Case Study

UNDER DEFENSE

Retail Mobile Application Penetration Testing

Project overview

20 days

For testing

3

Certified ethical hackers

1

Mobile Application

GRAY BOX

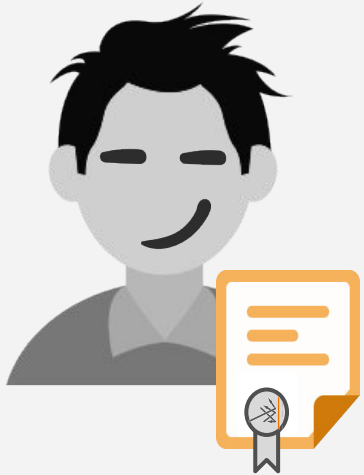
Penetration testing

UNDER DEFENSE

Project Challenge

Technical Goals

- Test Mobile Application with initial access (unprivileged user profile) from attackers' perspective
- Detect and give recommendations on fixing security issues to protect sensitive data, users' money and company reputation



Business Goals

- Evaluate current level of mobile application and platform security
- Identify gaps in current cybersecurity posture and check IT environment for weaknesses
- Provide an accurate evaluation of the security level after remediation phase

UNDER DEFENSE

Mobile Application overview

iOS & Android cross platform app

Integrations with **Banking Systems**

Production environment with more than 100 000 users

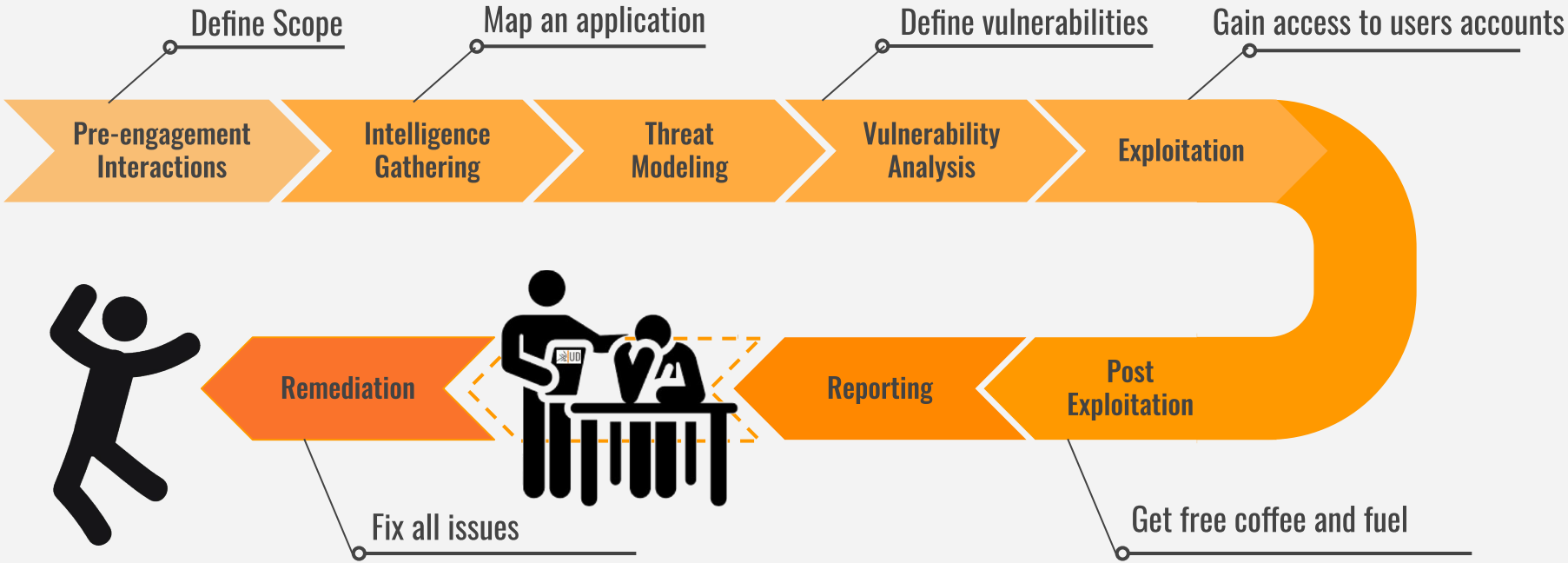
Manage your **bonus points:** accumulate, spend, share

