







User

Salary

...

Alice

...

Eve

...

...

...

...

10,000 €

2,718 €

**DATA INTEGRITY & ASSOCIATION**











EVER GETS AN INSTANT PROMOTION

**0X123456...**



3,141€

**Problem: Sensitive data can be manipulated.**



## DATA INTEGRITY & ASSOCIATION

0X123456...



**Problem:** Sensitive data can be manipulated.

**Solution:** Use cryptographic checksums with a secret.



User	Salary	Checksum*
 Alice	3,141€	0x4711...
 Eve	2,718 €	0xabcd...
...	...	...

\* Checksum with a secret: hmac, AEAD, public key signatures

# DATA INTEGRITY & ASSOCIATION

0X123456... ✓

**Problem:** Sensitive data can be manipulated.

User		Salary	...
	Alice	3,141€	...
	Eve	10,000 €	...
...	EVE GETS AN INSTANT PROMOTION		...