Task description-

Write a software program that downloads a source URL/s html and the html of URL/s appearing in the resulting page/s. The program should accept 4 arguments:

1. The URL to start the process with.
2. The maximal amount of different URLs to extract from the page.
3. How deep the process should run (depth factor).
4. Boolean flag indicating cross-level uniqueness.

Store each page downloaded to a file, naming convention should be '<depth>/<url>.html' – meaning each depth should have its' htmls stored in a separate folder – If needed, replace any characters not allowed for file names with an underscore.

Example Url: https://www.ynetnews.com/ , maximum: 5, depth factor: 2, uniqueness: true.

Depth 0:
The program should fetch and save the source URL content to 0/www_ynetnews_com.html, extract 5 new URLs from it and fetch them in the next level.

Depth 1:
The program should fetch and save the html content of the 5 URLs from depth 0, save them to 1/<file-name>.html, and extract up to 5 new and different URLs from each html to fetch in the next level. (Since the uniqueness flag is true, the URLs should be different from those found in depth 0 as well as those already found)

Depth 2:
The program should fetch up to 5*5 URLs from depth 1, save their html content to 2/<file-name>.html, and terminate.

*Please consider implementing a solution that will include a proper design, oop, and scalability/performance.
Please upload solution to GITHUB.