



What can happen if your password is compromised online?

Password Compromised

If your password is compromised...

- sensitive data exposed
- possibly lead to identity theft



Ever had your account compromised/hacked?

Recent Data Breaches (2021 & 2020)

- Facebook Social Media (533 million, source)
- OneClass online learning (1 million, <u>source</u>)
- Postbank bank (8 million, <u>source</u>)
- Keepnet Labs security (5 billion, <u>source</u>)
- Ehteraz govt. covid tracking (1 million, source)
- Indonesia voter records (2.3 million, source)



As web developers, how can we help prevent data breaches?

Prevent Data Breaches?

- You cannot prevent data breaches
- You can reduce risk of a breach
- Making it harder to crack passwords can help



What can we use to improve password security?

Hash Passwords

- Use a hashing algorithm to "scramble" passwords.
- Add random data to the hash to make it unique
- bcrypt is a widely used npm package for hashing passwords
- hashing makes it computationally expensive to crack passwords

Bcrypt Documentation

Read How to Safely Store a Password by Coda Hale

