Technical report workshop 4

This report is meant to show the technical decisions and strategies used during workshop 4

Main problem seems to adjust some of the quality of the code and be aimed on using some behavioral patterns, to wich we are going to adjust the class diagram and use some of the tools used in class like pylint or the python black formater

Listing decision making:

- First decided to check format and use pylint on the already existing previews project to start working on a clean code
- Decided to add an observer in the user subsystem wich wasn't there at the start, to work with the subscription
- Memento used for cache memory

Class diagram:

User
+name str
+password str
+is_grant()

Main
+login()

Authentification
+login()

Observer

Main
addvehicle(vehicle) listVehicle
+get_price_by_range(min,max) listV

CatalogProxy
-catalog :catalog
-Vehicles :ListVehicle
addvehicle(vehicle) listVehicle
+get_price_by_range(min,max) listVehicle
+get_type_combustion(combustion str) :listVehicle
+searchMaxSpeed(maxSpeed int) listVehicle

Catalog
«interface»
-Vehicles :ListVehicle
+get_price_by_range(min,max) listVehicle
addvehicle(vehicle) listVehicle
+get_type_combustion(combustion str) :listVehicle
+searchMaxSpeed(maxSpeed int) listVehicle

MemoryPerformanceDecorator
-catalog :catalog
-Vehicles :ListVehicle
addvehicle(vehicle) listVehicle
+get_price_by_range(min,max) listVehicle
+get_type_combustion(combustion str) :listVehicle
+searchMaxSpeed(maxSpeed int) listVehicle

TimePerformanceDecorator
-catalog :catalog
-Vehicles :ListVehicle
addvehicle(vehicle) listVehicle
+get_price_by_range(min,max) listVehicle
+get_type_combustion(combustion str) :listVehicle
+searchMaxSpeed(maxSpeed int) listVehicle

ConcreteCatalog
-Vehicles :ListVehicle
+get_price_by_range(min,max) listVehicle
+get_by() listVehicle
addvehicle(vehicle) listVehicle
+get_type_combustion(combustion str) :listVehicle
+searchMaxSpeed(maxSpeed int) listVehicle

Observability

Vehicle
+engine :Engine
+year int
+model str
+price float
+consumption float
+chasis str

Truck
-calculate_gas_consumption float

Helicopter

Scooter

Motorcycle
+Hadi type
+method(type) type

Yatch
+trade str
+weight float
+length int

Car
+trade str
+combustible type
+transmition str

VehicleMemento

VehicleFacade
+CreateVehicle()

EngineFlyweight
+engines dict
+get_engine_type(engine_type str) Engine

EngineFacade

AbstractFactoryEngine
+create_electric() ElectricEngine
+create_gas() GasEngine
+create_hybrid() HybridEngine

LowFactoryEngine
+createHybrid
+createElectric()
+createGas()

HighFactoryEngine
+createElectric()
+createGas()
+createHybrid

GasEngine

HybridEngine
+electricPower int

ElectricEngine

Engine
+torque int
+power int
+dimmension
+weight float
+combustionType str
+stability str