const carMarket = {

sellers: [

{

agencyName: 'Best Deal',

cash: 1245000,

credit: 200000,

agencyId: 'Plyq5M5AZ',

cars: [

{

brand: 'bmw',

models: [

{

name: '3',

year: 2015,

price: 137000,

carNumber: 'AZJZ4',

ownerId: 'Plyq5M5AZ',

},

{

name: 'X6',

year: 2020,

price: 966500,

carNumber: 'S6DL1',

ownerId: 'Plyq5M5AZ',

},

],

},

{

brand: 'toyota',

models: [

{

name: 'Land Cruiser',

year: 2020,

price: 336300,

carNumber: '6rvXw',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Hilux',

year: 2005,

price: 35005,

carNumber: 'MWXBG',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Corolla',

year: 2020,

price: 111900,

carNumber: 'hCzl-',

ownerId: 'Plyq5M5AZ',

},

],

},

{

brand: 'Ford',

models: [

{

name: 'Focus',

year: 2020,

price: 98200,

carNumber: 'kN3HP',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Focus',

year: 2005,

price: 6502,

carNumber: 'LJTCs',

ownerId: 'Plyq5M5AZ',

},

],

},

{

brand: 'Alpha romeo',

models: [

{

name: 'Romeo Julia',

year: 2020,

price: 275406,

carNumber: '2kjy7',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Romeo Stelvio',

