Data Breach Exploration and Password Cracking

– Ajitesh Parihar, COSC, Okanagan College

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What is a Data Breach?

Are you a victim? - haveibeenpwned

Where are these leaks posted?

Which data breaches can we find?

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Using this data for crime
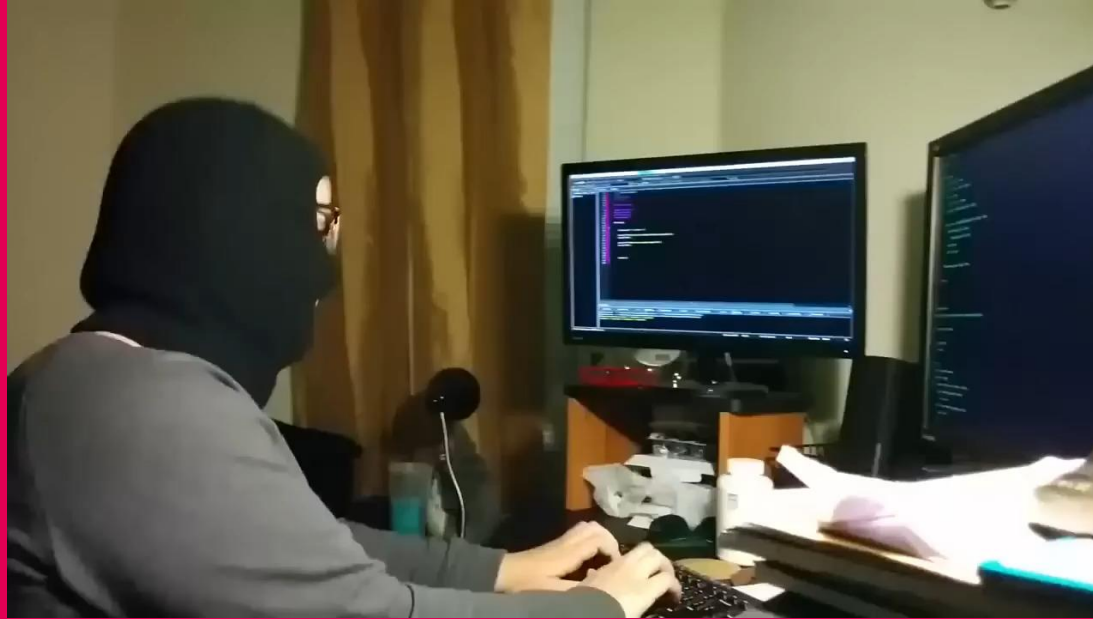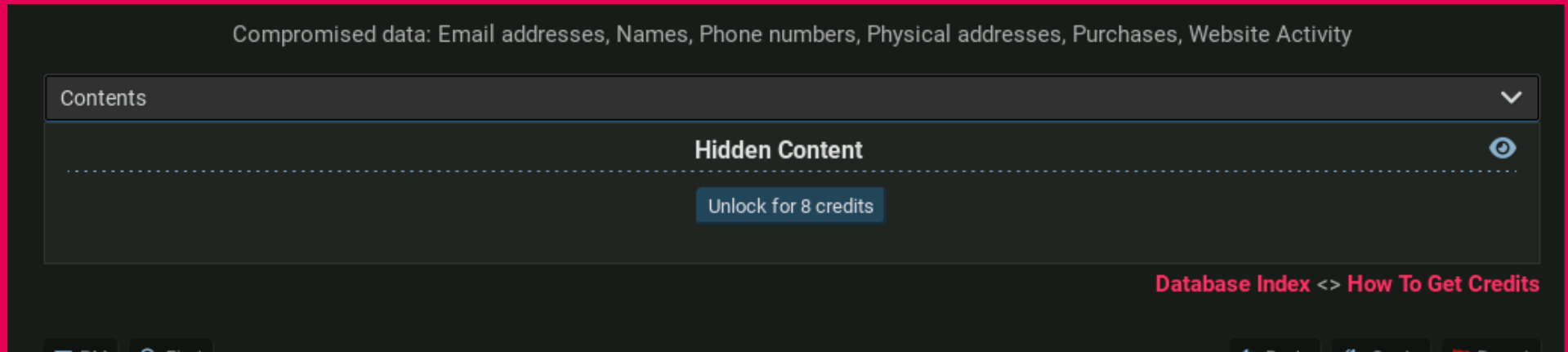
How much does this data cost?

