

BitWarden Password Manager -101

Jay Shah, jyanu@gmail.com

+1-732-410-6163

North, N- 408

10-4

We have to relieve the pressure on his skull. So I'm going to go in and take out about two dozen passwords.



Weakest link in the Security Chain

Humans

Basic protection:

- Passcode
- Username
- Password

Enhance protection

- Passphrase
- 2FA (2 factor authentication)
- Passkey



Modern Password Security Challenges:


Computing Power: Modern GPUs (Graphical Processing Unit) can attempt billions of password combinations per second (wait till Quantum Computer became available!)

Simple Passwords & Reuse: Users often use simple passwords and reuse across multiple services

Data Breaches: Large-scale breaches expose millions of passwords, helping attackers understand common patterns

Social Engineering: Attackers can gather personal information to inform password guessing

Predictable Patterns: Users often follow similar patterns when creating "complex" passwords



Strong password - Longer & Random Combination of Upper & Lower Letters, Numbers, and Special Characters

- Your password should be at least **14+** characters long and uses a mix of characters: **at least** one lowercase letter, one uppercase letter, one number, and one special character (for example, %, ^, *, &, @, ~, etc.)
- You should **avoid using any phrases or terms that are significant to you** (and are therefore easy to guess)
- A strong password **does not connect to its username** (always treat the two as separate entities)



Weakest link in the Security Chain

- Login requires: Username and Password. Unfortunately, we use the
 - We use simple, short, easy to remember passwords
 - We use the same password on more than one website
 - same username on more than one website (usually our email)
 - Why? Because I can not remember (I have 400+ logins)!



Weakest link in the Security Chain

- So, if the hacker breaks in one website and catches your credentials then she/he can use that on other websites knowing human weakness.

How about this password?

Good or Bad?

It is long and complex!

- !1qazxsw2@#3edcvfr4\$%5tg
bnhy6^&7ujm,<ki8*(9ol.>/?;
p0)

PBKDF2-SHA256	Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
		4	Instantly	Instantly	2 secs	4 secs
5	Instantly	3 secs	2 mins	4 mins	12 mins	
6	Instantly	1 min	1 hour	4 hours	15 hours	
GPU: RTX 3090	7	3 secs	35 mins	3 days	2 weeks	2 months
8	26 secs	15 hours	5 months	2 years	10 years	
9	4 mins	2 weeks	23 years	100 years	800 years	
10	44 mins	1 year	1k years	7k years	61k years	
11	7 hours	31 years	63k years	435k years	5m years	
12	3 days	800 years	3m years	27m years	363m years	
13	1 month	21k years	170m years	2bn years	28bn years	
14	10 months	539k years	9bn years	104bn years	2tn years	
15	8 years	14m years	460bn years	6tn years	166tn years	
16	84 years	365m years	24tn years	399 tn years	13 qdn years	
17	800 years	9bn years	1qdn years	25 qdn years	983 qdn years	
18	8k years	246bn years	65 qdn years	2 qntn yrs	76qntn years	

Source: hivesystems.io

Now we have more powerful GPUs from Nvidia than RTX 3090 - used for AI work!!!



