1. INTRODUCTION

A web based dashboard is created for the ward officers/ administrator to visualize the complaints reported data and take the necessary action to resolve the complaints. The dashboard has the functionality to visualize the data, generate report, user/vehicle management, job assignment and GIS based optimal route determination.

1.1 Requirements

Dashboard is supported on system (PC) having following requirements:

- Any working computer with Web browser. Recommended version is windows 7 and above.
- Internet connection. Recommended speed is 1 Mbps.

1.2 Application access


2. HOW TO USE THE APPLICATION

There are two kind of credentials:

i) Administrator: can be created at server side by database manager and has the responsibility to monitor overall cleaning status and ward officers.

ii) Ward officer: can be created by administrator and has the responsibility to assign jobs and provide appropriate GIS route to the cleaners.

2.1 Roles of administrator and ward officer:

Administrator/ ward officer need to enter the credentials in the following screen.

![Fig. 1: Login screen](image)

After the successful validation of credentials, the screen as shown in fig.2 or fig. 3 will appear.
The administrator has the following capabilities:

- User management: to manage ward officer login.
- Vehicle management: to manage vehicle(s) for cleaning.
- View submission: to view all the submissions to a municipality.
- Reports: status report of cleaning.
- Change password: to change the password.
- Logout: to logout from the application.
Ward officer has the following capabilities:

- Assign cleaner(s) to the ward: to assign cleaner to the ward.
- View cleaner details: to view the existing cleaner details.
- View submissions: to view submissions of the corresponding ward only.
- Route determination: to determine the optimal route.
- Reports: to generate status report.

### 2.2 Job assignment:

After login, click on the Views Submissions (Fig. 4), this will open a new window where ward officer can:

- Assign a job to a vehicle
- Assign group of jobs to a vehicle
- Merge same complaints/ repetitions and assign the job
- Reject a complaint

Also Dumper Placer (DP), Compact Placer (CP) can be visualized over the map as well as satellite/map in the background.
Fig. 4: View submission

Job assignment can only be done by corresponding ward officer (Fig. 5).
2.3 Route determination:

On the home page, click on the **Route determination**, this will open a new page where list of vehicle is available,

Click on the desired vehicle, this will open a new page where ward officer will select the start and end points, and finally click on find route followed by save route option (Fig. 6).
Fig. 6: Route determination
2.4 Reports:

In the home page click on the reports, this will open a new page where ward officer can select start date & end date to get the status report of the desired period (Fig. 7).

![Status report](image)

**Fig. 7: Status report**