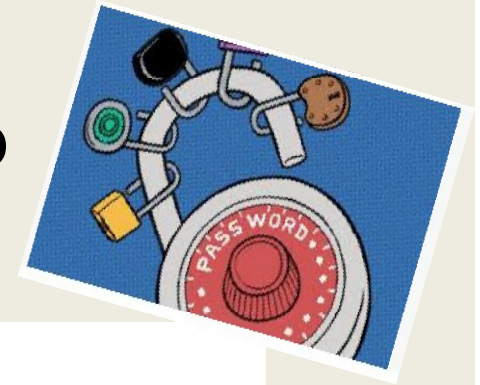
Carol Freedman 2/28/2020



# Can you relate?



# Where are you now?



How do you manage your Passwords?  
In a survey 130,000 Business Owners revealed:



# Types of information that cyber criminals can gain through data leakage



# How do they get info?







# The FBI says

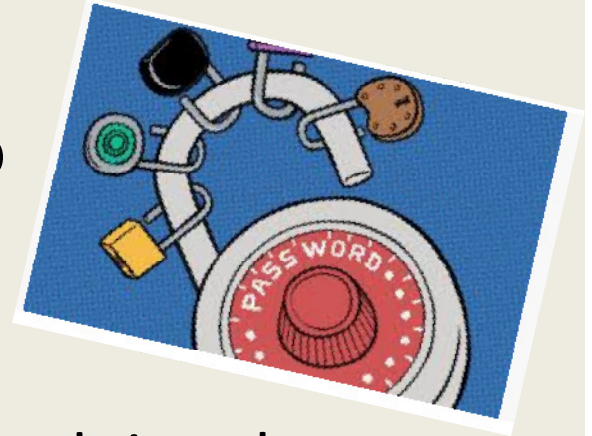
## **FBI recommends passphrases over password complexity**

Longer passwords, even consisting of simpler words or constructs, are better than short passwords with special characters.

The idea behind the FBI's advice is that a longer password, even if relying on simpler words and no special characters, will take longer to crack and require more computational resources.

Even if hackers steal your encrypted password from a hacked company, they won't have the computing power and time needed to crack the password.

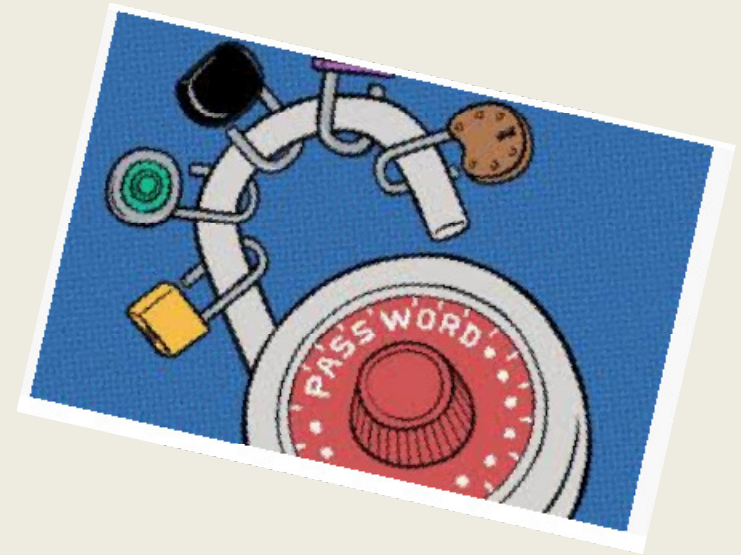
# What's the risk?



- And remember: it's not humans who are doing the guessing. It's computers. An ordinary desktop computer can test over a hundred million passwords per second — and this number climbs to billions of passwords per second if the computer is using GPU-based [cracking](#) tools. Password length and complexity are essential.

# Tips ( from 'wired')

- Take a line from favorite song, first letter of each word, #s from friends bday and symbols you like
- Go long—12-15 letters
- Separate your symbols and don't use at beginning or end
- Single use only
- Don't keep them in text files
- Don't trust your browser
- Add 2fa





# Other Qualities of Good Passwords

## Tips for strong passwords:

- at least eight characters or more
- contain a mix of four different types of characters: upper/lower case letters, numbers and special characters like \*/"&
- if you only have one special character in your password don't make it the first or last character in your password i.e. aGdQl01@
- your password shouldn't be a name or word in any language in the dictionary
- your password should not include any part of your name, address or date of birth
- you can keep a hint of your password but don't include any related services or websites linked to it
- use a different password for every service or website.



