The missing art of securing data

-BY

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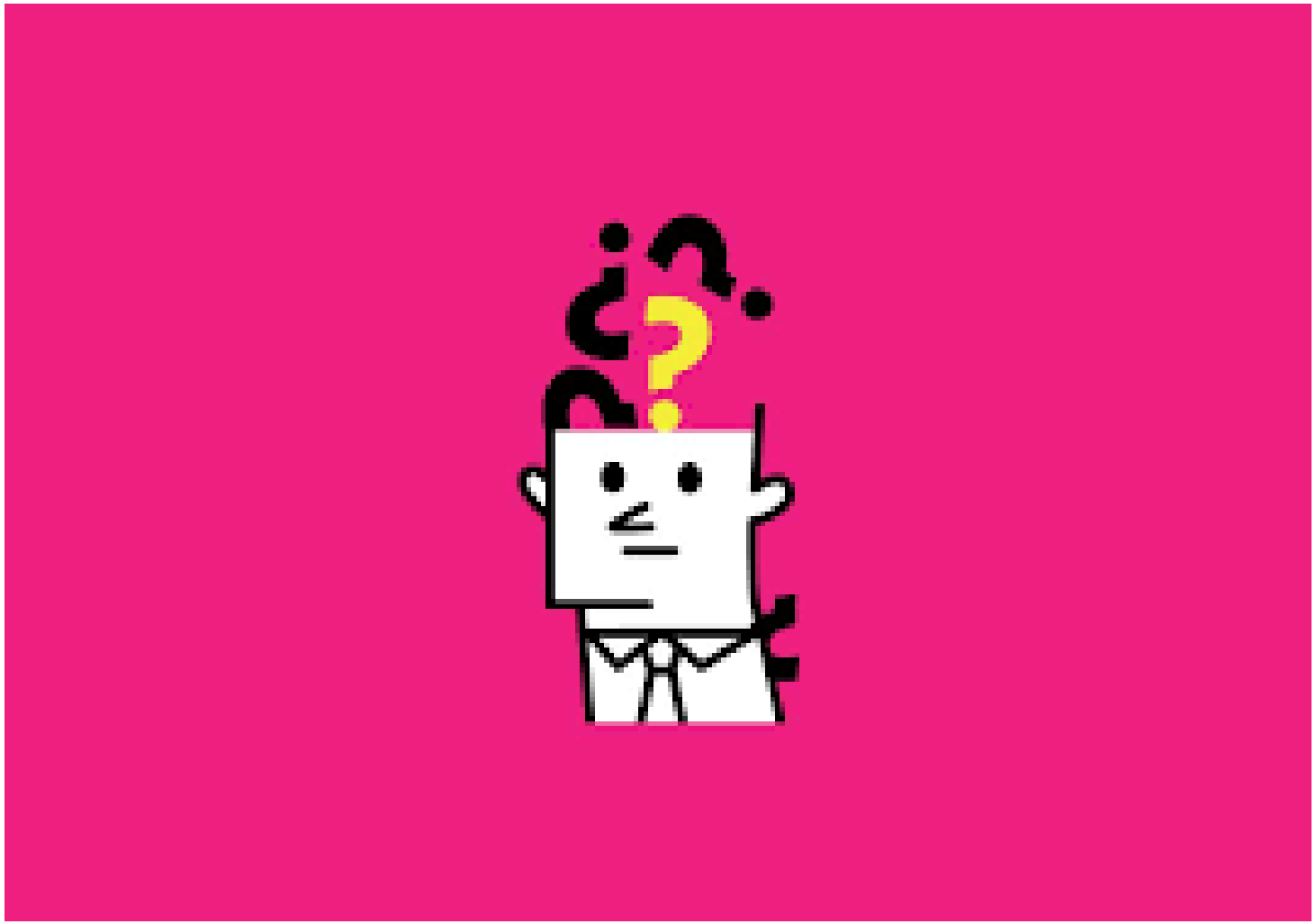
Agenda

Why are we talking about security???

What should your approach be???


LET'S START!

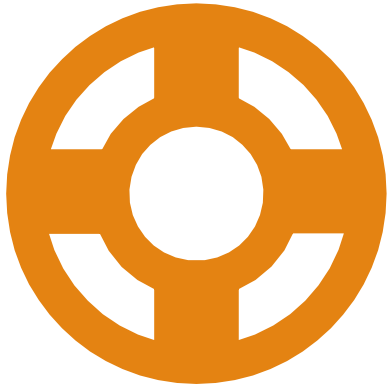


why do we need security??

Some answers

- They find it fancy and cool
- They dropped in there by accident

- To maintain privacy
- To protect passwords



But what is our aim???

Confidentiality

- State of keeping data private
- we encrypt our data to achieve this

encryption is a two-way function

If we can encrypt a data, we can decrypt a data too.

