This is CS50

passwords

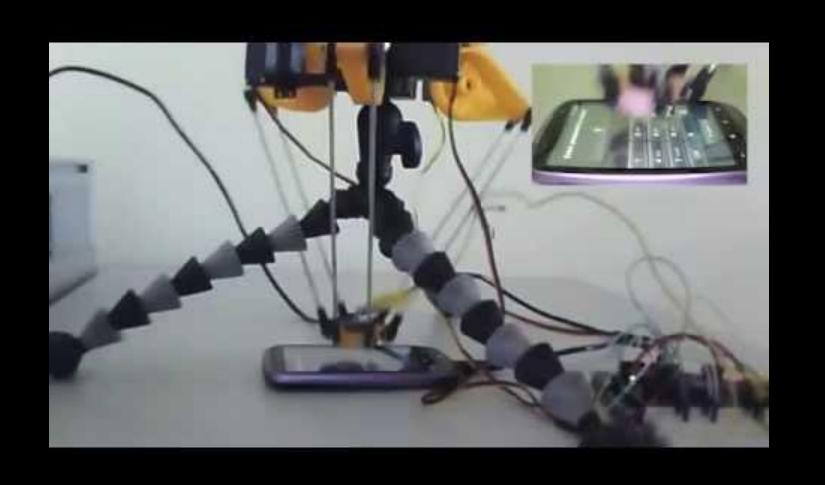
- 123456
- 123456789
- picture1 3.
- 4. password
- 12345678 5. 111111
- 123123

6.

- 12345 8.
- 1234567890 9.
- 10. senha

4-digit passcode

brute-force attacks



$10 \times 10 \times 10 \times 10$

10,000

4-letter passcode

$52 \times 52 \times 52 \times 52$

7,311,616

4-character passcode

$94 \times 94 \times 94 \times 94$

78,074,896

8-character passcode

$94 \times 94 \times 94 \times 94 \times 94 \times 94 \times 94 \times 94$

6,095,689,385,410,816





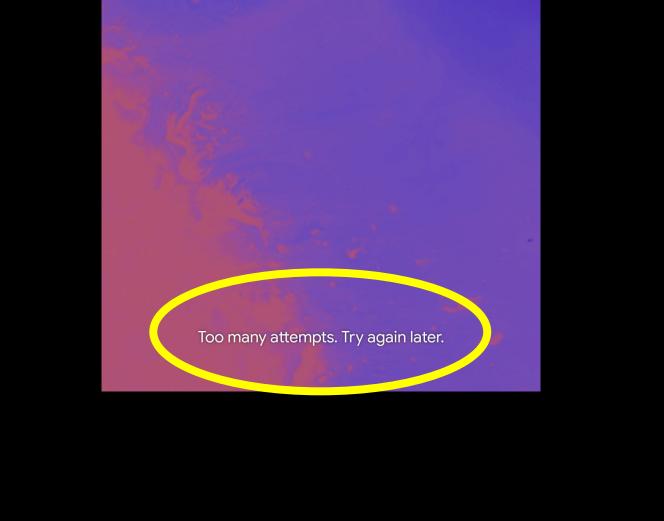


iPhone is disabled try again in 1 minute

Emergency









to continue to Gmail

Email or phone

Forgot email?

Not your computer? Use Guest mode to sign in privately.

Learn more

Create account

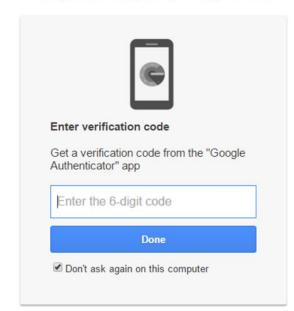
Next

two-factor authentication



2-step Verification

Use your device to sign in to your Google Account.



password managers

- Credential Manager
- Keychain
- 1Password
- LastPass
- ...

email

Confidential mode

Recipients won't have the option to forward, copy, print, or download this email. Learn more