# Criteria for PW Mgr



- Ability to import/export pws to other pw mgrs
- Can analyze your pw's and generate strong ones
- Can autofill and auto-login
  - Integrates with the browser and captures the user name and password when you log in
  - Best ones also capture when you change them and offer to update the stored PW
  - Automatically fill the saved data and show if have more than one set of credentials
- Can do 2 factor authentication (2FA)—pin, fingerprint, etc.
- Protects other data (credit cards, bank accounts, other personal data)
- Can share passwords (especially for legacy)



# Where to start



- Check your passwords for strength
- Use a pw generator for important sites
- Use different passwords for all important sites
- Back up your passwords
- Use 2FA
- Try free versions (Last Pass, Avast)
- Buy cheap (Roboform)
- Install and synch on all your devices

# Long Password Generator

## Correct Horse Battery Staple

Secure password generator to help keep you safer online

Sugar-Mark-Sit-Red-Congratulation-2

Length:  
35

Min words

Min Length  (including the separator)

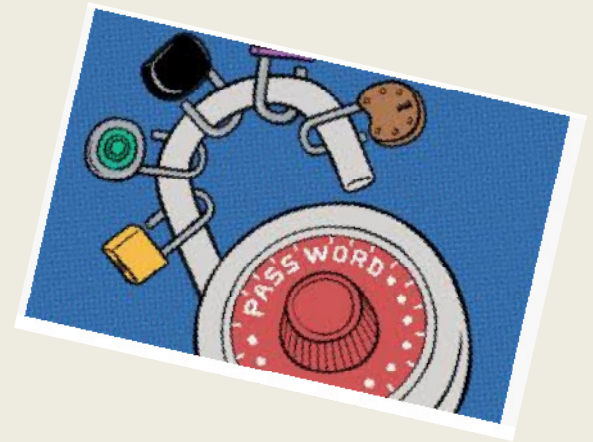
Separator  (Multiple values will be used randomly, try \* & ^ % \$ # ! )

- ☒ Make First Letter Uppercase
- ☒ Append random number to the end (0 - 9)
- ☐ Save these options.\*

<https://correcthorsebatterystaple.net/>

# Which sites should have strong passwords?

- Your email
- Anywhere you spend money
  - Banks
  - Amazon, ebay
  - Investments
- Social media (FB, Twitter, Instagram)





# Google chrome settings

The screenshot shows the Google Chrome settings page. The browser's address bar at the top displays 'chrome://settings'. The settings page has a blue header with the word 'Settings' and a search bar. On the left, a sidebar lists various settings categories: 'You and Google', 'Autofill', 'Appearance', 'Search engine', 'Default browser', 'On startup', 'Advanced', 'Extensions', and 'About Chrome'. The main content area is divided into two sections. The 'You and Google' section shows a profile card for 'carolhdandyou@gmail.com' with the status 'Sync is paused'. Below this are links for 'Sync and Google services', 'Chrome name and picture', and 'Import bookmarks and settings'. The 'Autofill' section is expanded, showing options for 'Passwords', 'Payment methods', and 'Addresses and more'. Two red circles are drawn on the image: one around the 'Paused' button in the top right corner of the browser window, and another around the 'Autofill' category in the left sidebar.

Chrome | chrome://settings

Settings

You and Google

Sync is paused  
carolhdandyou@gmail.com

Turn off Sign in again

Sync and Google services  
Sign in again to resume sync

Chrome name and picture

Import bookmarks and settings

Autofill

Passwords

Payment methods

Addresses and more

# Google/Chrome Password Manager

Chrome | chrome://settings/passwords

Settings Search settings

You and Google

Autofill

Appearance

Search engine

Default browser

On startup

Advanced

Extensions

About Chrome

View and manage saved passwords in your **Google Account**

Saved Passwords

Website	Username	Password
...itment.2020census.gov	4442464	Pookieismydog2!
...itment.2020census.gov	calling2carol	.....
...itment.2020census.gov	calling2carol@gmail.com	.....
amazon.com	call2carol@pacbell.net	.....
amazon.com	calling2carol@gmail.com	.....
americanexpress.com	call2carol	.....