year: 2019,

price: 215403,

carNumber: '7A5b-',

ownerId: 'Plyq5M5AZ',

},

],

},

{

brand: 'Chevrolet',

models: [

{

name: 'Traverse',

year: 2020,

price: 201102,

carNumber: 'QwBOT',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Impala',

year: 2019,

price: 165041,

carNumber: '2v4jt',

ownerId: 'Plyq5M5AZ',

},

{

name: 'Malibu',

year: 2017,

price: 75405,

carNumber: 'O4\_Jv',

ownerId: 'Plyq5M5AZ',

},

],

},

],

},

{

agencyName: 'CarMax',

cash: 968541,

credit: 500000,

agencyId: '26\_IPfHU1',

cars: [

{

brand: 'bmw',

models: [

{

name: 'X5',

year: 2015,

price: 218000,

carNumber: '4Ixb0',

ownerId: '26\_IPfHU1',

},

{

name: 'X6',

year: 2014,

price: 97100,

carNumber: 'kAnv-',

ownerId: '26\_IPfHU1',

},

{

name: 'Z4',

year: 2019,

price: 296900,

carNumber: 'ISMdU',

ownerId: '26\_IPfHU1',

},

{

name: '3',

year: 2010,

price: 75100,

carNumber: '9DJPw',

ownerId: '26\_IPfHU1',

},

],

},

{

brand: 'toyota',

models: [

{

name: 'Land Cruiser',

year: 2005,

price: 80540,

carNumber: 'Kt-pW',

ownerId: '26\_IPfHU1',

},

{

name: 'Corolla',

year: 2019,

price: 109100,

carNumber: 'YiYdI',

ownerId: '26\_IPfHU1',

},

{

name: 'Hilux',

year: 2019,

price: 204000,

carNumber: 'DRmNw',

ownerId: '26\_IPfHU1',

},

],

},

{

brand: 'Ford',

models: [

{

name: 'F250',

year: 2020,

price: 198500,

carNumber: 'g4Wfp',

ownerId: '26\_IPfHU1',

},

{

name: 'Explorer',

year: 2020,

price: 265200,

carNumber: 'iNT8Q',

ownerId: '26\_IPfHU1',

},

],

},

{

brand: 'Alpha romeo',

models: [

{

name: 'Spider',

year: 2011,

price: 75405,

carNumber: '6t7QU',

ownerId: '26\_IPfHU1',

},

{

name: '166',

year: 2002,

price: 12400,

carNumber: 'XMqpn',

ownerId: '26\_IPfHU1',

},

],

},

{

brand: 'Chevrolet',

models: [

{

name: 'Impala',

year: 2016,

price: 65042,

carNumber: 'vbeAo',

ownerId: '26\_IPfHU1',

},

{

name: 'Savannah',

year: 2016,

price: 76505,

carNumber: 'WelWa',

ownerId: '26\_IPfHU1',

},

],

},

],

},

{

agencyName: 'The Auto World',

cash: 687450,

credit: 200000,

agencyId: 'gNHjNFL12',

cars: [

{

brand: 'bmw',

models: [

{

name: 'X6',

year: 2018,

price: 548100,

carNumber: 'EMW\_7',

ownerId: 'gNHjNFL12',

},

{

name: '3',

year: 2017,

price: 178000,

carNumber: 'XlnB4',

ownerId: 'gNHjNFL12',

},

],

},

{

brand: 'toyota',

models: [

{

name: 'Prius',

year: 2017,

price: 101542,

carNumber: '-RQgN',

ownerId: 'gNHjNFL12',

},

{

name: 'Highlander',

year: 2017,

price: 202540,

carNumber: 'AZJZ4',

ownerId: 'gNHjNFL12',

},

{

name: 'Corolla',

year: 1996,

price: 5420,

carNumber: 'kHE8f',

ownerId: 'gNHjNFL12',

},

{

name: 'Corolla',

year: 2012,

price: 40570,

carNumber: 'p2qEi',

ownerId: 'gNHjNFL12',

},

],

},

{

brand: 'Ford',

models: [

{

name: 'Explorer',

year: 2014,

price: 127502,

carNumber: 'Ty1zN',

ownerId: 'gNHjNFL12',

},

{

name: 'F350',

year: 2012,

price: 54250,

carNumber: 'z03H2',

ownerId: 'gNHjNFL12',

},

],

},

{

brand: 'Chevrolet',

models: [

{

name: 'Savannah',

year: 2010,

price: 36504,

carNumber: 'RXFZe',

ownerId: 'gNHjNFL12',

},

{

name: 'Malibu',

year: 2009,

price: 19585,

carNumber: 'K5IsM',

ownerId: 'gNHjNFL12',

},

],

},

],

},

{

agencyName: 'Car Werks',

cash: 302502,

credit: 150000,

agencyId: '9KeaYbRLP',

cars: [

{

brand: 'bmw',

models: [

{

name: '8',

year: 2020,

price: 942500,

carNumber: '4IUMz',

ownerId: '9KeaYbRLP',

},

{

name: 'X6',

year: 2010,

price: 129000,

carNumber: 'Vw0fV',

ownerId: '9KeaYbRLP',

},

{

name: 'X3',

year: 2019,

price: 358100,

carNumber: 'ufN54',

ownerId: '9KeaYbRLP',

},

{

name: '3',

year: 2020,

price: 389100,

carNumber: 'F127X',

ownerId: '9KeaYbRLP',

},

{

name: '3',

year: 2002,

price: 18400,

carNumber: 'ueZUp',

ownerId: '9KeaYbRLP',

},

],

},

{

brand: 'toyota',

models: [

{

name: 'Prius',

year: 2011,

price: 38520,

carNumber: 'AZJZ4',

ownerId: '9KeaYbRLP',

},

{

name: 'Land Cruiser',

year: 2019,

price: 290040,

carNumber: 'AZJZ4',

ownerId: '9KeaYbRLP',

