



JENNER

User

Salary

Checksum*

Alice

0x4711...

Eve

0xabcd...

...

...

...

10,000 €

2,718 €

DATA INTEGRITY & ASSOCIATION









THE CHECKSUMS DON'T MATCH, PROMOTION IS DECLINED

0X123456...



3,141€



*Checksum with a secret: HMAC, AEAAD, public key signatures

Problem: Sensitive data can be manipulated.



Solution: Use cryptographic checksums with a secret.

DATA INTEGRITY & ASSOCIATION

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| User | | Salary | Checksum* |
|-------------------------------------------------------------------------------------|-------|----------|-----------|
|  | Alice | 3,141€ | 0x4711... |
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* Checksum with a secret: hmac, AEAD, public key signatures

DATA INTEGRITY & ASSOCIATION

0X123456... ✓

Problem: Protected data can be “replayed”.

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