## ← Password Checkup

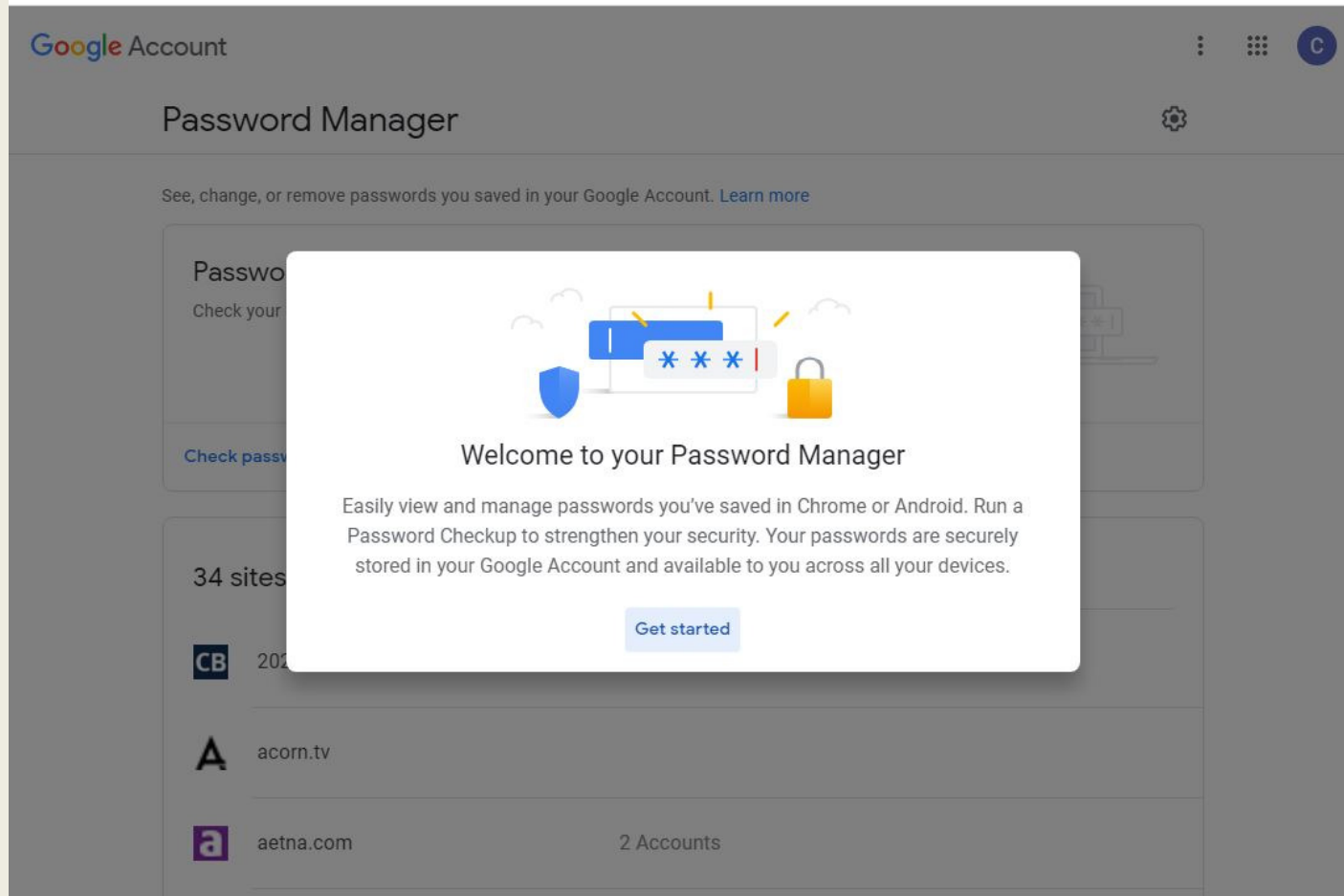


Check the security of passwords you've saved to your Google Account. Learn if they were compromised, see how strong they are and if you've used any more than once. [Learn more](#)

To get started, you'll need to verify it's you.

[Check passwords](#)

# Google Password Manager



# How Chrome saves passwords

## How Chrome saves and syncs passwords

How Chrome saves your passwords depends on whether you want to store and use them across devices. When synced, passwords can be used on Chrome on all your devices, and across some apps on your Android devices.

When [sync is turned on](#) for passwords in Chrome, your [passwords are saved to your Google Account](#).

Otherwise, your passwords are only stored on Chrome on your computer.