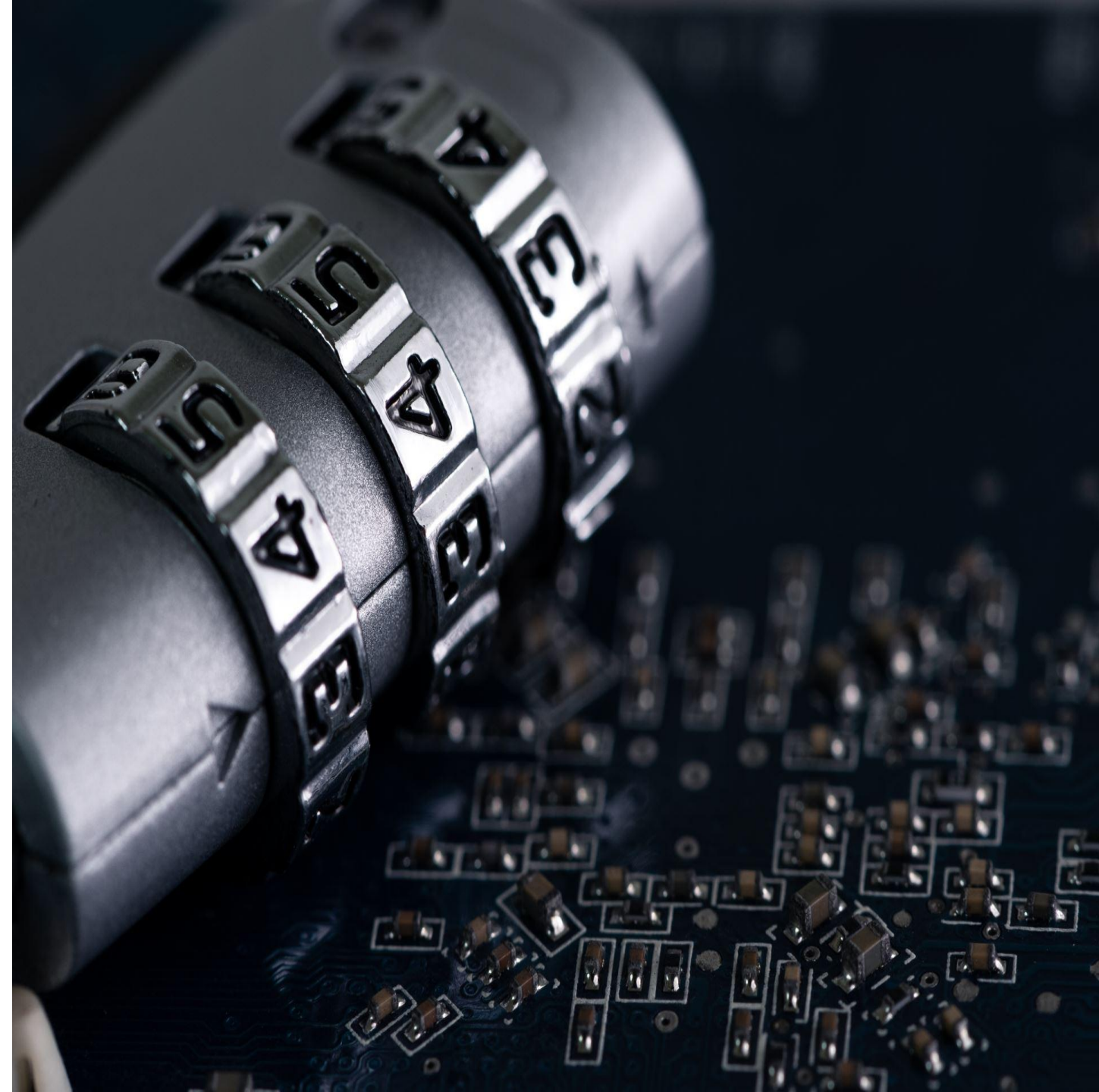
Security often involves a tradeoff between protection and convenience, so ultimately, it's up to you!

A law of the universe: more convenient = less secure.



Test your Password Strength

- **Password Monster** - <https://www.passwordmonster.com/>
- **Password Meter** - <https://passwordmeter.com/>
- **Proton Password generator** - <https://proton.me/pass/password-generator>



Let's Create a Password From Proton Password Manager

[Password generator - Create strong,
random passwords | Proton](#)

Write it down, memorize it!

**Copy and paste it in Word pad, Notes,
Word, Excel, Page – Whatever!**



- For a strong password you need Longer & Random Combination of Upper & Lower Letters, Numbers, and Special Characters!
- You can create it, but can you remember it?
- Can you type it without making mistake every time on ALL websites?
- **If not, then you need a Password Manager!**
- Why use a password manager - <https://vimeo.com/579574586>



Three Types of Password Managers (there are 32+ Password Managers)

1. **On your device** (e.g., KeyPassXC)
– data remains on your device, you need to be a techie!
2. **Browser based** (Chrome, Firefox, Brave, etc.) – **Do NOT use them**
3. **Cloud Based** – BitWarden, Proton, Dashlane, 1password managers etc.



