

.NET Coding Task

Cities in your country allow people to sell goods throughout the year. Cities require people to pay a percentage tax from the profit made. Each city has a schedule of taxes applicable on any given day. Taxes can be set up in various ways. There are categories of taxes that cities use. Yearly, Monthly, Weekly and Daily. Create a small .NET Core API application which allows users to see taxes applied in their city, on any given day.

For example, Kaunas has its taxes scheduled like this:

- Yearly tax = 3.3 (2024.01.01 - 2024.12.31)
- Monthly tax = 5 (2024.06.01 – 2024.06.30)
- Monthly tax = 4 (2024.07.01 – 2024.07.31)
- Monthly tax = 6 (2024.08.01 – 2024.08.31)
- Weekly tax = 2.5 (2024.02.09 – 2024.02.15)
- Weekly tax = 2.5 (2024.03.02 – 2024.03.08)
- Daily tax = 1.5 (2024.06.01)
- Daily tax = 1.2 (2024.10.23)

The result according to provided example would be:

City (Input)	Date (Input)	Result
Kaunas	2024.01.01	3.3
Kaunas	2024.02.11	2.5
Kaunas	2024.06.01	1.5
Kaunas	2024.06.02	5

Requirements:

- It has its own database where city taxes are stored.
- API has ability to:
 - Insert new records for rules of taxes for given periods. (Admin role)
 - Update existing tax rates and dates for already existing records. (Admin role)
 - Delete existing records. (Admin role)
 - Provide a list of all the cities for the end user. (any role)
 - Provide a schedule of taxes of a chosen city. (any role)
 - Provide a tax rate on a specific date of a chosen city. (any role)
- Error handling
- Unit tests

No need for UI, you can use postman and send the collection used for testing.

No need for complex Role management, logins, tokens, or authorization. You can use http headers with values "Admin" and "User" to determine the role of incoming request.

If some of the requirements are not clear, make your own assumptions and document them in code comments.

Please send us a github repository link once you are finished.