Compromised data: Email addresses, Names, Phone numbers, Physical addresses, Purchases, Website Activity
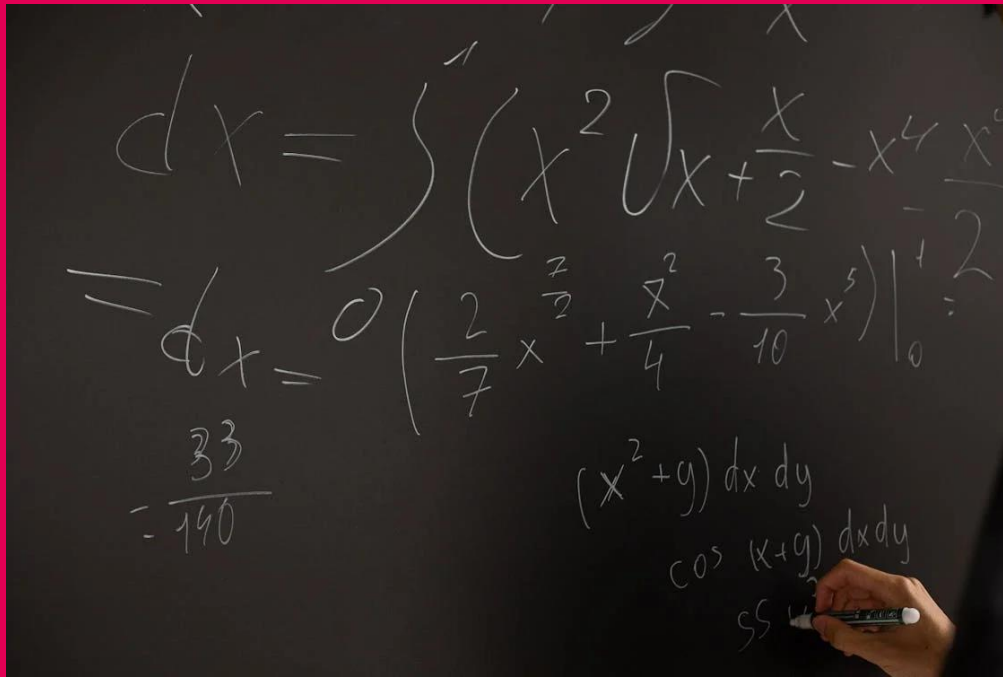
Contents

Hidden Content

Unlock for 8 credits

Database Index <> How To Get Credits

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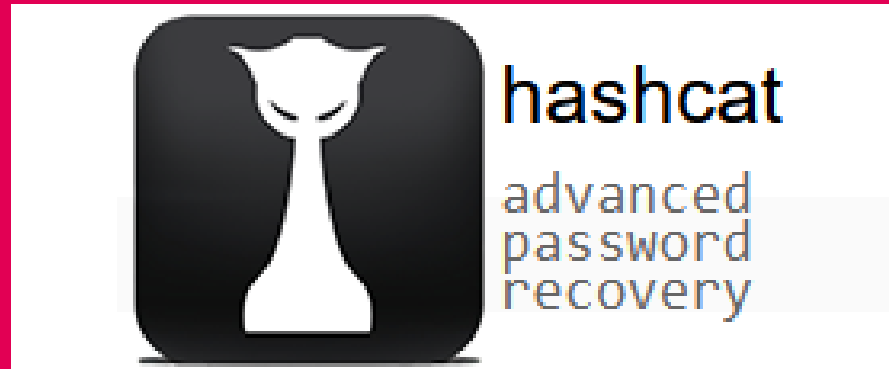# Hashing Passwords to Deter Account Stealing

Example of what a hashed password looks like

```
research@pop-os:~$ sha256sum --help
Usage: sha256sum [OPTION]... [FILE]...
Print or check SHA256 (256-bit) checksums.

With no FILE, or when FILE is -, read standard input.

  -b, --binary         read in binary mode
  -c, --check          read SHA256 sums from the FILEs and check them
      --tag            create a BSD-style checksum
  -t, --text           read in text mode (default)
  -z, --zero           end each output line with NUL, not newline,
                       and disable file name escaping
```

Cracking Passwords using brute force

Why using common passwords is a bad idea: rockyou

What should companies do?

- Follow standard practices

- Conduct regular security analysis

- Use modern hashing algorithms

What can you do?

- Password Managers: KeepassXC
- Multi-factor Authentication: Aegis
- Awareness of attack vectors

Thank you!
Any Questions?

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