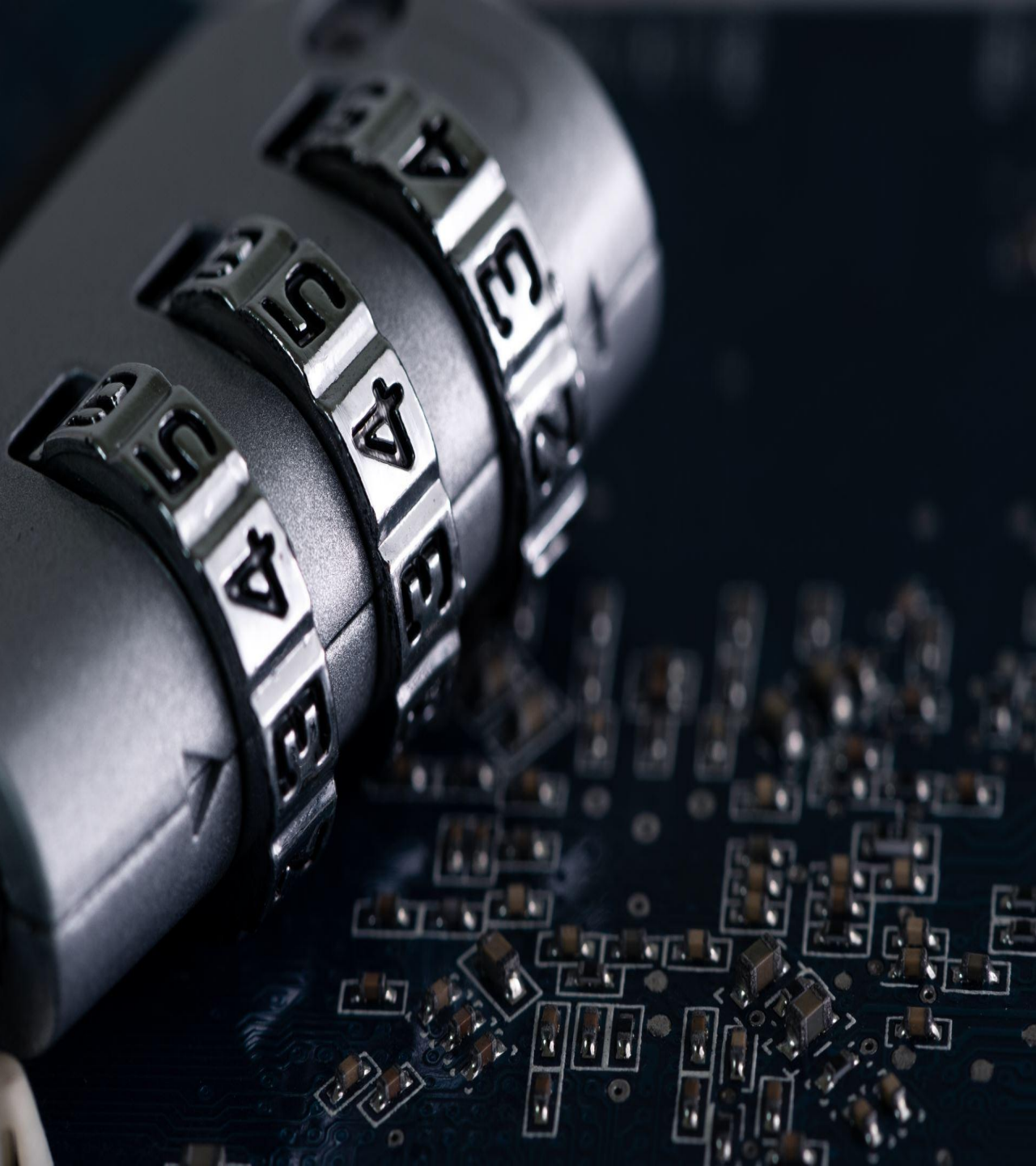
Cloud based (1Password, Dashlane, **BitWarden**, Proton, LastPass,...)

- Data is in the cloud. Some you can self host on your server.
- Multi Platform (Windows, Mac, iOS, Android, Linux)
- Generates strong ,complex passwords or passphrase.
- Creates 2FA and Passkey also, in the paid version (\$15/year)
- Allows to create relay email addresses for username if the website wants email as the user name.
- That way you do not expose your real email.
- It fills in your login/password – **no typing**
- You need to remember **ONLY ONE** password – Master Password
- Master password is separate than your device or browser password.
- **Caveat:** If you forget the Master Password then...!!



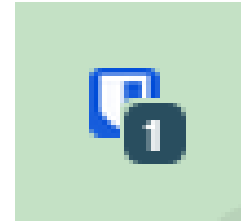
**From where to download BitWarden for
your Device and Browser**

<https://bitwarden.com/download/>



There are Three BitWarden installation

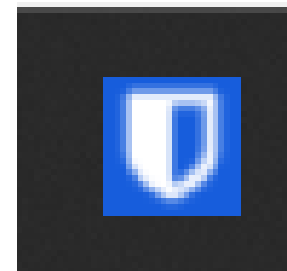
1. Browser Extension Chrome, Edge, Firefox etc.)



2. Web app:



3. On your device -



Live Demo: With BitWarden Extension

- Black means you must give your email and master word -



- Padlock means you need to give only the Master Password



- Notice the number on the extension



- Number indicates how many login credentials do I have in the BitWarden Vault.

