

#### Elevator management system:

- Each building has several elevators, n floors
- You need to implement a management system for elevators requests by tenants
- Elevator types and restrictions (order for fastest to slowest elevator):
  - Fast elevator – work for 10<sup>th</sup> floor and up, max capacity 5 persons
  - Standard elevator – work over all floors, max capacity 10 persons and 50KG cargo
  - Cargo elevator – work only for Odd floor numbers, max capacity 750KG (no people)
- Elevator has an reserve() function which include 10 second sleep (simulating the time of serving tenant request if available).
- The system acts as a server listening for API request:
  - Management should minimize the waiting time and serving time
  - A request includes to following body:
    - num\_persons: int
    - cargo\_weight: int
    - requested\_floor: int
  - a response should include an informative string including the chosen elevator type or the elevator status any problem with reserving an elevator (if a specific elevator needed but in use).

#### Requirements:

- programming language - Python
- server-side framework – Flask
- please use OOP and OOD principles
- Write flow chart with implementation architecture
- A short documentation for the API request you used
- You can compress the project and other file to ZIP/RAR file and send it to [guy.yanko@stargo.co](mailto:guy.yanko@stargo.co)