

Backend developer assignment

Implement an application which aims to provide the historical trend of oil price.

The application shall provide a JSON-RPC method named `GetOilPriceTrend` over HTTP.

The method shall accept the following parameters:

- **startDateISO8601**, the starting date of the period to retrieve data from, in ISO 8601 format (e.g. 2000-12-25)

- **endDateISO8601**, the ending date of the period to retrieve data from, in ISO 8601 format (e.g. 2001-01-20)

The response should be a list of data points representing the price for each day included in the period.

Example request payload

```
{
  "id": 1,
  "jsonrpc": "2.0",
  "method": "GetOilPriceTrend",
  "params": {
    "startDateISO8601": "2020-01-01",
    "endDateISO8601": "2020-01-05"
  }
}
```

Example response payload

```
{
  "jsonrpc": "2.0",
  "id": 1,
  "result": {
    "prices": [
      {
        "dateISO8601": "2020-01-01",
        "price": 12.3
      },
      {
        "dateISO8601": "2020-01-02",
        "price": 13.4
      },
      {
        "dateISO8601": "2020-01-03",
        "price": 14.5
      },
      {
        "dateISO8601": "2020-01-04",
        "price": 16.7
      },
      {
        "dateISO8601": "2020-01-05",
        "price": 18.9
      }
    ]
  }
}
```

You can find the historical price of Europe Brent at this address <https://datahub.io/core/oilprices/r/brent-daily.json>

Constraints

- Use C#, VB.Net
- Publish your project to an accessible git source code repository
- Provide clear instructions on how to run your project through a README file

Bonus Points

- Usage of C#
- Usage of .Net Core 3.1 or higher
- Docker containerization
- Automated tests
- Dynamically retrieve the data file during application startup time

Notes

- There is no limit on usage of frameworks