Developing a Web-Based Pothole Tracking and Repair System (PHTRS)

# Introduction

The department of public works for a large city has decided to develop a web-based pothole tracking and repair system (PHTRS). This system allows citizens to report potholes and enables the public works department to manage repairs efficiently.

# Description of PHTRS

Citizens can log onto a website and report the location and severity of potholes. As potholes are reported, they are logged within the "public works department repair system" and are assigned an identifying number. The information stored includes street address, size (on a scale of 1 to 10), location (middle, curb, etc.), district (determined from street address), and repair priority (determined from the size of the pothole).

## Work Order Data

Each pothole has associated work order data, including:

* Pothole location and size
* Repair crew identifying number
* Number of people on crew
* Equipment assigned
* Hours applied to repair
* Hole status (work in progress, repaired, temporary repair, not repaired)
* Amount of filler material used
* Cost of repair (computed from hours applied, number of people, material, and equipment used)

## Damage File

A damage file is created to hold information about reported damage due to the pothole. It includes the citizen's name, address, phone number, type of damage, and dollar amount of damage. PHTRS is an online system; all queries are made interactively.

## Process Flow

A diagram of a company

AI-generated content may be incorrect.

Program

A screenshot of a computer program

AI-generated content may be incorrect.

Execution

A screenshot of a computer program

AI-generated content may be incorrect.

# References

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A practical, easy-to-follow guide to UML with real-world examples, perfect for students and developers.