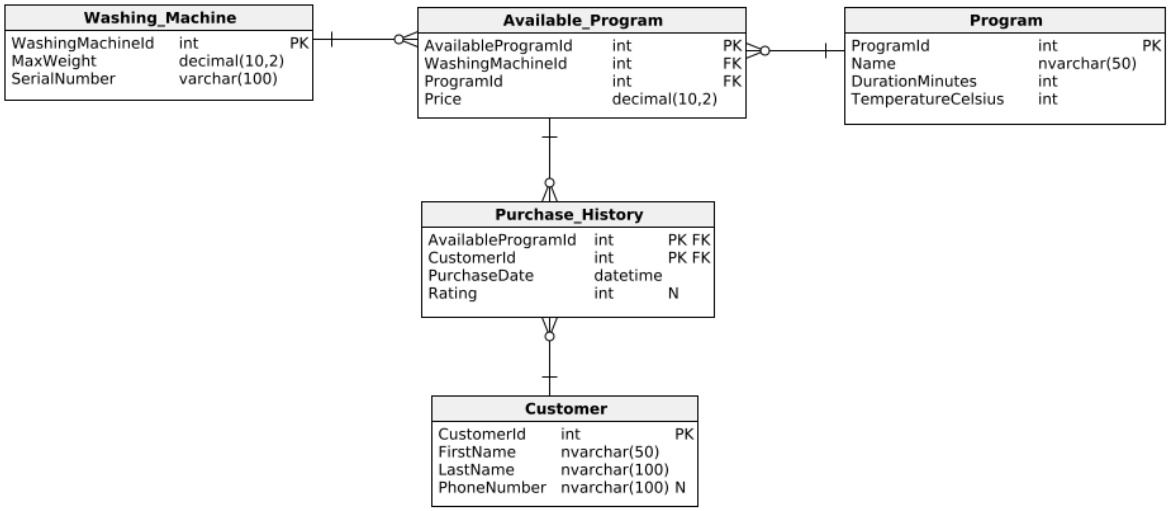
Test 2A

In this task, you are required to design a web API application with the use of **EF** in **CodeFirst** approach.

Database

The database we are using is presented below.

Add **example data** for each table.



Vertabelo

Endpoints

Design an endpoint that returns information about purchases for specified customer.

The endpoint should respond to requests at the address
/api/customers/{customerId}/purchases np.
HTTP GET http://localhost:5000/api/customers/1/purchases

Example data that will be returned:


```
{
    "firstName": "John",
    "lastName": "Doe",
    "phoneNumber": null,
    "purchases": [
        {
            "date": "2025-06-03T09:00:00",
            "rating": 4,
            "price": 33.4,
            "washingMachine": {
                "serial": "WM2012/S431/12",
                "maxWeight": 32.23
            },
            "program": {
                "name": "Quick Wash",
                "duration": 69
            }
        },
        {
            "date": "2025-06-04T09:00:00",
            "rating": null,
            "price": 48.7,
            "washingMachine": {
                "serial": "WM2014/S491/28",
                "maxWeight": 52.23
            },
            "program": {
                "name": "Cotton Cycle",
                "duration": 143
            }
        }
    ]
}
```

Design an endpoint that allows adding a new washing machine along with its available programs.

- The price of a given program must not exceed 25,
- The maximum allowable weight must not be less than 8.

The endpoint should respond to a request at the address /washing-machines, for example.

HTTP POST http://localhost:5000/washing-machines

Example data sent with the request:

```
{
  "washingMachine": {
    "maxWeight": 9.52,
    "serialNumber": "WM2025/S1431/13"
  },
  "availablePrograms": [
    {
        "programName": "Quick Wash",
        "price": 12.99
    },
    {
        "programName": "Cotton Cycle",
        "price": 17.29
    },
    {
        "programName": "Synthetic",
        "price": 23.99
    }
  ]
}
```

The endpoint should return the appropriate status in the following cases:

- A washing machine with the given serial number exists,
- A program with the specified name does not exist,
- The data does not pass validation.

Notes

- A program that does not compile - **0 points**
- Test has to be solved with **CodeFirst** approach
- No migrations - **0 points**
- Solved test without example data: **-50%**
- A program that is not in a GitHub repository - **0 points**
- A program that is plagiarized – **grade 2 (fail) as final score**
- Missing .gitignore file or unnecessary files in repository: **- 50%**
- AI – **grade 2 (fail) as final score**