SET EXPIRATION

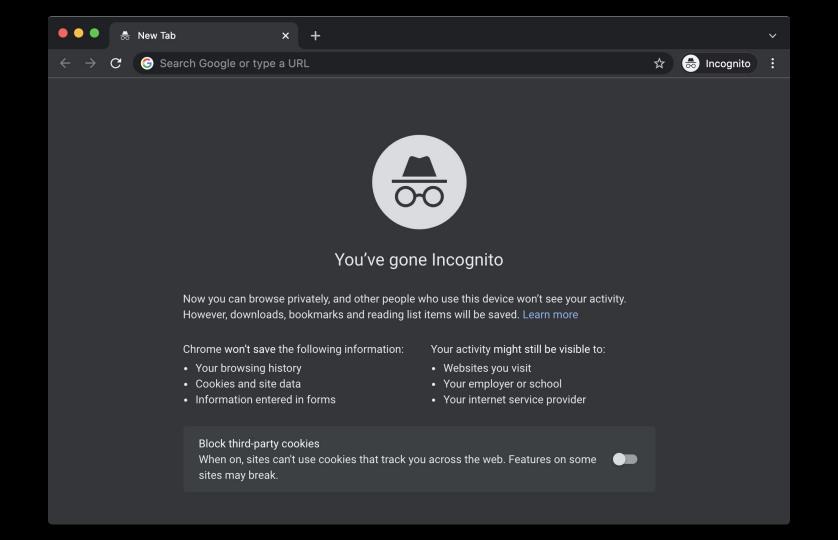
Expires in 1 week Thu, Nov 4, 2021

REQUIRE PASSCODE

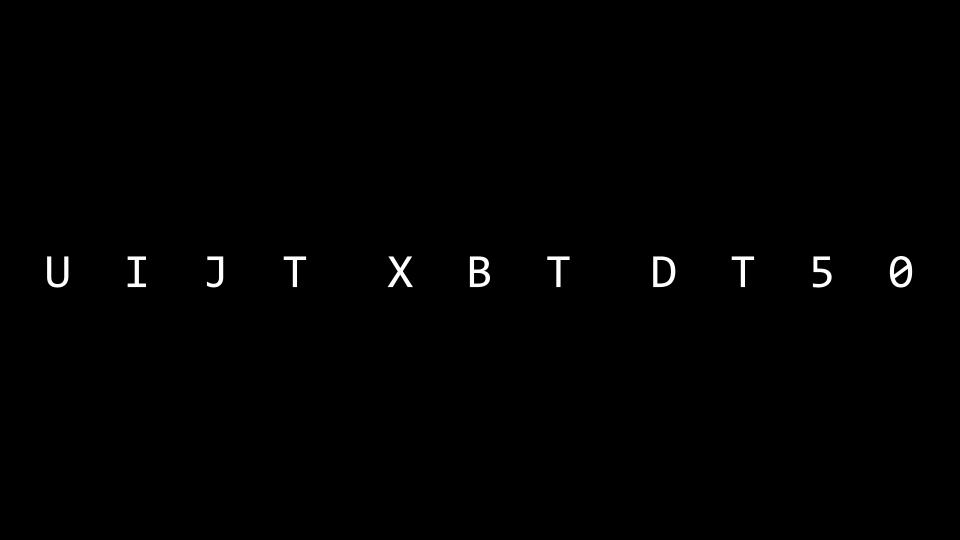
All passcodes will be generated by Google. ?

No SMS passcode

SMS passcode



encryption





https://

end-to-end encryption





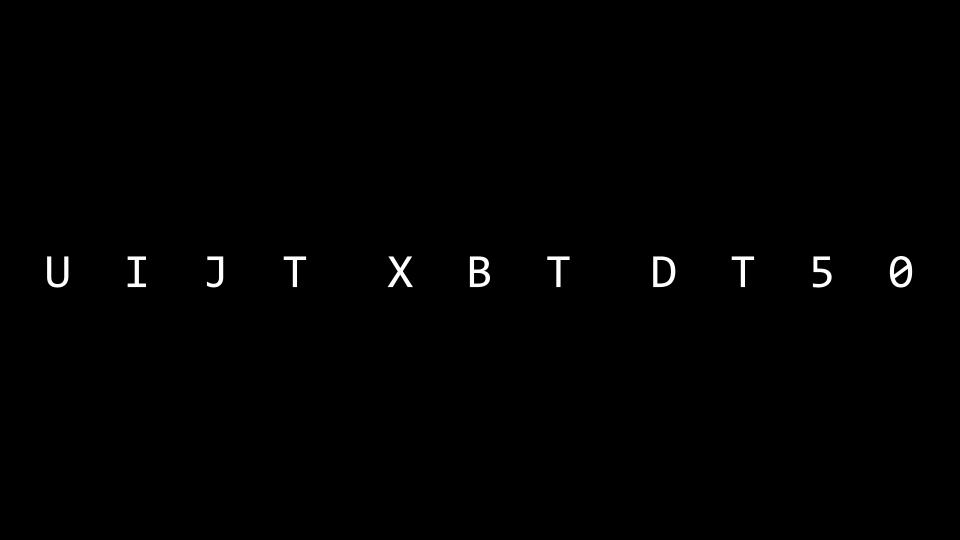
Schedule Meeting

opic
Date & Time
10/29/ 2021 ~ 1:00 PM ~ to 2:00 PM ~ 10/29/ 2021 ~
Recurring meeting Time Zone: Eastern Time (US and Canada) ~
Security
Passcode senha Only users who have the invite link or passcode can join the meeting
Waiting Room Only users admitted by the host can join the meeting
Only authenticated users can join: Sign in to Zoom
ncryption
Enhanced encryption ① End-to-end encryption ①
Several features will be automatically disabled when using end-to-end encryption, including cloud recording and phone/SIP/H.323 dial-in. Learn more

Homework

- 1. Use a password manager
- 2. Use two-factor authentication
- 3. Use (end-to-end) encryption

edx.org/cs50



This was CS50