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NIM : 211401099

Kelas : C

LAB : DAA-6

**Algoritma Knuth-Morris-Pratt**

Mencari kata “BAMBAN” di dalam kata “BAMNBANMNABNAMNBANMBBAMBANBAMNABMANBAMNABNMABMBAMB”

Rule

1. Prefix: For a string, all substrings from first character to non-last-character are prefixs of it. in above case "B" , "BA" , "BAM" , "BAMB" , "BAMBA" are prefixs of PATTERN
2. Suffix: For a string, all substrings from non-first-character to last character are suffixs of it. in above case "AMBAN" , "MBAN" , "BAN" , "AN" , "N" are suffix of PATTERN
3. Match value: For a string, the match value is the length of longest substring in intersection of it's prefixs and suffixs.
4. Compare from first character of PATTERN

* if no any match then move PATTERN to next position
* If partly matched then "PATTERN move distance" = "matched characters length" - "Match value of matched characters

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| B | A | M | B | A | N |
| 0 | 0 | 0 | 1 | 2 | 0 |
| 1 | 2 | 3 | 3 | 3 | 6 |

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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
| B | A | M | B | A | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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|  |  |  | B | A | M | B | A | N |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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| B | A | M | N | B | A | N | M | N | A | B | N | A | M | N | B | A | N | M | B | B | A | M | B | A | N | B | A | M | N | A | B | M | A | N | B | A | M | N | A | B | N | M | A | B | M | B | A | M | B |
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ABESSs..