# Check Your Passwords

## Password Manager

20 sites and apps

 Search passwords



aaa.com



actblue.com

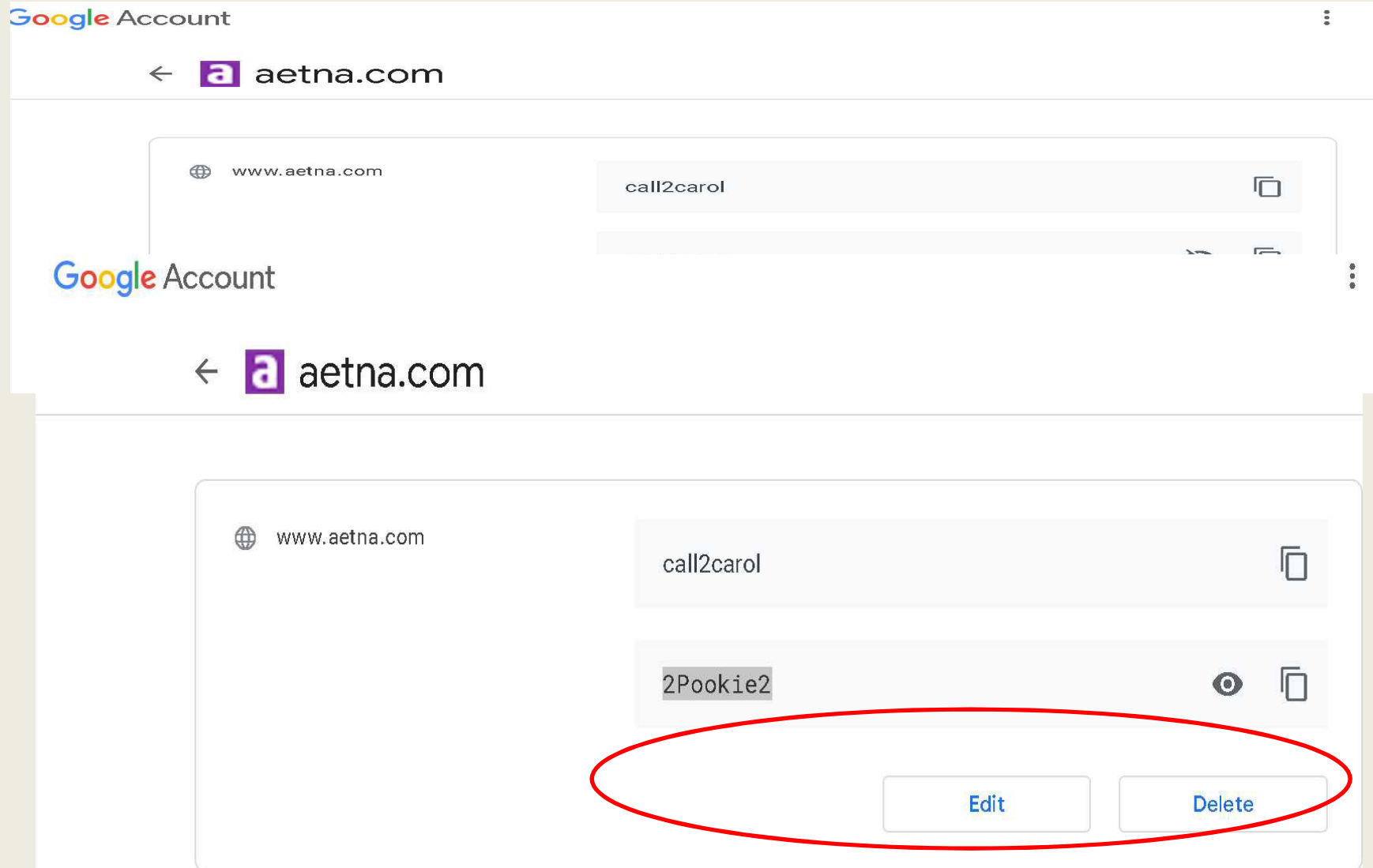


aetna.com



amazon.com

# Check and see your passwords



## Password Manager



See, change, or remove passwords you saved in your Google Account. [Learn more](#)

### Password Checkup

Check your saved passwords to strengthen your security.



[Check passwords](#)

20 sites and apps

 Search passwords

## ← Password Checkup



We analyzed your saved passwords and found the following issues



No compromised passwords



19 reused passwords

Create unique passwords



25 accounts using a weak password

Create strong passwords



# Long Password Generator

## Correct Horse Battery Staple

Secure password generator to help keep you safer online

Sugar-Mark-Sit-Red-Congratulation-2

Length:

35

Min words

Min Length  (including the separator)

Separator  (Multiple values will be used randomly, try \* & ^ % \$ # ! )

- ☒ Make First Letter Uppercase
- ☒ Append random number to the end (0 - 9)
- ☐ Save these options.\*

<https://correcthorsebatterystaple.net/>



We analyzed your saved passwords and found the following issues

## ← Password Checkup



No compromised passwords



19 reused passwords



### Create unique passwords

To best protect yourself, use a unique password on each site or app. If someone gets your reused password, they can use it to sign into your other accounts, as well.

The same password is used on 11 sites and apps



Tunity : Hear any muted TV  
calling2carol@gmail.com



Change password



Wish - Shopping Made Fun  
calling2carol@gmail.com



Change password



broward.org  
calling2carol@gmail.com



Change password



We analyzed your saved passwords and found the following issues

## ← Password Checkup



No compromised passwords



19 reused passwords



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The same password is used on 11 sites and apps



Tunity : Hear any muted TV  
calling2carol@gmail.com



Change password



Wish - Shopping Made Fun  
calling2carol@gmail.com



Change password



broward.org  
calling2carol@gmail.com



Change password



View password

Update saved password

Delete password

We analyzed your saved passwords and found the following issues

← Password Checkup



No compromised passwords



19 reused passwords



### Create unique passwords

To best protect yourself, use a unique password for each account. If someone gets your reused password, they can use it to access your other accounts.

Open your **Tunity : Hear any muted TV** app and change your password there. Once you're done, you can update it in your Google Account.

OK

### The same password



Tunity : Hear any muted TV  
calling2carol@gmail.com



Change password



Wish - Shopping Made Fun  
calling2carol@gmail.com



Change password



broward.org  
calling2carol@gmail.com



Update results



Change password



## ← Password Checkup

**19 reused passwords**

Create unique passwords

**25 accounts using a weak password**

### Create strong passwords

Weak passwords are easy for other people or computers to guess. Make sure you are using strong passwords. [See more security tips.](#)



aetna.com

[Change password](#)aetna.com  
Call2carol[Change password](#)amazon.com  
calling2carol@gmail.com[Change password](#)

arise.com


[Change password](#)[Update results](#)

# Sign in Again at Site



[Contact us](#)

[Espanol](#)

[Search](#) 

[Explore Aetna sites](#) 

[Shop for a plan](#)

[Member Support](#)

[Login](#)

