

```

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.chrome.ChromeOptions;

import java.io.FileWriter;
import java.io.IOException;
import java.util.HashSet;
import java.util.LinkedList;
import java.util.List;
import java.util.Queue;
import java.util.Set;

public class WikiLinkScraper {
    private static final int MAX_LINKS_PER_PAGE = 10;

    public static void main(String[] args) {
        // Initialize WebDriver
        System.setProperty("webdriver.chrome.driver", "path/to/chromedriver");
        ChromeOptions options = new ChromeOptions();
        options.addArguments("--headless"); // Run headless Chrome
        WebDriver driver = new ChromeDriver(options);

        // Inputs
        String url = "https://en.wikipedia.org/wiki/Selenium_(software)";
        int cycles = 2;

        if (!isValidWikiLink(url)) {
            System.err.println("Invalid Wikipedia link provided.");
            driver.quit();
            return;
        }

        // Data structure to store unique links
        Set<String> visitedLinks = new HashSet<>();
        Queue<String> linkQueue = new LinkedList<>();
        linkQueue.add(url);
        visitedLinks.add(url);

        // Main scraping process
        for (int i = 0; i < cycles; i++) {
            int currentQueueSize = linkQueue.size();
            for (int j = 0; j < currentQueueSize; j++) {

```

```

String currentUrl = linkQueue.poll();
driver.get(currentUrl);

List<WebElement> links = driver.findElements(By.cssSelector("a[href^='/wiki/']"));
int linksAdded = 0;
for (WebElement link : links) {
    if (linksAdded >= MAX_LINKS_PER_PAGE) break;
    String href = link.getAttribute("href");
    if (href != null && !visitedLinks.contains(href)) {
        visitedLinks.add(href);
        linkQueue.add(href);
        linksAdded++;
    }
}
}
}

// Write results to a JSON file
try (FileWriter file = new FileWriter("results.json")) {
    file.write("{\n");
    file.write("  \"totalCount\": " + visitedLinks.size() + ",\n");
    file.write("  \"uniqueCount\": " + visitedLinks.size() + ",\n");
    file.write("  \"links\": [\n");
    int count = 0;
    for (String link : visitedLinks) {
        file.write("    \"" + link + "\"");
        if (++count < visitedLinks.size()) {
            file.write(",\n");
        }
    }
    file.write("\n  ]\n");
    file.write("}\n");
} catch (IOException e) {
    e.printStackTrace();
}

// Clean up
driver.quit();
}

private static boolean isValidWikiLink(String url) {
    return url.startsWith("https://en.wikipedia.org/wiki/");
}
}

```

