Group Work: Make a Use Case

Example Scenario: Web-based Pothole Tracking and Repair System (PHTRS)

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.

Task 1

Based on this description, identify and document the actors involved.

Task 2

Identify some possible use cases.

Don't give them details yet, just give them a name and a very short description.

Task 3

Create a Use Case Diagram involving some of the use cases listed below

Task 4

Using the template shown previously, document the use case of a Citizen logs in and reports a pothole in detail.

Task 5

Using the template shown previously, document the Create Work Order use case in detail.

anyone/anything that is in this role.
active/passive.

The Actor Template

Actor:	The actor's name.
Description:	Brief description of the actor and its role in the system. This description should be no more than a small paragraph and should give the reader an understanding of the role of the actor in the organization.
Aliases:	Any other names by which this actor may be known. A simple list is sufficient. Say 'None' if there are none.
Inherits:	The ancestors for the actor. Some actors may be specialized types of other actors. A simple list of the names of the ancestors will suffice. Say 'None' if there are none.
Actor Type:	Whether the actor is a person or an external system, as well as other forms of typing. (Such as whether they are active or passive in the software system.)
Relationships:	The relationship(s) this actor has with other actors. Say 'None' if there are none.

Actor	active: Citizen, city employee.
	passive: repair crew, repair system.
Cases	report
	send order request: system → repair crew.
	create damage file.

The Use Case Template

Use Case:	*A name given to the use case.*
Primary Actor:	*The main actor in the use case; the use case is from their perspective.*
Secondary Actor:	*Other actors involved in the use case.*
Goal in Context:	*The overall scope of the use case, provides a brief description of the use case and its purpose.*
Preconditions:	*What is known to be true before the use case is initiated.*
Trigger:	*What event or condition gets the use case started or invoked.*
Scenario:	*A numbered series of steps that capture the narrative of the use case, outlining what the actors do in this use case and what happens as a result.*
Alternatives:	*If alternative behaviour is possible at any of the steps outlined in the Scenario, it should be described here in a similar fashion. Say 'None' if there is no such alternative behaviour.*
Exceptions:	*Identify potential issues or situations that may arise from the various steps of this use case.*
….Extra Fields…	*Additional headings and information may be provided as you deem necessary.*

Use case	Create workorder
Prim actor	System
Sec actor	Repair crew
Goal	Repair man receives info about dmg
Precondi	The system receives report from citizen
Trigg	A report receives
Scenario	Assign the repair task to ~~a~~ fix person
Alt:	None
Exce	If no repairman ...