Task description

Write a simple Java program that downloads a source 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 number of different URLs to extract from the page.
3. How deep should the process run (depth factor).
4. Boolean flag indicating cross-level uniqueness.

Store each page downloaded to a file, naming convention should be '<depth>/<url>.html' - (replace any characters needed 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 5 URLs from depth 0, extract up to 5 new and different URLs and fetch them in the next level. (since the uniqueness flag is true, the URLs should be different from those found in depth 0 as well)

Depth 2:
The program should fetch and save up to 5*5 URLs from depth 1, save their content, and terminate.

Requirements

- Use Gradle(groovy) to compile your code.
- Use Multithreading when needed.
- Use Java 21.
- When the application finishes it should shut down gracefully.