},

{

name: 'Hilux',

year: 2020,

price: 215700,

carNumber: 'xig8N',

ownerId: '9KeaYbRLP',

},

{

name: 'Hilux',

year: 2015,

price: 178506,

carNumber: 'ghTiQ',

ownerId: '9KeaYbRLP',

},

{

name: 'Corolla',

year: 2002,

price: 8504,

carNumber: 'Mvw8T',

ownerId: '9KeaYbRLP',

},

],

},

{

brand: 'Chevrolet',

models: [

{

name: 'Impala',

year: 2005,

price: 9320,

carNumber: 'BZpkt',

ownerId: '9KeaYbRLP',

},

{

name: 'Malibu',

year: 2002,

price: 4502,

carNumber: 'KqKV\_',

ownerId: '9KeaYbRLP',

},

],

},

],

},

{

agencyName: 'Carsova',

cash: 72450,

credit: 50000,

agencyId: 'oqQmsZoUo',

cars: [

{

brand: 'bmw',

models: [

{

name: '7',

year: 1999,

price: 24700,

carNumber: 'sZrjp',

ownerId: 'oqQmsZoUo',

},

{

name: '3',

year: 2008,

price: 54000,

carNumber: 'da88K',

ownerId: 'oqQmsZoUo',

},

],

},

{

brand: 'toyota',

models: [

{

name: 'Prius',

year: 2019,

price: 124050,

carNumber: 'ZfbqH',

ownerId: 'oqQmsZoUo',

},

{

name: 'Hilux',

year: 1996,

price: 11540,

carNumber: 'AZJZ4',

ownerId: 'oqQmsZoUo',

},

],

},

],

},

],

customers: [

{

name: 'Lilah Goulding',

id: 'BGzHhjnE8',

cars: [

{

name: 'Corolla',

year: 2013,

price: 40570,

carNumber: '16da1',

ownerId: 'BGzHhjnE8',

},

],

cash: 35000,

},

{

name: 'Ravi Murillo',

id: '2RprZ1dbL',

cars: [

{

name: 'M5',

year: 2019,

price: 578054,

carNumber: 'WIh0U',

ownerId: '2RprZ1dbL',

},

{

name: 'Spider',

year: 2012,

price: 81520,

carNumber: 'RLS4q',

ownerId: '2RprZ1dbL',

},

],

cash: 278542,

},

{

name: 'Aleksander Carr',

id: 'pAuFtn\_WA',

cars: [

{

name: 'Highlander',

year: 2018,

price: 214503,

carNumber: '2WU\_y',

ownerId: 'pAuFtn\_WA',

},

],

cash: 125402,

},

{

name: 'Lana Edge',

id: 'cnTobUDy6',

cars: [

{

name: 'F250',

year: 2020,

price: 198500,

carNumber: 'Xxcy\_',

ownerId: 'cnTobUDy6',

},

{

name: 'Hilux',

year: 2005,

price: 35005,

carNumber: 'VSCUj',

ownerId: 'cnTobUDy6',

},

],

cash: 7000,

},

{

name: 'Nikita Philip',

id: '5x2tMcX4R',

cars: [

{

name: 'Impala',

year: 2016,

price: 65042,

carNumber: 'LKInp',

ownerId: '5x2tMcX4R',

},

],

cash: 40541,

},

{

name: 'Bob Steel',

id: 'Wm6BkA1F0',

cars: [],

cash: 15732,

},

{

name: 'Will Reyes',

id: 'FQvNsEwLZ',

cars: [

{ name: 'X6', year: 2020, price: 966500, ownerId: 'FQvNsEwLZ' },

{

name: 'Land Cruiser',

year: 2020,

price: 336300,

carNumber: 'vaJvd',

ownerId: 'FQvNsEwLZ',

},

{

name: 'Romeo Julia',

year: 2020,

price: 275406,

carNumber: 'qLoYR',

ownerId: 'FQvNsEwLZ',

},

{

name: 'Explorer',

year: 2020,

price: 265200,

carNumber: 'tlGRq',

ownerId: 'FQvNsEwLZ',

},

],

cash: 1547242,

},

],

taxesAuthority: {

totalTaxesPaid: 0,

sumOfAllTransactions: 0,

numberOfTransactions: 0,

},

};

//! agency's func's

//todo getters

//\* getAgencyByName

//? @param {string} - name

//? @return {Object} - agency object

//\* getAgencyIdByName

//? @param {String} - name

//? @return {String} - agencyId

carMarket.getAgencyIdByName = function (name) {

// this.sellers = []

// agency = object of agency or undefine

const agency = this.sellers.find((agencyObject) => {

return name === agencyObject.agencyName;

});

//? if

// if (agency) {

// return agency.agencyId;

// }

// return undefined;

//?

// return agency ? agency.agencyId : agency;

//? conditional abuse

return agency && agency.agencyId;

//! error - return agency.agencyId;

};

// console.log(carMarket.getAgencyIdByName('Best Deal'));

//\* getAllAgenciesName

//? @param {}

//? @return {string[]} - agenciesNameArr - Array of all agencies name

//\* getAllCarToBuy

//? @param {}

//? @return {object[]} - allCarsToBuy - arrays of all cars objects

//\* getAllCarToBuyByAgencyId

//? @param {string} - id of agency

//? @return {object[]} - carsArray - arrays of all models objects of specific agency

//\* getAllBrandsToBuyAgencyId

//? @param {string} - agencyId - id of agency

// ? @return {string[]} - arrOfBrands - arrays of all brands name in specific agency

