Nama : Addina Nabilah Siregar

NIM : 211401140

UAS Lab 6 Desain & Analisis dan Algoritma

Buatlah kata-kata acak (minimal 50 karakter), lalu cari kata-kata dalam kata-kata acak yang telah di buat. Lakukan dengan algoritma Knuth Morris-Pratt, buktikan ketika tidak ditemukan dan buktikan ketika telah ditemukan. Buatlah gambarannya secara manual seperti di modul!

TEXT :

DGACNEFGDINNAFNKCJDINNASHIJKLBDINNANEKVNEDIDINNAHJ

PATTERN :

DINNA

LENGTH dari PATTERN yang akan dicari:

5

Buat tabel KmpNext dari PATTERN (kata yang mau dicari)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| D | I | N | N | A |
| -1 | 0 | 0 | 0 | 0 |

Melakukan pencarian

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
| D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Walaupun huruf index ke-0 sudah sesuai (D), namun dikarenakan huruf index ke-1 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 1 – KmpNext[1] = 1– (-0) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena pattern ditemukan maka posisi ditemukannya pattern adalah 8, sehingga pencarian bergeser sebanyak length pattern, yaitu 5

i – KmpNext[i] = 5 – 0 = 5 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena pattern ditemukan maka posisi ditemukannya pattern adalah 18, sehingga pencarian bergeser sebanyak length pattern, yaitu 5

i – KmpNext[i] = 5 – 0 = 5 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Karena pattern ditemukan maka posisi ditemukannya pattern adalah 30, sehingga pencarian bergeser sebanyak length pattern, yaitu 5

i – KmpNext[i] = 5 – 0 = 5 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |  |

Karena huruf index ke-0 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 0 – (-1) = 1 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |  |  |

Walaupun huruf index ke-0 DAN 1 sudah sesuai (D, I), namun dikarenakan huruf index ke-2 tidak sesuai, maka digeser sebanyak: i – KmpNext[i] = 2 – KmpNext[2] = 2– (-0) = 2 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |  |  |

Karena pattern ditemukan maka posisi ditemukannya pattern adalah 43, sehingga pencarian bergeser sebanyak length pattern, yaitu 5

i – KmpNext[i] = 5 – 0 = 5 kotak

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| D | G | A | C | N | E | F | G | D | I | N | N | A | F | N | K | C | J | D | I | N | N | A | S | H | I | J | K | L | B | D | I | N | N | A | N | E | K | V | N | E | D | I | D | I | N | N | A | H | J |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | D | I | N | N | A |

Karena panjang pattern sudah melewati panjang string yang mau dicari, maka proses pencarian akan berhenti dan didapatkan pattern DINNA pada text sebanyak 4 kali pada index ke 8, 18, 30, dan 43.