- "Auto Fill" the website credentials

Live Demo: With BitWarden Extension

- Five Items to Store in The vault:
 - Favorites
 - Login Credentials - Website URL, Username, Password, and your private notes.
 - Card - Your Credit Card ad other card info
 - Identity - your info to fill in the website forms
 - Note - Very useful - no need for remember things like your passport number, TV Serial number, Warrant info etc.
 - SSH Key
- It also provides Folders for related items

Can I Import a list of passwords vs. one at a time?

YES!

But it must be in a specific .CSV format (not .XLS or .XLSX)

You may not know but your browser (Chrome, Firefox, Edge, Brave,....) may be saving your passwords!

If so, you can import them one swoop. **CAVEAT -WATCH OUT FOR DUPLICATES!**

If you changed the password for a given site then this list many have two or more password for the same website - so you must know which is correct; keep that entry and delete other duplicate entries, otherwise you would have more than one entry for the same website.

Complete security is a fallacy!

- **AT&T data breach hits nine million customer accounts.**
- <https://www.androidcentral.com/phones/carriers/atandt-data-breach-affects-9-million-customers>
- A third-party vendor had a data breach
 - Phone numbers, wireless phone numbers, and email addresses were exposed.
- In some instances, the hack also impacted customer information such as monthly payment amount, past due amount, rate plan name, and monthly charges and/or minutes used.
- Breach did **not** include credit card information,

Complete security is a fallacy!

- T-Mobile suffers yet another massive data breach affecting 37 million accounts
- <https://www.androidcentral.com/phones/carriers/t-mobile-2023-data-breach>
- Obtained name, billing address, email, phone number, date of birth, and the number of lines on an account.
- But **not** social security numbers, driver's license/ID numbers, financial information, and PINs/passwords.

Complete security is a fallacy!

- LastPass Password Manager was breached:
 - Personal information was accessed
 - Entire database was stolen
 - Some master passwords were exposed
 - Credit Card info was **Not** Exposed.
- Password managers can't help in such a situation!
- All one can do is change the password once the news hits the media.
- This is also why relay mail vs. real email can be good protection!

BitWarden Learning - Courses

Bit Warden Courses - <https://bitwarden.com/help/courses/>

BitWarden 101: User Walkthrough - <https://www.youtube.com/playlist?list=PL-IZTwAxWO4VKISOqPdMBXAtKBAu0gd4>

BitWarden Training videos

- BitWarden Overview - <https://vimeo.com/686853203>
- BitWarden Password Manager: Importing from other platforms - <https://vimeo.com/791208700>
- Setting up the BitWarden Browser Extension - <https://vimeo.com/796401125>
- BitWarden 1- How to Use Browser Extensions and Mobile Apps - <https://vimeo.com/744576000>
- Download BitWarden - <https://vimeo.com/767376335>
- Organizing your vault.mp4 - <https://vimeo.com/795228848>
- How to access your vault on a public computer - <https://vimeo.com/772248826>
- Signing Up for New Websites - <https://vimeo.com/740474990>
- How to Send msg Securely: BitWarden Send: Protected One-to-One Information Sharing <https://vimeo.com/539797097>
- How to disable Firefox's built-in password manager - <https://vimeo.com/761123650>
- How to remove saved passwords from various browsers <https://www.privateinternetaccess.com/blog/how-to-delete-your-saved-passwords-on-every-browser/>

BitWarden Training videos

- BitWarden Beginners Guide [Updated] (37 Minutes) - <https://www.youtube.com/watch?v=PdB7KCjrFT4>
- Beginner's Guide Video on YouTube (34 minutes) <https://www.youtube.com/watch?v=30Qqleb1Pu4>
- Help - <https://bitwarden.com/help/>
- All Videos on Vimeo Channel - <https://vimeo.com/bitwarden>
- Using the Browser Extension and Mobile App v2 - <https://vimeo.com/749273713>
- Video - 4 Minutes long - How to switch from LastPass to BitWarden - Hands-On Tutorial
 - <https://www.youtube.com/watch?v=MIqrGpDCMGE>
- Webcast 10 Tips to Choosing a Password Manager for Your Team - <https://vimeo.com/432688741>

Next Steps:



Attend BitWarden - 101 July 8, 2026, and



BitWarden -102 class on July 22, 2026



If you would like to get started now, then send me an email at wvccqa@gmail.com or call me at 732-410-6163 after you have installed TeamViewer QuickSupport



[TeamViewer QuickSupport | TeamViewer](#)



Also keep an eye in the Weekly Insider for hands-on training



I will be more than happy to help you become little more secure!



Thank you!