**Functional requirements:**

- As a back officer, I want to have an overview of work calendar of janitors and collectors

- As a back officer, I want to have an overview of MCPs and capacity

- As a back officer, I want the MCPs' availability to be updated every 15 minutes

- As a back officer, I want to assign tasks weekly, vehicles and routes monthly

- As a back officer, I want to send messages/notices to individual or in general

- As a janitor, I want to have an overview of work calendar daily or weekly in one view

- As a janitor, I want to check out/mark my progress

- As a janitor, I want waste site to be near each other

- As a janitor, I want to check-in at the start of every shift

- As a collector, I want the optimal route among MCPs

- As a collector, I want to have an overview of the routes daily or weekly

- The system allows employees to send messages to others

- Only a back officer can send notices to everyone

**Non-functional requirements:**

- System can import and use existing data from UWC 1.0

- Be inter-operable with UWC 1.0

- Navigating through system should have delay less than 1.5 second

- Delay in messages should not be over 1 second

- Handle real-time data from at least 1000 MCPs at the moment and 10000 MCPs in five years

- Language in Vietnamese with possibly English in the future

- Can be able to use after 2h

- System must be up between

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Task module:

- Back officers can have an overview of work calendar

- Back officers can assign tasks to janitors and collectors weekly

- Back officers can plan optimal routes and vehicles for collectors monthly

- Back officers can have an overview of MCPs and their capacity. Information should be updated every 15 minutes and MCPs are available for 95% of operating time

- Back officers can send message to janitors and collectors

- Janitors and collectors have an overview of their calendar

- Janitors and collectors have a detailed view of work calendar daily and weekly in one view

- Janitors and collectors can communicate with other janitors, collectors and back officers in real-time manner with delay less than 1 second

- Janitors and collectors can check in/ check out their task everyday

- Janitors and collectors have notices about fully loaded MCPs