Integrity

- State of having the data unaltered
- We create hash of the data to achieve this

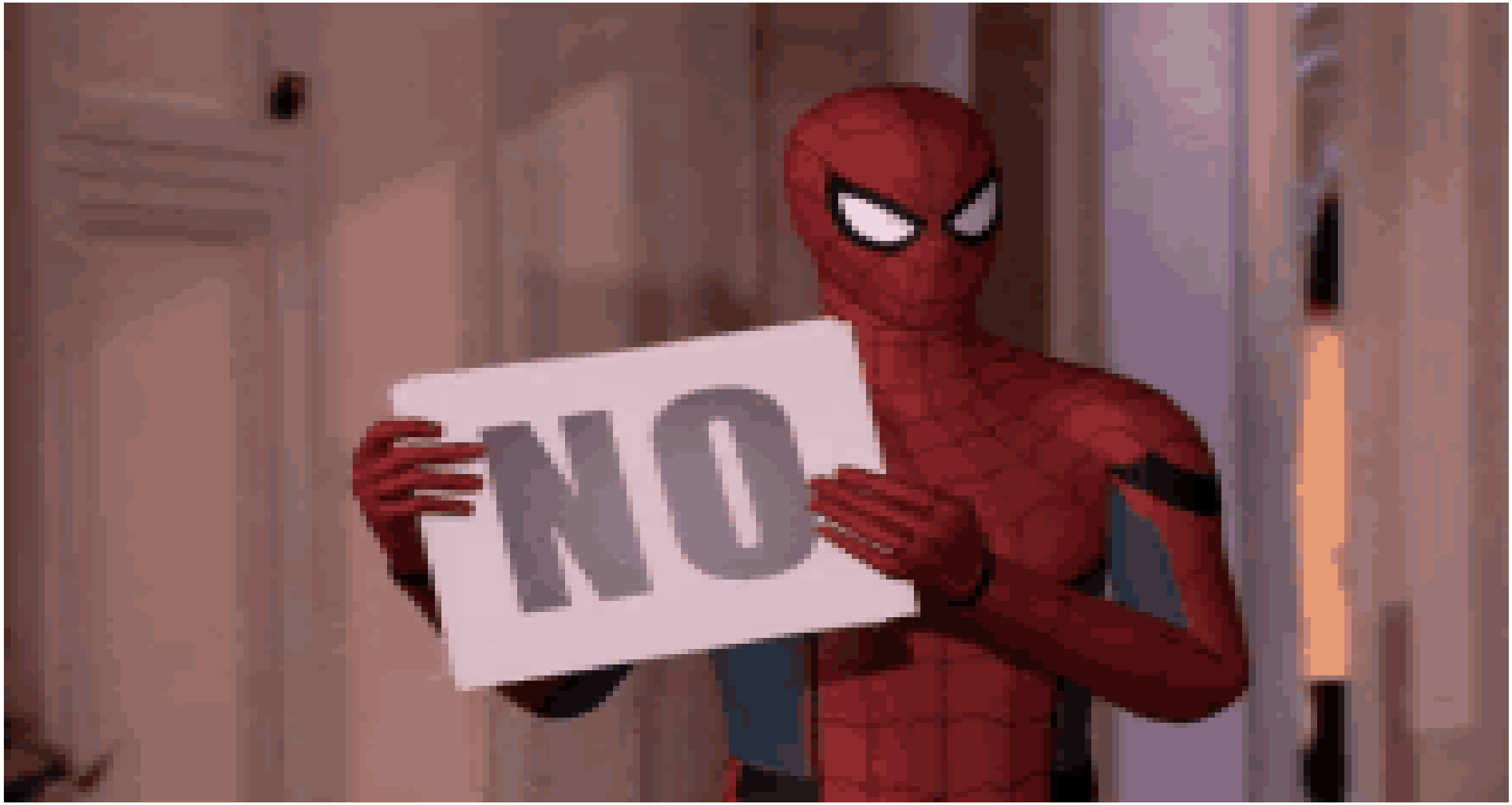
Hashing is a one-way function.

If you create a hash of a data, you can not reverse it.

Availability

- State of the data being available to the recipient
- We look for failover strategies to take care of it.

But is that it???


NO

There are more…

- Non repudiation
- Authentication
- Authorization

And more…

Let’s get to the next question!!

What should our approach be?

What are we enumerating?

- A web application
- A mobile application
  - is it an apk file
  - is it an ipa file
- Api
- Hardware
- Iot
- And what else

How does it work??

What does it do?

Understanding the technologies used behind!!

Any known attacks are we aware of??

Let’s understand from an example

http://example-1.com

What are the things we have to look for?

What is the application about?

The technology used!

Php

Java

Asp.net

…

Is there an input field?

Does the input field reflect something?

Does my input go into a sink?

Is the application even using a database?

What kind of resources are they looking for???

http://example-1.com?page=hello.php

http://example-1.com?id=1

Is my input field doing a function call?

And many more…


ask
yourself
WHY

What did we learn??

- Understanding the responsibility of a security researcher
- The term “hacking” may sound cool, but it’s not
- We must analyze properly before looking for any vulnerability in any application.


Any Questions?

Contact me

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THANK
YOU