Pay for fuel and coffee on gas stations

Review bonus system partners, **news and updates**

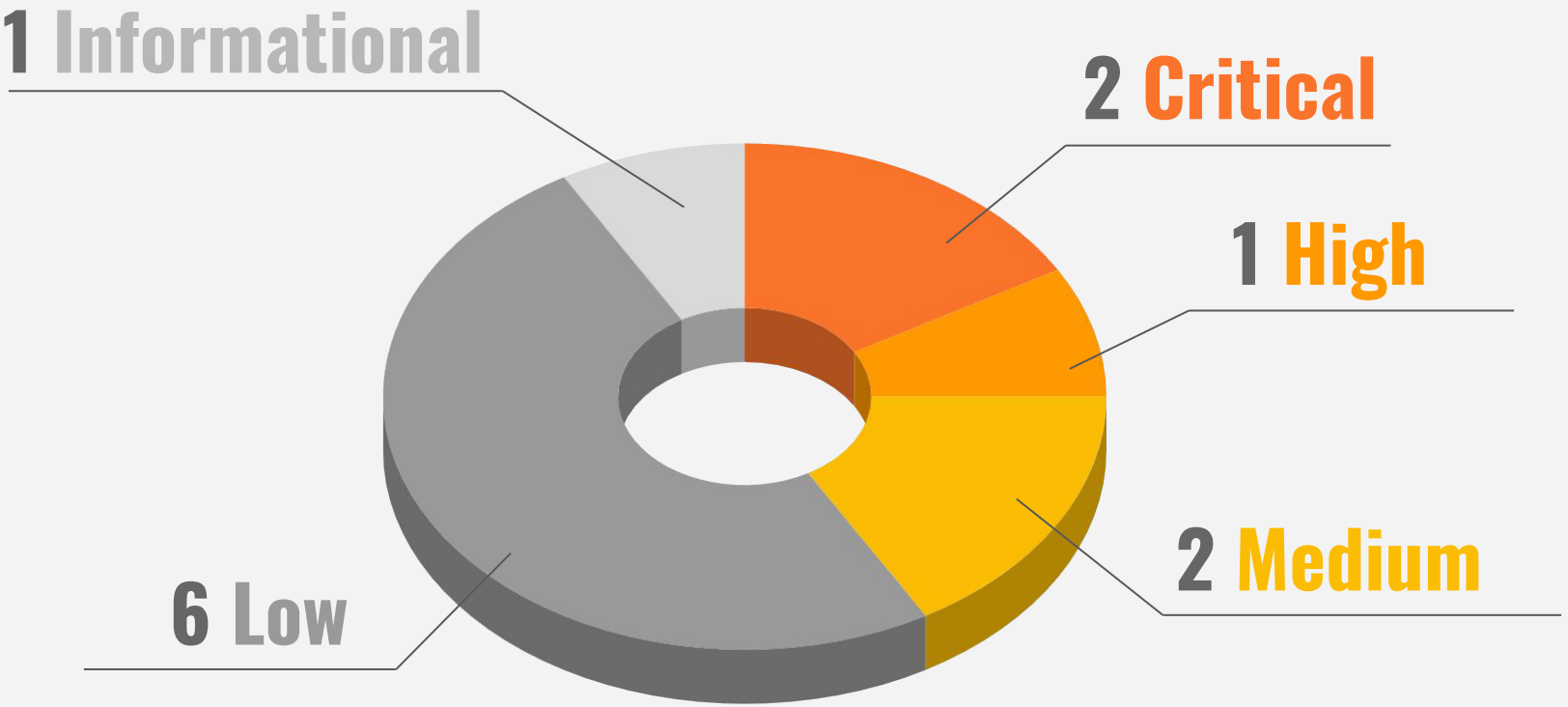
UNDER DEFENSE

Project Planning and Goals



UNDER DEFENSE

Found vulnerabilities by severity



UNDER DEFENSE

Hacking Scenario: account takeover & funds usage

Attacker...