**You don't join us,  
we join you**

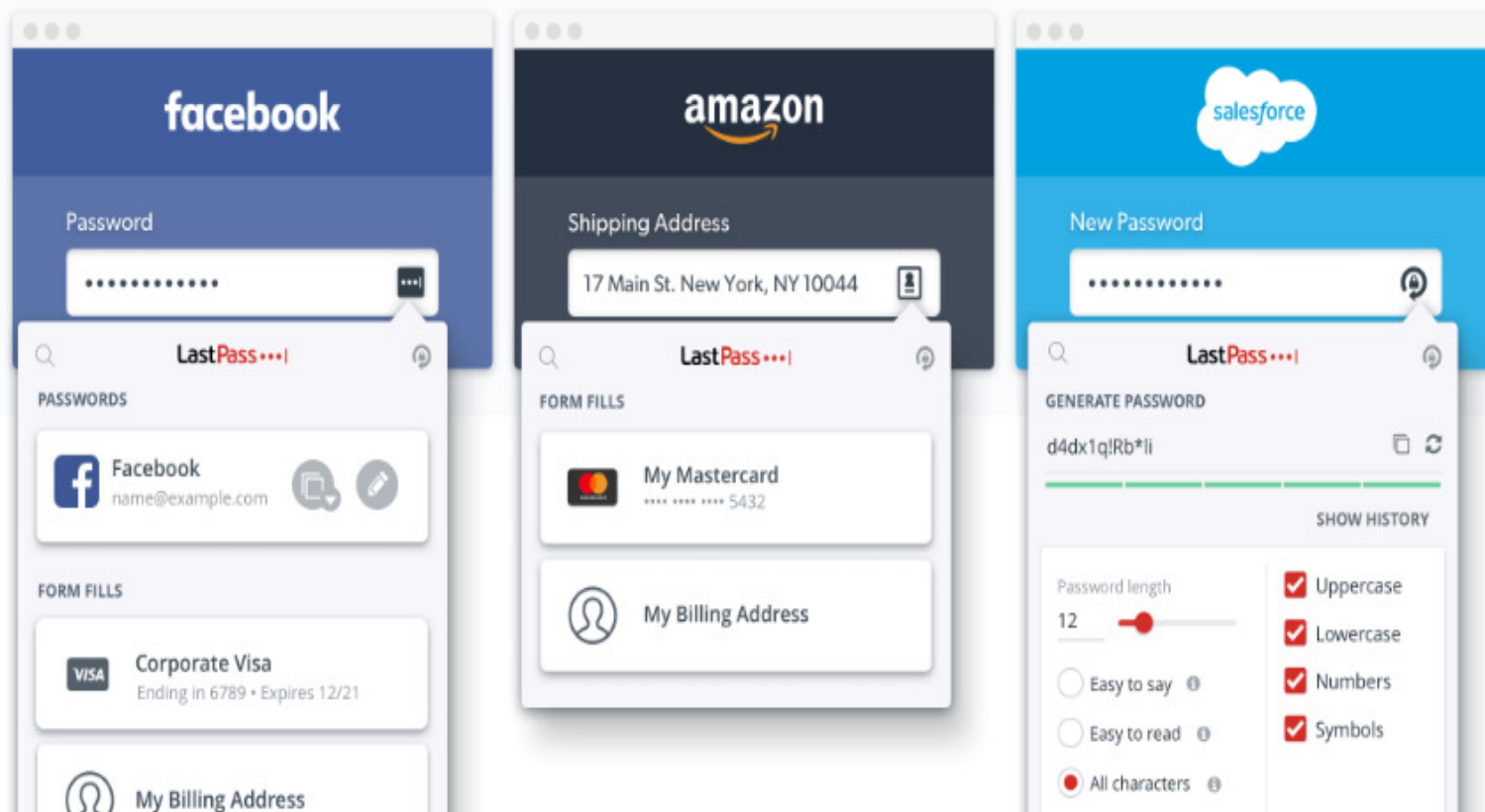


# Simplify your online life.

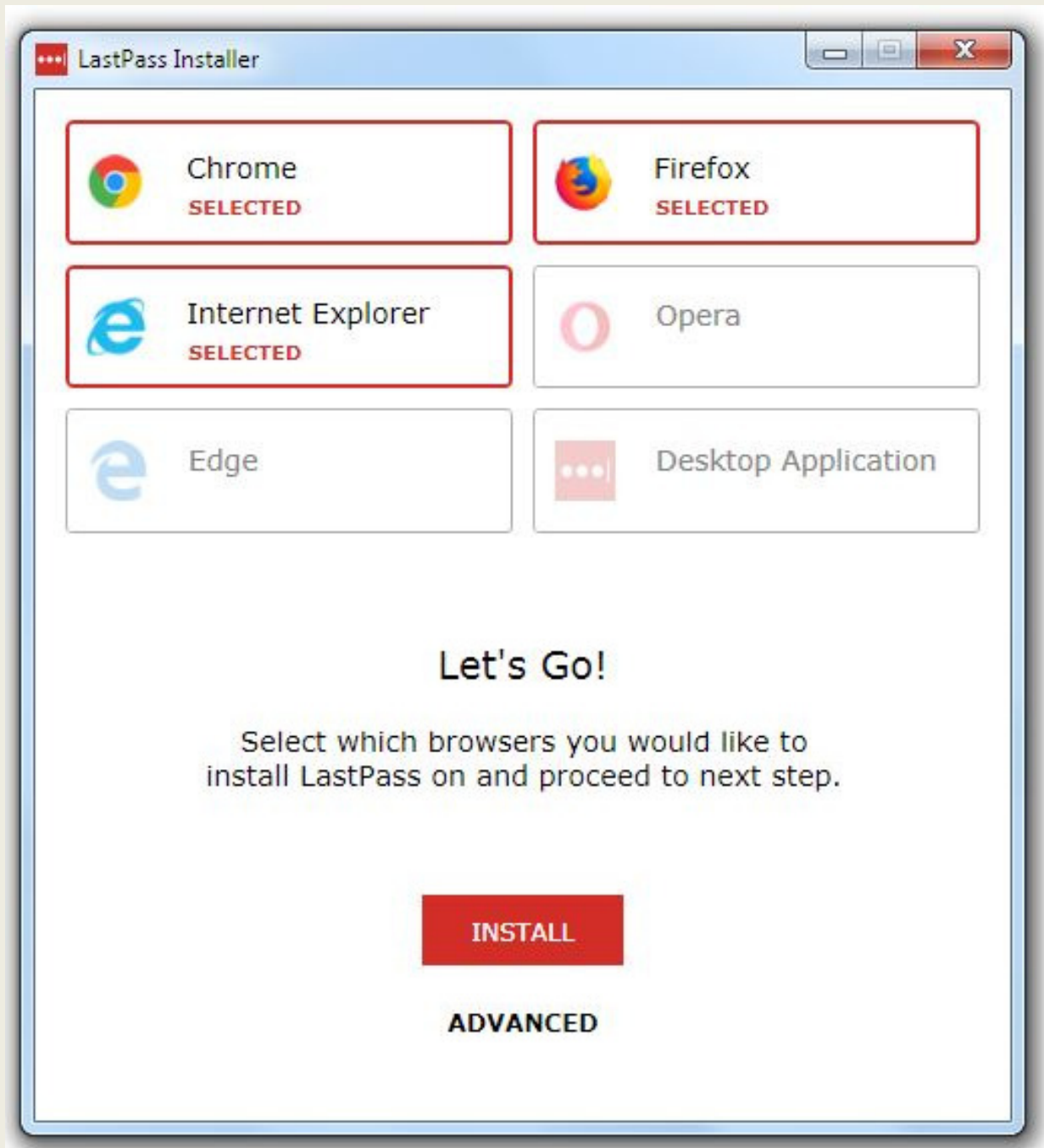
LastPass remembers all your passwords across every device for free!

