# Technical report

CarSells

This is a technical report for the software platform to be able to see the catalog of vehicles in our company.
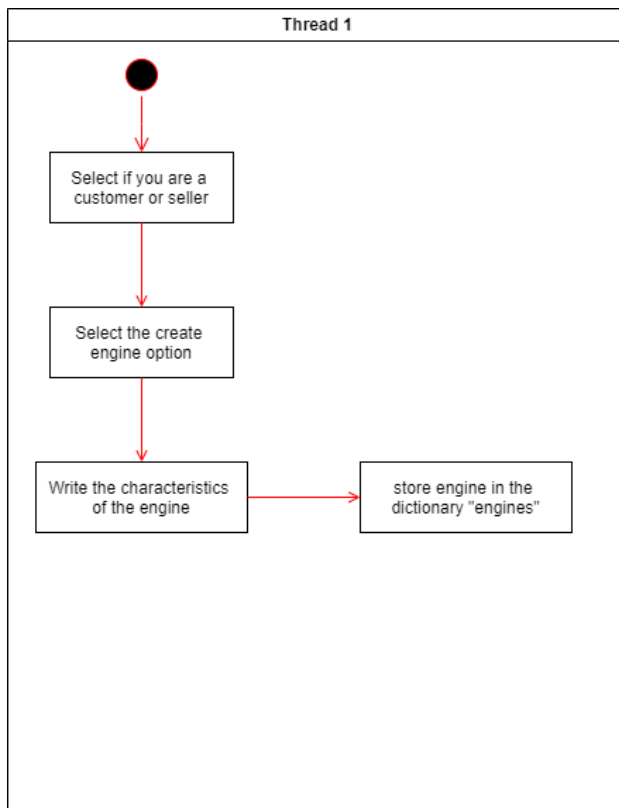
## User stories

- As a seller, I want to be able to create new vehicles and engines with all their features, to keep the catalog updated and offer a wide variety of options to customers.
- As a customer, I want to be able to search for vehicles by type (car, motorcycle, yacht, truck) and specific characteristics, to quickly find vehicles that fit my needs and preferences.
- As a customer, I want to be able to save vehicles that I liked, so that it is easier to keep in mind the vehicles that I like

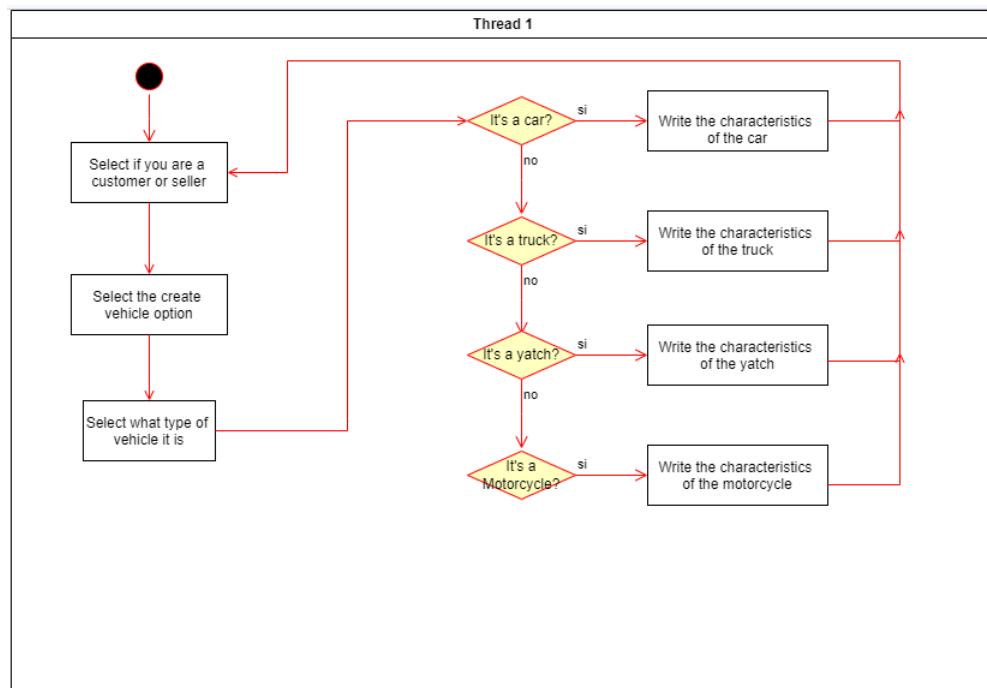Some of the requirements for this software are:

- Each vehicle has at least engine, chasis (_A_ or _B_), model, gas consumption, and year. Depending on the vehicle type, you should define additional properties.
- There are different vehicle types (for now): car, truck, yacht, and motorcycle.
- Each engine has at least a name, type of engine, potency, and weight.
- To calculate the vehicle gas consumption you could create a method based on:
- `1.1 * engine.potency + 0.2 * engine.weight - (0.3 if A or 0.5 if B)`

## Activities Diagrams:

- ### Create engines:



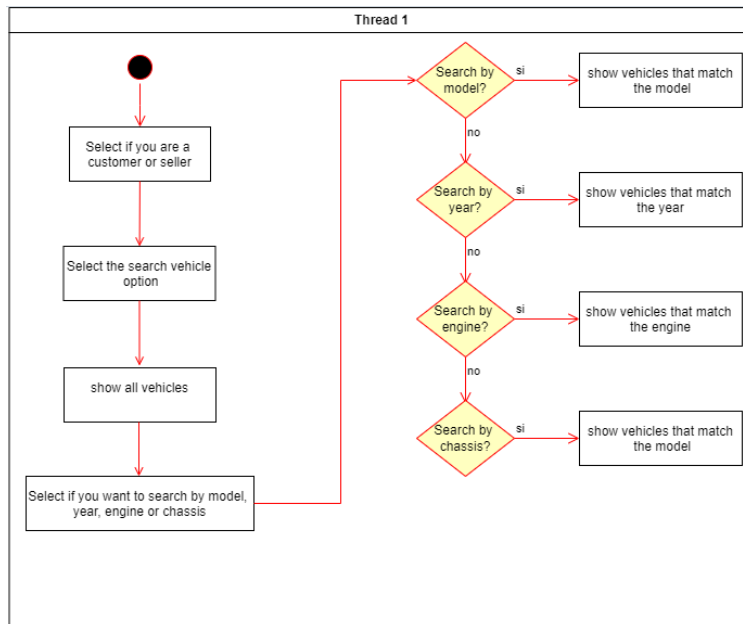- ### Create vehicles:

- Search Vehicles:



## UI prototypes
- add engine form

- add vehicle form



**Add vehicle**

| Engine |
| Model |
| Year |

Chasis

☐ A
☐ B

**Add**

- Show engines

**Engines**

| Name | Type of engine | Potency | Weigth |
|------|----------------|---------|--------|
|      |                |         |        |
|      |                |         |        |
|      |                |         |        |
|      |                |         |        |

- Show Vehicles

## Vehicles

| Model | Engine | Year | Chassis |
|-------|--------|------|---------|
|       |        |      |         |
|       |        |      |         |
|       |        |      |         |
|       |        |      |         |

## communication data structure (JSON)

- create engine:

```json
{
  "name": "V8 Turbo",
  "type_motor": "Internal Combustion",
  "potency": 450,
  "weight": 320.5
}
```

- create vehicle:

```json
{
  "vehicle_type": "car",
  "model": "Model S",
  "year": 2023,
  "chassis": "A",
  "engine": {
    "name": "V8 Turbo",
    "type_motor": "Internal Combustion",
    "potency": 450,
    "weight": 320.5
  }
}
```