```
import java.util.HashMap;
import java.util.Map;
import java.util.Scanner;

public class LinkShortener {
    private Map<String, String> shortToLongMap;
    private Map<String, String> longToShortMap;

    public LinkShortener() {
        this.shortToLongMap = new HashMap<>();
        this.longToShortMap = new HashMap<>();
    }

    public String shortenUrl(String longUrl) {
        if (longToShortMap.containsKey(longUrl)) {
            return longToShortMap.get(longUrl);
        }

        String shortUrl = generateShortUrl();
        shortToLongMap.put(shortUrl, longUrl);
        longToShortMap.put(longUrl, shortUrl);
        return shortUrl;
    }

    public String expandUrl(String shortUrl) {
        if (!shortToLongMap.containsKey(shortUrl)) {
            throw new IllegalArgumentException("Invalid short URL");
        }

        return shortToLongMap.get(shortUrl);
    }

    private String generateShortUrl() {
        // Implement a basic hash function for generating short URLs
        return String.valueOf(shortToLongMap.size() + 1);
    }

    public static void main(String[] args) {
        LinkShortener linkShortener = new LinkShortener();
        Scanner scanner = new Scanner(System.in);

        while (true) {
            System.out.println("Enter a long URL to shorten (or 'exit' to quit):");
            String input = scanner.nextLine();

            if ("exit".equalsIgnoreCase(input)) {
                break;
            }
            String shortUrl = linkShortener.shortenUrl(input);
            System.out.println("Shortened URL: " + shortUrl);

            System.out.println("Enter a short URL to expand (or 'exit' to quit):");
            input = scanner.nextLine();

            if ("exit".equalsIgnoreCase(input)) {
                break;
            }

            try {
                String expandedUrl = linkShortener.expandUrl(input);
                System.out.println("Expanded URL: " + expandedUrl);
            } catch (IllegalArgumentException e) {
                System.out.println("Error: " + e.getMessage());
            }
        }

        scanner.close();
    }
}
```