Get LastPass Free

[Upgrade to Premium for Just \\$3/Month >](#)












# LastPass



## Secure Your Passwords

LastPass found the following passwords stored insecurely on your computer. Importing these passwords into your LastPass vault helps secure them. Once they have been safely imported into LastPass, we'll delete them from your computer. Remember: they will always be available in your LastPass vault!

Source	Website	Username	Password
 Chrome	en-gb.facebook....	call2carol@pacbell.net	*****
 Chrome	accounts.google...	carolhdandyou@gmai...	*****
 Chrome	hollandamerica....	cathy@arboreden.com	*****
 Chrome	timetrade.com	carol@hdandyou.com	*****
 Chrome	emilylevy.com	carolfreedman	*****
 Chrome	wcwclub.com	call2carol@pacbell.net	*****
 Chrome	wcwclass.com	carolfreedman	*****
 Chrome	wpfood2.com	adminstudent	*****
 Chrome	blinkinc.com	call2carol@pacbell.net	*****

☐ Reveal Passwords

Back

No Thanks

Import





← Collapse

🏠 All Items

🔒 Passwords

📄 Notes

👤 Addresses

💳 Payment Cards

🏦 Bank Accounts

📶 Wi-Fi Passwords

Security Challenge

👤 Sharing Center

🛡️ Emergency Access

⚙️ Account Settings

⋮ More Options

LastPass ⋮

🔍 search my vault

Upgrade

👤 calling2carol@g...  
Premium Trial User

Passwords

▼

🔍

🏠

☰

Sort By: Folder (a-z) ▼

(none) (65) ▶

Business (10) ▶

Email (12) ▶

Entertainment (2) ▶

Finance (9) ▶

News/Reference (1) ▶

Productivity Tools (6) ▶

Shopping (12) ▶

Social (3) ▶

Telecom (2) ▶

+

Collapse

All Items

Passwords

Notes

Addresses

Payment Cards

Bank Accounts

Wi-Fi Passwords

Security Challenge

Sharing Center

Emergency Access

Account Settings

More Options

LastPass

search my vault

Upgrade

calling2carol@g...  
Premium Trial User


Passwords

Sort By: Folder (a-z)

(none) (65)

Business (10)

☐




jacquielawson.com

calling2carol@gmail.c...

Last used  
Never

☐




reg.usps.com

USPS4Carol2

Last used  
Never

☐




squareup.com

voxxlifecarolf@gmail.c...

Last used  
Never

☐




squareup.com (2)

socksbycarol@gmail.c...

Last used  
Never

☐




sso.godaddy.com

callcarol@attractingby...

Last used  
Never

☐




sso.godaddy.com (2)

10003965

Last used  
Never


☐



ups.com

Last used  
Never

☐



vistaprint.com

call2carol@pacbell.net

Last used  
Never

Collapse

All Items

Passwords

Notes

Addresses

Payment Cards

Bank Accounts

Wi-Fi Passwords

Security Challenge

Sharing Center

Emergency Access

Account Settings

More Options

LastPass

search my vault

Upgrade

calling2carol@g...

Premium Trial User

Passwords

1 items selected


Actions

Sort By: Folder (a-z)

(none) (65)


Business (10)

☐



jacq  
callin


☒



reg.usps.com  
USPS4Carol2

Last used  
Never


☐



squareup.com  
voxxlifecarolf@gmail.c...

