**Blockchain Developer Online Bootcamp 2020**

***Final project – Proposal***

***By: Arnoud Commandeur***

# Introduction

My plan is to create a website for Escaperoom visitors and mentors. The website is sort of a wallet. Everytime you solve an escaperoom you will be rewarded a badge. Collecting badges adds a new dimension to the escaperoom game besides solving the escaperoom itself.

The badge itself is given away by the escaperoom mentor to the visitor only after escaping the room within the specified time. The mentor is only able to grant a badge for his own room. Badges can be bought by the owner with Ether via a smart contract.

The badges can not be transfered after they have been issued to the visitor.

# Technical components

* Website/app that actas a wallet. It has the following functionality:
  + Create account
  + Show public ethereum address as a barcode
  + Page that shows all collected badges
* Website for escaperoom owner
  + Buy tokens
  + Scan a qr code of a visitor to distribute badge
* Website/app for smart contract admin
  + Add new Escaperoom including meta data
  + Add admin for specific Escaperoom
* Smart contract, which contains
  + All escaperooms
  + Badges available per escaperoom owner
  + Badges per visitor
  + Admins per escaperoom
  + Functions
    - BuyBadges
    - DevideBadge
    - AddAdmin
    - RevokeAdmin
    - ShowCollectedBadges

# Remarks

* The smart contract could be build as a erc721 or erc1155 contract, but I will create my own contract with a different interface and structure for learning purposes