... gets **list of Users** utilizing an User Enumeration vulnerability...

... checks if user account has **credit card** assigned...

... gains **access to user's account** utilizing vulnerability in password reset functionality ...

... STEALS user's **private data and money** from assigned credit card

UNDER DEFENSE

Free coffee and fuel

Using found security issues **UnderDefense** Penetration Testing Team was able to collect information about existing users, perform attacks on users' profiles to obtain access to them.

After a compromisation of **user's account** we could pay for coffee and fuel with bonuses and also what's more critical with a **debit card** attached to the account.

UNDER DEFENSE

Project Artifacts

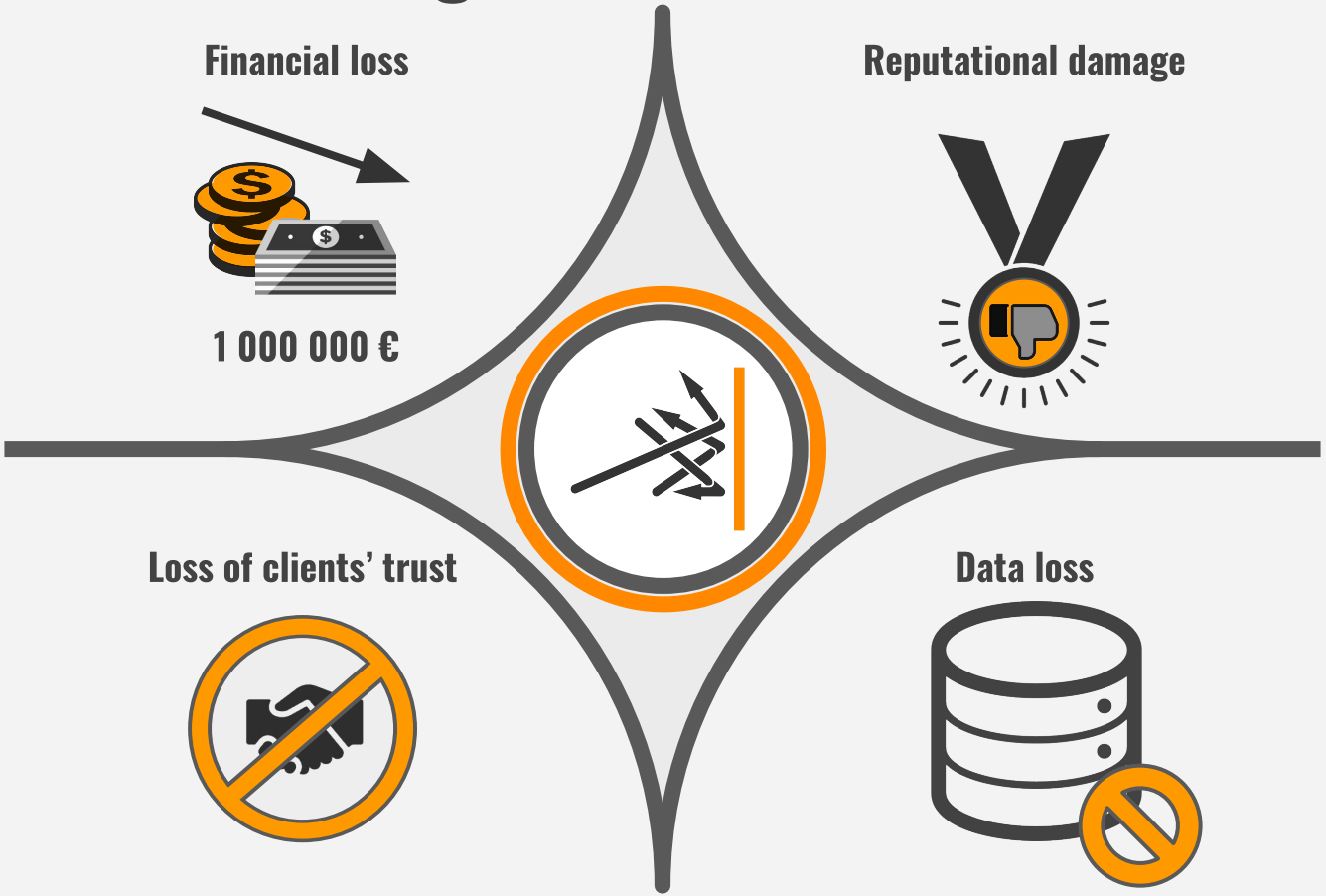
Found **passwords** to profiles

```
Can’t login to XXXXXXXXXX
Can’t login to XXXXXXXXXX
Can’t login to XXXXXXXXXX
Can’t login to XXXXXXXXXX
Found phone with pin 1337: XXXXXXXXXX
Can’t login to XXXXXXXXXX
Can’t login to XXXXXXXXXX
Found phone with pin 1337: XXXXXXXXXY
Can’t login to XXXXXXXXXX
Can’t login to XXXXXXXXXX
....
```