Last used  
Never


☐



squareup.com (2)  
socksbycarol@gmail.c...

Last used  
Never


☐



sso.godaddy.com  
callcarol@attractingby...

Last used  
Never


☐



sso.godaddy.com (2)  
10003965

Last used  
Never


☐



ups.com

Last used  
Never

☐



vistaprint.com  
call2carol@pacbell.net

Last used  
Never

Edit

Delete

Share

Clone

Move to Folder

Go to URL

+



## Sign In To Your Account

Already have an account?

**Enter Your Username and Password** ⓘ

\* indicates a required field

\* Username

USPS4Carol2

\* Password

.....

**Sign In**

Forgot your username? ⓘ

Forgot your password? ⓘ

## New to USPS.com?

**Create a USPS.com Account to...**

- print shipping labels.
- request a Package Pickup.
- buy stamps and shop.
- manage PO boxes.
- print custom forms online.
- file domestic claims.
- set a preferred language.

**Sign Up Now**



## Edit password



URL:

Name:

Folder:

Username:



Site password:



Notes:



► Advanced Settings:



Cancel

Save



## Your connection is not private

Attackers might be trying to steal your information from **www.lastpass.sjv.io** (for example, passwords, messages, or credit cards). [Learn more](#)

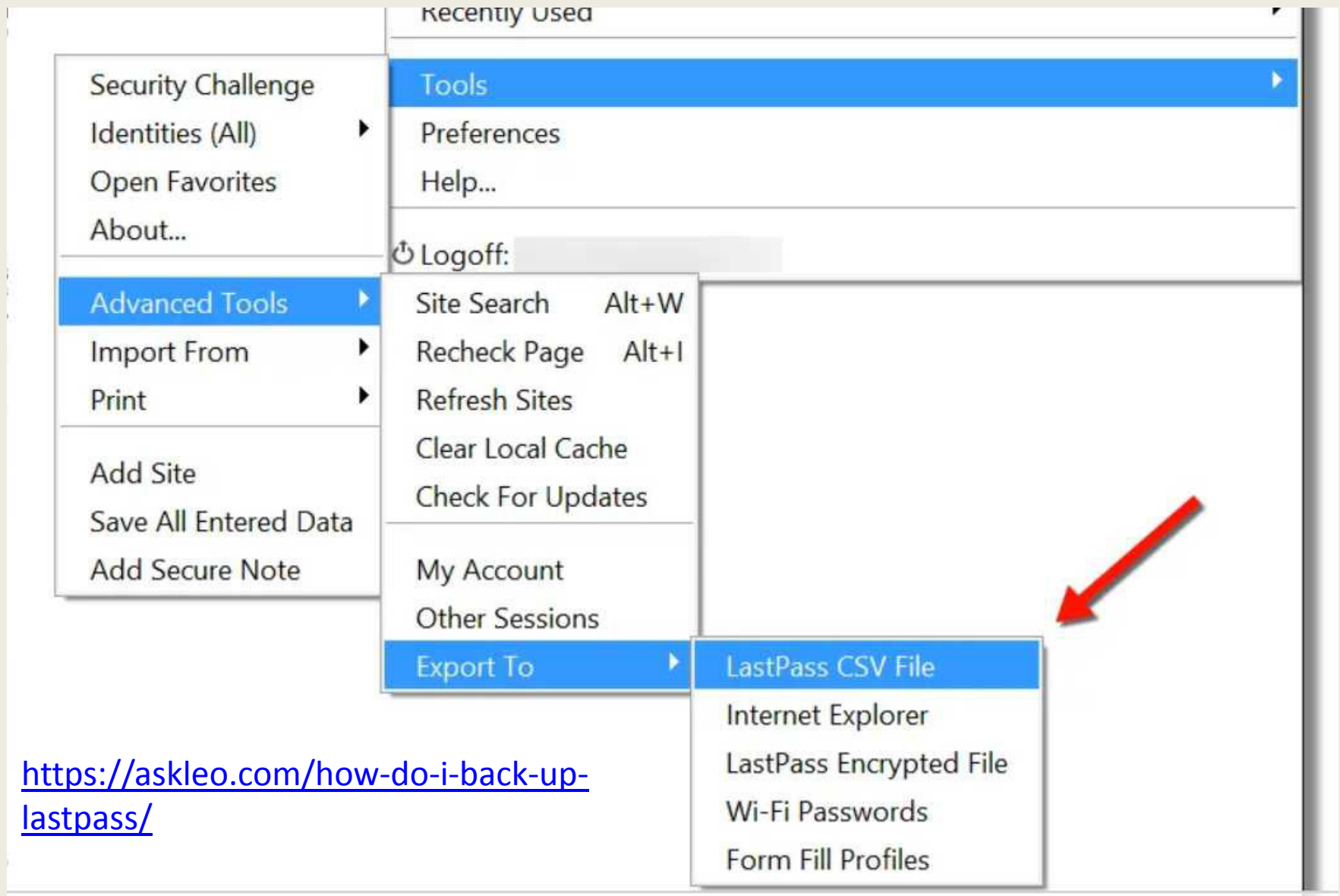
NET::ERR\_CERT\_COMMON\_NAME\_INVALID

- ☐ Help improve Chrome security by sending [URLs of some pages you visit](#), [limited system information](#), and [some page content](#) to Google. [Privacy policy](#)

