Bike service management system use cases

Functional requirements

The bike service center management must:

- Allow mechanic create an account for the service center
- Allow mechanic add new orders with details about the bike, repair scope, and client personal information
- Store details about the order
- Display on main page all currently processed orders
- Display on main page the orders in the appropriate column according to order status
- Allow mechanic change order status
- Allow the mechanic add a list of parts with prices that have been used for service
- Calculate the total price of the service
- Store information about the clients
- Remove from main page orders that are in the “Collected by client” stage

Non-functional requirements

The bike service center management should be:

- Available 5 days a week (Monday-Friday) 9 am – 5 pm
- User-friendly for mechanics
- Able to store and display to 20 orders at the same time
- Secure, to get data about orders mechanic has to be logged in (by using username and password)

Use cases

Title: Add new order to system

Primary Actor: Mechanic

Success scenario:

1. Mechanic opens a tab to add order
2. Mechanic types information about the customer like first name, last name, and phone number
3. Mechanic types details about the bike (brand, model, color)
4. Mechanic types information about repair scope and price
5. The system saves information about the order and puts it in the “New” stage.

Preconditions:

1. The mechanic is logged in to the service center account
2. Mechanic provided all required information about the order

Title: Create account for bike service center

Primary Actor: Mechanic

Success scenario:

1. Mechanic opens a web browser and goes to the service management system webpage
2. Mechanic signs up an account by typing service center name and password
3. System redirect mechanic to service main page

Title: Repair process

Primary Actor: Mechanic

Success scenario:

1. Mechanic changes order status to “Started”
2. Mechanic repairs the bike
3. Mechanic adds a list of parts that have been used for service
4. Mechanic changes status of the order to “Finished”
5. The system calculates the total price of the service

Extensions:

3a If no additional parts were used, mechanic skips this point

Preconditions:

1. The mechanic is logged in to the service center account

Title: Collection by client

Primary Actor: Client

Success scenario:

1. The client collects the bike from the service center
2. Mechanic changes status of the order to “Collected by client”

Preconditions:

1. Bike status is “Finished”
2. The mechanic is logged in to the service center account

Identifying the objects

- Mechanic
- Order
- Client
- Bike
- Parts

CRC cards

Mechanic	
-Create orders -Manage orders -Repair bikes -Mount new parts	-Order -Client -Bike

Order	
-Keep information about repair -Keep information about oreder status -Keep information about the total repair price -Keep information about the client	-Mechanic -Bike -Client

Bike	
	-Mechanic -Client -Order -Parts

Client	
-Collect bike -Pay	-Bike -Mechanic -Order

Part	
-Keep information about the price	-Mechanic -Order -Bike

Classes/Relationships diagram