Z_ALGORITHM EXECUTION

INPUT : z_algo.txt


```
z_algo.txt                    ×    +
File    Edit    View

abbadcaddbaccdabcabaacacb
```
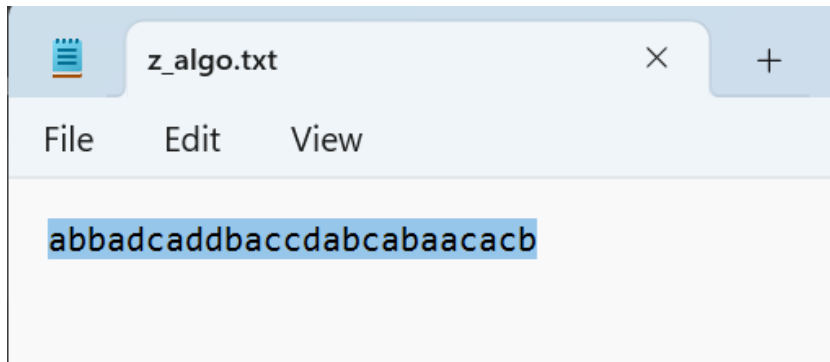
Best Case Scenario :

- **Input :** A short text file containing a pattern that appears at the beginning.
- **Expected Output:** Pattern found at index 0


```
In [2]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_algo.txt
Enter the pattern: abba
Pattern found at index: 0
```

Worst Case Scenario:

- **Input** : A large text file containing a pattern that doesn't exist
- **Expected Output:** No pattern found.

```
In [4]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_algo.txt
Enter the pattern: abs
Pattern Not Found
```

Corner Cases:

Empty File
- **Input:** An empty text file.
- **Expected Output :** Pattern Not Found.

```
In [6]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_algo.txt
Enter the pattern: abba
Pattern Not Found
```

NO TEXT FILE FOUND
- **Input:** No file such file exists.
- **Expected Output:** Error in opening the file.

```
In [7]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_glo.txt
Error opening file.
```

Pattern Length > Text Length
- **Input:** A text file with shorter content than the pattern.
- **Expected Output:** No pattern found

```
In [8]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_algo.txt
Enter the pattern: abbadcaddbaccdabcabaacacba
Pattern Not Found
```

Empty Pattern

- **Input:** A text file with some content and an empty pattern.
- **Expected Output:** No pattern found

```
In [9]: runfile('C:/Users/A1/Desktop/Z_Algorithm/
PYTHON_IMPLEMENTATION/z_algo.py', wdir='C:/Users/A1/Desktop/
Z_Algorithm/PYTHON_IMPLEMENTATION')
Enter the filename: z_algo.txt
Enter the pattern:
Empty Pattern
```