

C# Developer Test Tasks

Please implement tasks in a new asp.net core project and map each of the question execution to a controller action (you can choose naming, format of inputs/outputs) so it can be ran just by calling some urls on the project.

Add a Dockerfile to the project, so it can be built and ran inside a docker container.

1. Please invert the following text:

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

2. Given a function A, that runs a loop of 1...1000 and emitting some data (can be a number from 1 to 1000) and it needs to pass this data to a second function B that has a processing delay of this data of 0.1 second and returns true, when it has finished processing the data. Write code that will allow A to work as fast as it can without blocking, but still make sure, that B has processed all of the data (of course, after B has finished).

Choose any pattern as you wish, can be events/direct calls, any other solution you can think of.

3. Using any of these files (or you can choose your own): [Test Files \(hetzner.de\)](#) Calculate a SHA hash (in hex form) without loading the files into memory.

4. Given the 2 queries in the link below. Please write a function that fetches all the assets and then fetches the prices for top 100 of them in batches of 20 (e.g. total is 100, do 20 at the same time, another 20 and so on).

[Blocktap Query Explorer](#)

Hint: You can see the queries that this explorer makes using the browser developer tools network tab.