Horizon Broadband Assignment

The current exercise aims to evaluate your knowledge of one of our preferred backend languages.
Qualifications you may have or will develop are:

● Typescript, Testing, Microservices, Monoliths
● Knowledge of git
● Familiarity with continuous integration and Cloud

Write an API that takes two inputs from the web-service that offers an endpoint taking the following input:

● a set of include intervals
● a set of exclude intervals

The sets of intervals can be given in any order, and they may be empty or overlapping. The program
should output the result of taking all the includes and "remove" the excludes. The output should be given
as non overlapping intervals in a sorted order. The intervals will contain integers only.

Example 1:
Includes: 10-100
Excludes: 20-30
Output should be: 10-19, 31-100
Example 2:
Includes: 50-5000, 10-100
Excludes: (none)
Output: 10-5000

Example 3:
Includes: 200-300, 50-150
Excludes: 95-205
Output: 50-94, 206-300
Example 4:
Includes: 200-300, 10-100, 400-500
Excludes: 410-420, 95-205, 100-150

Output: 10-94, 206-300, 400-409, 421-500

The things we will look for in the evaluation of this test are:

● Does the API work as described in the specification? Is it bugfree?
● The overall design of your solution
● Is the code easy to read and maintain?
● What is the complexity of your algorithm? (BigO notation)
● Is the code documented and ready for production?

The case can be delivered via your GitHub account or other source control repository, or as a compressed archive sent through e-mail.

Rules:
No code from chatgpt or any AI tools allowed.
Do not publish this to a public repository or a public forum.