//! customer func's

//todo getters

//\* getCustomerByName

//? @param {string} - name

//? @return {Object} - customer

//\* getCustomerIdByName

//? @param {name}

//? @return {String} - customerId - The customer id

//\* getAllCustomersNames

//? @param {}

//? @return {string[]} - customersNameArr - Array of all customers name

//\* getAllCustomerCars

//? @param {id} - costumerId - costumer id

//? @return {object[]} - customerCarsArr - Array of all customer cars object

//\* getCustomerCash

//? @param {id} - costumerId - costumer id

//? @return {number} - CustomerCash

//!------------------------------------------------------------

//\* 1) setPropertyBrandToAllCars

//? set all cars model object the current brand

//? @param {}

//? @return {}

//todo Agency setters

//\* setNewCarToAgency

//? @param {string} - id of agency

//? @param {object} - carObject

//? @return {}

//\* deleteCarFromAgency

//? @param {string} - id of agency

//? @param {string} - Car id

// ? @return {}

//\* decrementOrIncrementCashOfAgency

//? @param {string} - agencyId

//? @param {number} - amount - negative or positive amount

// ? @return {number} - agencyCash

//\* decrementOrIncrementCreditOfAgency

//? @param {string} - agencyId

//? @param {number} - amount - negative or positive amount

// ? @return {number} - agencyCash

//\* setAmountOfCarsToBuyToAllAgency's

//? set a new property amountOfCars to all agency's, that represent the amount of cars available in the agency.

//? @param {}

// ? @return {objects[]} - sellers - array of all agency's

//todo setters

//\* setCarToCostumer

//? @param {string} - costumerId

//? @param {object} - carObject

//? @return {object[]} - allCarsOfCostumer

//\* deleteCarOfCostumer

//? @param {string} - costumerId

//? @param {string} - carId

//? @return {object[]} - allCarsOfCostumer

//\* decrementOrIncrementCashOfCostumer

//? @param {string} - costumerId

//? @param {number} - amount - negative or positive amount

// ? @return {number} - costumerCash

//! -------------------------------------------------------

//\* 2) sortAndFilterByYearOfProduction

//? filter and Sort in a Ascending or Descending order all vehicles for sale by year of production.

//? @param {object[]} - arrOfCars - array of cars

//? @param {number} - fromYear - Will display vehicles starting this year

//? @param {number} - toYear - Will display vehicles up to this year

//? @param {boolean} - isAscendingOrder - true for ascending order, false for descending order

//? @return {object[]} - arrayOfModels - array of sorted cars

//\* 3) sortAndFilterByPrice

//? filter and Sort in a Ascending or Descending order all vehicles for sale by price of the cars.

//? @param {object[]} - arrOfCars - array of cars

//? @param {number} - fromPrice - Will display vehicles starting at this price

//? @param {number} - fromPrice - Will display vehicles up to this price

//? @param {boolean} - isAscendingOrder - true for ascending order, false for descending order

//? @return {object[]} - arrayOfModels - array of sorted cars

//\* 4 ) searchCar

//? @param {object[]} - arrOfCars - array of cars

//? @param {number} - fromYear - Will display vehicles starting this year

//? @param {number} - toYear - Will display vehicles up to this year

//? @param {number} - fromPrice - Will display vehicles starting at this price

//? @param {number} - fromPrice - Will display vehicles up to this price

//? optional @param {string} - brand - Look only for cars of this brand

//\* 5 ) sellCar

//? Sell ​​a car to a specific customer

//? @param {string} - agencyId

//? @param {string} - customerId

//? @param {string} - carModel

//? @return {object} - The object of the car purchased by the customer or an explanation message

// \* - 5a. Subtract the vehicle amount + 17% (tax) from the customer's cash.

// \* - 5b. Add the vehicle value to the car agency cash.

// \* - 5c. Change the car owner's id to the customer's id.

// \* - 5d. Remove the car from the array of the agency's car models.

// \* - 5e. Add the car to the client cars array.

// \*

// \* Taxes Authority:

// \* - 5f. Pay 17 percent of the vehicle value to the tax authority. (add the amount to totalTaxesPaid)

// \* - 5g. Increase the number of transactions made in one (numberOfTransactions)

// \* - 5h. Add the vehicle amount + tax to sumOfAllTransactions

// ! - Check that there is the requested vehicle at the agency in not return 'The vehicle does not exist at the agency'

// ! - Check that the customer has enough money to purchase the vehicle, if not return 'The customer does not have enough money'

//! - Try to divide the tasks into several functions and try to maintain a readable language.