Liters of **coffee and fuel**

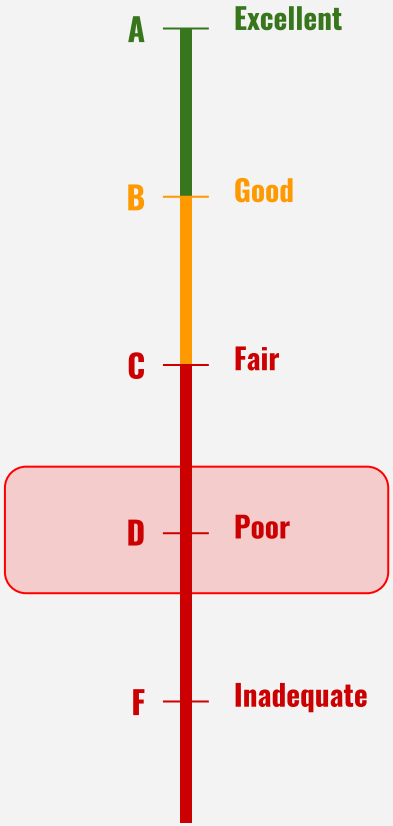
UNDER DEFENSE

Business risks mitigated



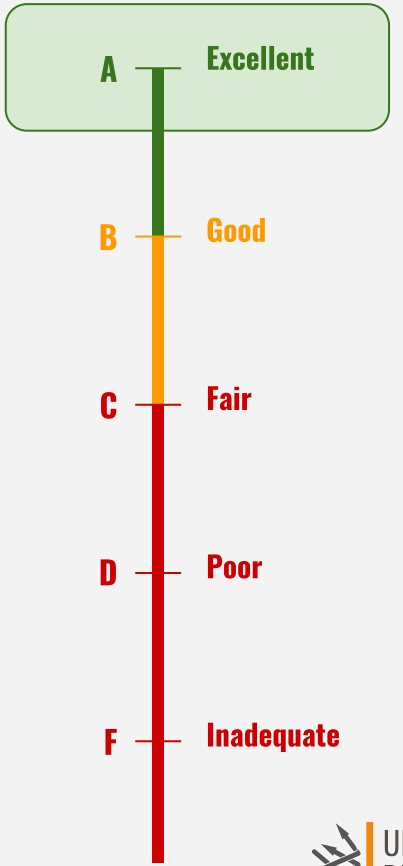
UNDER DEFENSE

Project Results



UnderDefense has delivered a comprehensive report covering all found vulnerabilities and providing recommendations on the best ways of mitigation

At the end our client was able to meet the highest level of compliance and regulation standards, develop better security practices and get a big logo on the board assuring customers in a good security posture.



UNDER DEFENSE

Thank you!

USA
Tel: +1 929 999 5101
email: help@underdefense.com