IDEAS FOR 1.1

Identify the context of this project. Who are relevant stakeholders? What are their current needs? What could be their current problem? In your opinion, what benefits UWC 2.0 will be for each stakeholder?

1. Get user’s requirement
2. Develop system’s requirement
3. Identify the stakeholder
4. Making feasibility test

(1) Does the system contribute to the overall objectives of the organization?

(2) Can the system be implemented within schedule and budget using current technology? and

(3) Can the system be integrated with other systems that are used

1. Modified system’s requirement

**ACTUAL WORK**

# STAKEHOLDERS:

Internal stakeholders are people whose interest in a company comes through a direct relationship, such as employment, ownership, or investment. External stakeholders are those who do not directly work with a company but are affected somehow by the actions and outcomes of the business.

## **External**: The parties or groups that are not a part of the organization, but gets affected by its activities

1. Government
2. Citizen of nearby area
3. Private Sweeper
4. Citizen paying for service
5. Service provider Y

## Internal: The individual and parties that are the part of the organization

1. Back officers
2. Collectors
3. Janitors
4. Organization X

# CURRENT PROBLEMS OF URBAN WASTE MANAGEMENT: (POSSIBILITIES)

## Waste management

Urban waste collected at temporary disposal are not separated between organic and non-organic waste => No training about waste management

Temporary dumps usually are not well-managed => Create population and health risk for local communities.

Private Sweepers usually use old technology to collect and dispose waste, they do not obtain modern and efficient technology to properly dispose waste.

## Organization:

**Back officer:**

Lack information about type of vehicles and MCPS => Do not know how to assign task for janitors and collectors.

**Collectors and Janitors:**

Need to learn to use multiple different platforms to perform their task correctly (Calendar to see work shifts, Map to see the proper route, etc, …) => More time training. Unable to get access to emergencies immediately, have to make a call and remember who are their supervisors.

Unable to focus on their specialization, have to be cautious for everything (is MCP full, which route is the most efficient, …)

Unable to get access to the necessary information and have to make requests for everything.

# CURRENT NEED OF STAKEHOLDERS:

**Citizen:** Need better waste management. Get informed about waste collection calendar to properly classify trash and dumps. Need healthier environment where trash is not around.

**Government:** Need better waste management. Trash dumps are well-managed => Waste do not contaminate water and land source. More modern and green technology to process waste.

**Back officer:** Information about janitors and collectors, their work calendar. Have an overview of vehicles and their technical details (weight, capacity, fuel consumptions, etc)

Have an overview of all MCPs and information about their capacity. Information should be updated from MCPs every 15 minutes with the availability of at least 95% of their operating time

Map of area (include traffic information, route, distance and fuel consumption) to properly locate MVP and send collectors, janitors.

Ability to contact collectors and janitors for emergency.

**Collectors and Janitors:** Information about their work shifts (include time, location and MVP they are assigned to). Have a detail view of their task on a daily and weekly basic. All important information should be displayed in one view (without scrolling down).

Be able to communicate with collectors, other janitors and back officers. The messages should be communicated in a real-time manner with delay less than 1 second

Collectors: Route to get to their destinations. Information about their vehicles (max capacity, fuel consumption, …). Type of their MCPs and contact info of janitors who are responsible for their MCPS. Notified if the MVPS is fully loaded

Janitors: Map of their assigned area. Notified if the MVPS is fully loaded. Route to get to their MVPS and information of family (waste type, …) they are going to collect.

# BENEFITS

**Citizen:** Better waste management. Trash is collected on same schedule and location => Easier to keep track

**Government:** Better waste management. Trash dumps are well-managed. Better environment where trash is handled with utmost care.

**Back officer:** Can easily keep track of collectors and janitors work calendars. Can easily obtain information about different kinds of vehicle, route and MCPS => Easier to assign work calendars and proper vehicles for collectors and janitors.

Can immediately contact with collectors and janitors => Keep them informed about emergency or sudden change of route because of traffic problems.

**Collectors and Janitors:** Can keep track of their work shift easily, can focus on their specializations without caring too much about external information. Can get access to their work information directly => Need less training on how to use the platform => Less thing to remember and work on.

Be able to communicate with collectors, other janitors and back officers to inform about emergencies and get notified about sudden change of plans immediately.