 **Air University**

(Multan Campus)

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| Department of Computer Sciences |
| Software Engineering |
| Use-Cases |
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**Problem # 6.6**

The department of public works for a large city has decided to develop a Web-based pothole tracking and repair system (PHTRS).

A description follows:

Citizens can log onto a website and report the location and severity of potholes. As potholes are reported they are logged within a “public works department repair system” and are assigned an identifying number, stored by 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 are associated with each pothole and include 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, and cost of repair (computed from hours applied, number of people, material and equipment used). Finally, a damage file is created to hold information about reported damage due to the pothole and includes citizen’s name, address, phone number, type of damage, and dollar amount of damage. PHTRS is an online system; all queries are to be made interactively.

=>Write the use case of above provided problem.

**Solution:**

**Use case:** Web-based Application

**Primary actor:** Citizens (Users)

**Goal:** To online report about the potholes.

**Pre-condition:** The system must be fully functional and accept the complaints from the citizens about the potholes.

**Trigger:** The citizen reports about the pothole i.e logs on to website and provides information about the location and severity of the pothole by filling the questionnaire.

**Scenario:**

* Citizen login to website.
* Citizen provides the information (Name, Phone number, Address).
* Citizen complaints about the pothole.
* Citizen fills the information about damage potholes.
* Citizen verifies by submitting information.
* Citizen views the complaint.
* Citizen logs out the website.

**Exceptions:**

* Invalid information by citizen.
* System generate inappropriate error messages.
* Internet service not available.
* Some important question left unfilled.

**Priority:** Essential

**Channel to actor:** web-based system

**Secondary actors:** Administration Team

**Channels to Secondary actors:** website is the major channel.

**Open issues:**

* Should the system be able to show working status on pothole?
* How much time required to access the reports.
* Any other way to use the system without citizen’s personal information.