

NAÏVE PATTERN SEARCH

```
public class NaivePatternSearch {

    public static void naivePatternSearch(String text, String pattern) {

        int textLength = text.length();

        int patternLength = pattern.length();

        int comparisons = 0;

        for (int i = 0; i <= textLength - patternLength; i++) {

            int j;

            for (j = 0; j < patternLength; j++) {

                comparisons++;

                if (text.charAt(i + j) != pattern.charAt(j)) {

                    break;

                }

            }

            if (j == patternLength) {

                System.out.println("Pattern found at index " + i);

            }

        }

        System.out.println("Total comparisons made: " + comparisons);

    }

    public static void main(String[] args) {

        String text = "AABAACAADAABAAABAA";

        String pattern = "AABA";

    }

}
```

```
naivePatternSearch(text, pattern);
```

```
}
```

```
}
```

```
0
7 public static void naivePatternSearch(String text, String pattern) {
8     int textLength = text.length();
9     int patternLength = pattern.length();
10    int comparisons = 0;
11
12    for (int i = 0; i <= textLength - patternLength; i++) {
13        int j;
14        for (j = 0; j < patternLength; j++) {
15            comparisons++;
16            if (text.charAt(i + j) != pattern.charAt(j)) {
17                break;
18            }
19        }
20        if (j == patternLength) {
21            System.out.println("Pattern found at index " + i);
22        }
23    }
24    System.out.println("Total comparisons made: " + comparisons);
25 }
26
27 public static void main(String[] args) {
28
29     String text = "AABAACAADAABAAABAA";
30     String pattern = "AABA";
31     naivePatternSearch(text, pattern);
32
33 }
```

input

```
Pattern found at index 0
Pattern found at index 9
Pattern found at index 13
Total comparisons made: 35
```