**Java exam**

**Task description**

Write a simple java 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 maximum number of different URLs to extract from the page.
3. How deep the process should run (depth factor).
4. A 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**

Inputs- URL: [https://www.ynetnews.com](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.

**Requirements**

* Use Gradle to compile your code.
* Use **Multithreading** where it is beneficial
* Use Java 11 or above.
* When the application finishes it should shut down.