Advanced

Back to safety

# LastPass Passwords Export





## PASSWORD MANAGERS COMPARED

	 dashlane	 LastPass	 KeePass	 keeper	 1Password	 Sticky Password	 True Key
PRICE	\$40/YEAR	\$12/YEAR	FREE	\$30/YEAR	\$48/YEAR	\$30/YEAR, \$150 LIFETIME	\$20/YEAR
PLATFORMS	WINDOWS, MAC, IOS, ANDROID, watchOS	WINDOWS, MAC, IOS, ANDROID, watchOS, LINUX	WINDOWS, MAC, IOS, ANDROID, LINUX	WINDOWS, MAC, IOS, ANDROID, LINUX, KINDLE, BLACKBERRY	WINDOWS, MAC, IOS, ANDROID	WINDOWS, MAC, IOS, ANDROID, BLACKBERRY, KINDLE, NOKIA X	WINDOWS, MAC, IOS, ANDROID
FREE-VERSION LIMITATIONS	SINGLE DEVICE	NO PASSWORD SHARING, LIMITED 2FA	N/A	SINGLE DEVICE	SINGLE MOBILE DEVICE	SINGLE DEVICE	LIMITED TO 15 STORED CREDENTIALS
TWO-FACTOR AUTHENTICATION	YES	YES	YES	YES	NO	YES	YES
FORM FILLING	YES	YES	NO	NO	YES	YES	NO
DESKTOP BROWSER PLUGINS	CHROME, IE, FIREFOX, SAFARI	CHROME, IE, FIREFOX, EDGE, SAFARI, OPERA	NONE	CHROME, IE, FIREFOX, SAFARI	CHROME, IE, FIREFOX, SAFARI	CHROME, IE, FIREFOX, SAFARI, OPERA	CHROME, IE, FIREFOX
MOBILE APP PIN UNLOCK	YES	YES	DEPENDS ON VERSION	NO	YES	YES	NO
FINGERPRINT LOGIN	YES	YES	DEPENDS ON VERSION	IOS, ANDROID	IOS, ANDROID	IOS, ANDROID	YES



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# Avast Passwords for Windows

All your passwords. All your credit card numbers. Always with you. Simplify your online life with the free password manager.

**FREE DOWNLOAD**  
with Free Antivirus

Also on [Android](#), [iPhone](#), [Mac](#)

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I A

# RoboForm

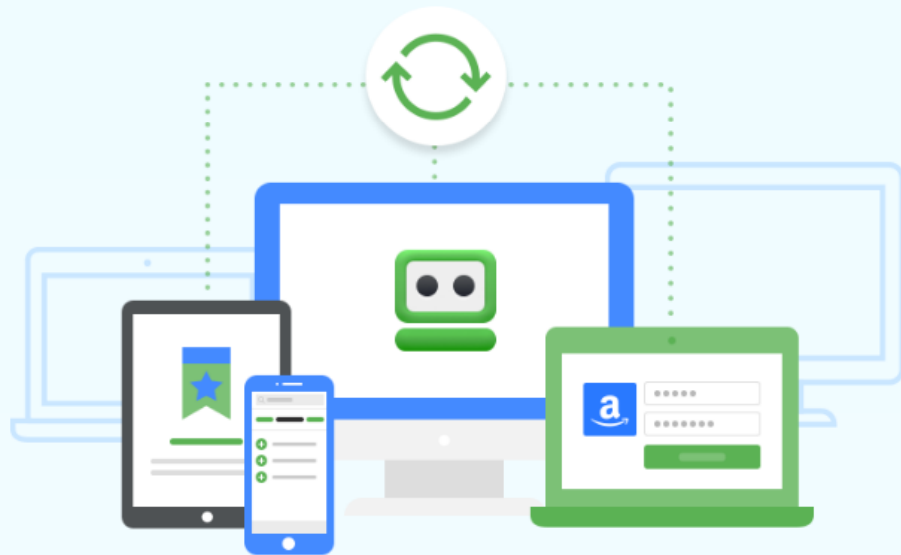
[Features](#)[Personal](#)[For Business](#)[Support](#)[Download](#)[Buy Now](#)[Log In](#)

A special offer from Tech Radar. Save 30% on RoboForm Everywhere!

## RoboForm Everywhere

Get syncing across all devices,  
secure sharing,  
premium support,  
and more.

Get This Deal!



# What did you learn?



- Ways someone can get my password
  - Thru a virus
  - Phishing
  - Hacking my network or email
  - Watching my signon
- I'm safe because
  - I have antivirus protection
  - I never click bad links
  - I use letters, numbers and symbols
- Best passwords are
  - Long-at least 12 characters
  - Random phrases I can remember
  - Just what the site asks for
  - Same for key sites
- My first steps should be
  - Buy a password manager
  - Change all my passwords
  - Check my passwords
- Pws are most imp't for
  - Places you spend /use money
  - Your email
  - Your social media
- Most password mgrs
  - Work on all OSs
  - Work on unlimited devices
  - Are free
  - Synch themselves
  - Will generate pws