

# Business logic flaws

BY UNCLE RAT



# Agenda

- ▶ What is it
- ▶ Impact
- ▶ Examples



What is it



# What is it

- ▶ Flawed assumptions about user behavior
- ▶ Leads to flaws in the design and implementation of the logic
- ▶ Will not be exposed by normal use of the application
- ▶ Are normally invisible
- ▶ By passing unexpected values to the server we try to induce unwanted behavior



Impact



# Impact

- ▶ Can range from trivial to critical
- ▶ Depends on the related functionality
- ▶ I.e. flawed logic in money transactions is much more impactful than flawed logic signing up for a newsletter



Examples



# Examples

- ▶ The best way is to learn by example
- ▶ <https://portswigger.net/web-security/logic-flaws/examples>
  - ▶ Client side calculations of prices in a webshop
  - ▶ Existing users return another status code from non-existing ones when user brute forcing
  - ▶ Negative amounts of items on a webshop lead to negative prices
  - ▶ If  $\text{price} = \text{integer}$  and  $\text{amount} = \text{integer}$  and  $\text{total price} = \text{integer}$  we can overflow total price when we  $\text{price} * \text{amount}$
  - ▶ Very very long input might get cut off allowing for unintended behaviour when registering an account

