**LAB 2**

*Consider the EZGas application.*

*EZGas is a crowdsourcing service that allows users to:*

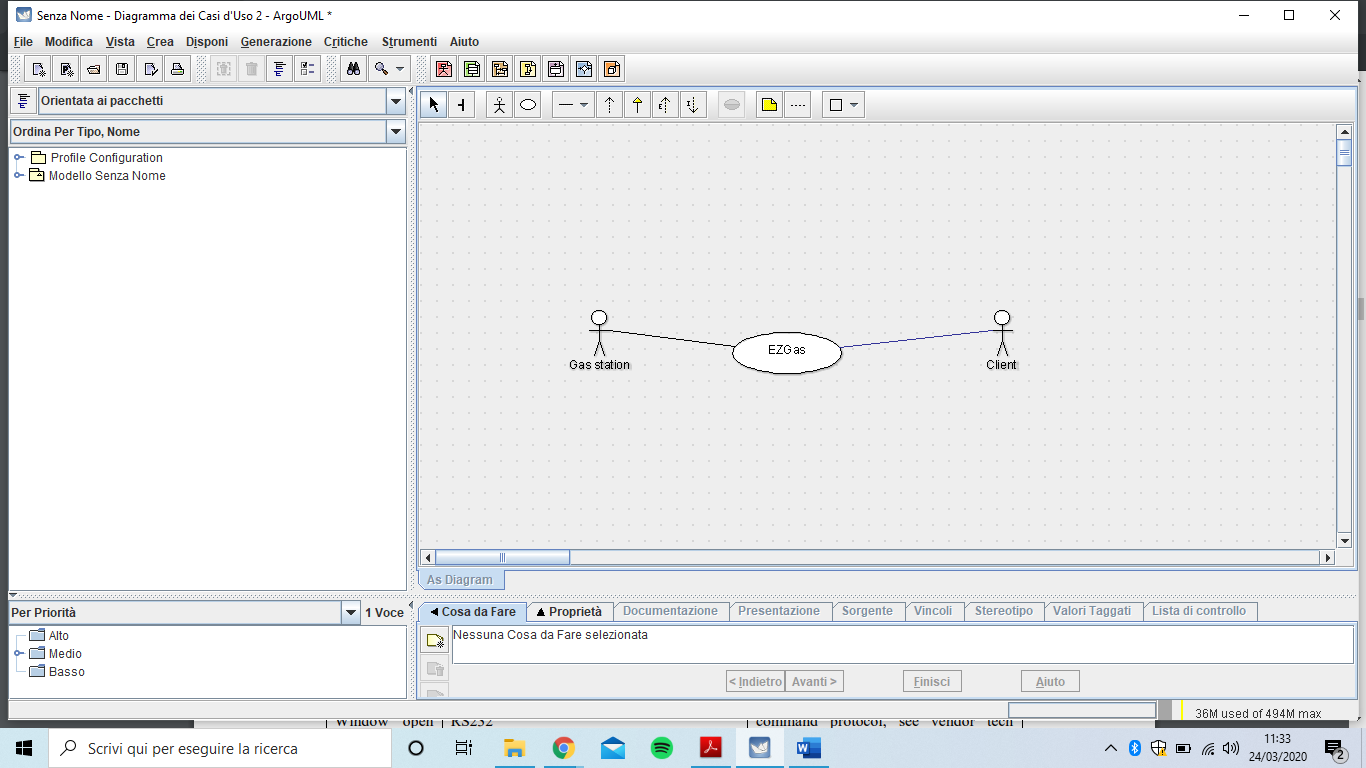
* *collect prices of fuels in different gas stations*
* *locate gas stations in an area, along with the prices they practice.*

*1. Define the stakeholders*

|  |  |
| --- | --- |
| Stakeholders name | Descrpition |
| Gas station | Uses the application to insert his data: price of fuel and area |
| User | Uses the application to look for Gas stations |

*2. Define the context diagram, and interfaces*

Context diagram



Interfaces

|  |  |  |
| --- | --- | --- |
| Actor | Physical interface | Logical interface |
| Gas station | GUI | Screen and buttons |
| User | GUI | Screen and buttons |

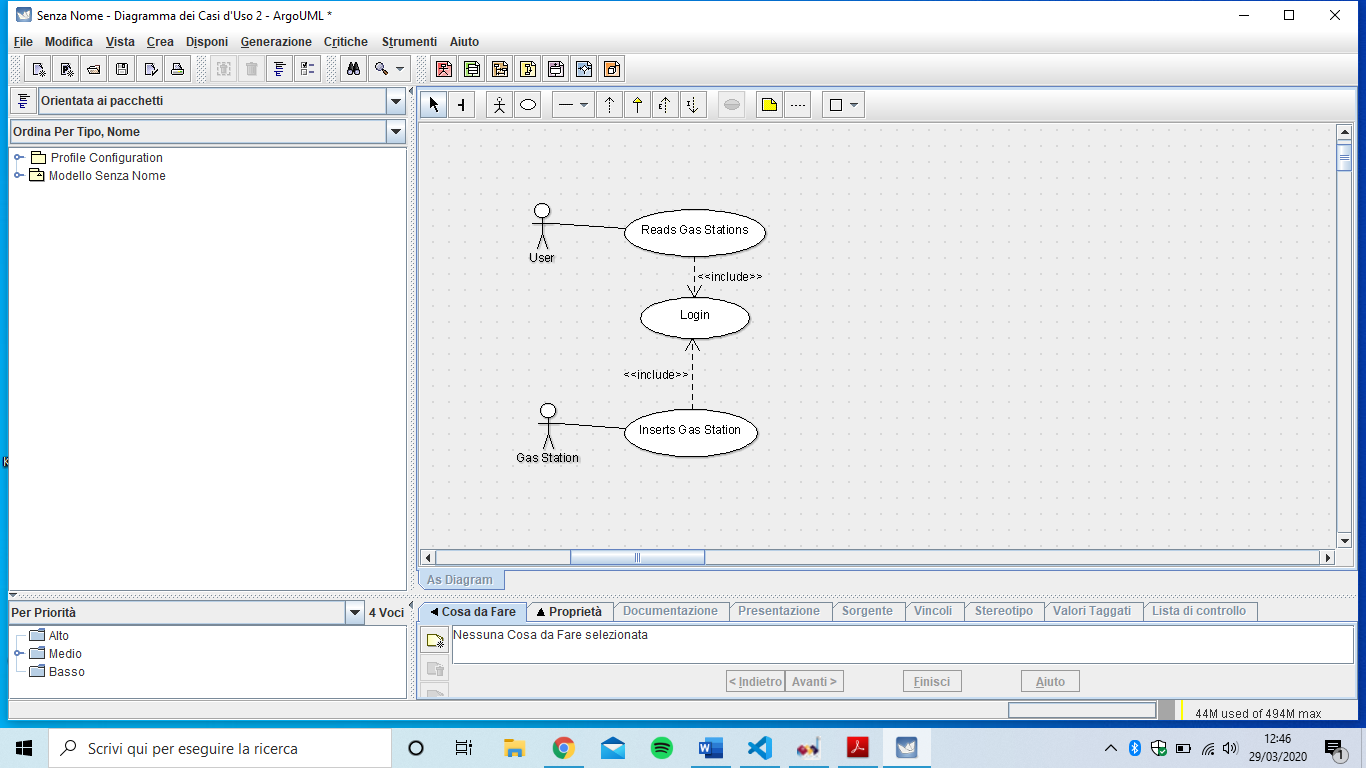
*3. Define personas and stories*

*John would like to know which are the current prices of the Gas stations around his area to understand which is the best for him.*

*John makes the login in the application as a simple user and he can find all the prices of Gas Stations near his area. These prices are inserted by Gas Stations that made the login as a Gas Station and that inserted their prices and area.*

*4. Define scenarios, use cases, and use case diagram*

*Use case diagram*



*Use cases*

**Use case 1, UC1 - Insert Gas Station**

Use case: Insert Gas Station

Level: Gas Station goal

Scope: GUI

Intention in context: The Gas Station wish to define his prices and area

Stakeholder’s concerns:

Minimum Guarantees: The parameter values are consistent

Success Guarantees: The system’s value set by the Gas Station become effective for the system.

Primary actor: Gas Station

Support actors: -

Precondition: Login

Trigger:

Main success scenario:

1. The Gas station makes the Login
2. The Gas Station inserts his prices (FR1)
3. The system validates and confirms
4. The Gas Station inserts his area (FR2)
5. The system validates and confirms

**Use case 2, UC2 – Read Gas Stations**

Use case: Read Gas Station

Level: User goal

Scope: GUI

Intention in context: The user wish to know Gas Stations’ prices and area

Stakeholder’s concerns:

Minimum Guarantees: The parameter values are consistent

Success Guarantees: The user is enabled to read the values.

Primary actor: User

Support actors: -

Precondition: Login

Trigger:

Main success scenario:

1. The user makes the Login
2. The user searches the Gas stations in his area
3. The user reads the prices

**Use case 3, UC3 - Login**

Use case: Login

Level: User, Gas Station

Scope: GUI

Intention in context: Insert username and password

Stakeholder’s concerns: Remember username and password

Minimum Guarantees:

Success Guarantees: Username and password are valid

Primary actor: User, Gas Station

Support actors: -

Precondition: -

Trigger:

Main success scenario:

1. The user inserts his username and password (FR4)
2. The system validates and confirms

*5. Define and number functional requirements*

|  |  |
| --- | --- |
| ID | Description |
| FR1 | Record prices of fuel |
| FR2 | Record area of Gas stations |
| FR3 | Find the nearest Gas stations |
| FR4 | Login management |

*6. Define and number non-functional requirements*

|  |  |
| --- | --- |
| ID | Description |
| NFR1 | Decimal numbers use (dot) as decimal separator |
| NFR2 | The price is represented in euro |