

## **Data Structures & Algorithms III– SCS 2201**

### **String Matching Assignment**

**Index: 19000197**

#### **Algorithms selection**

Boyer-Moore-Horspool algorithm is the algorithm used in the solution. We can use Naïve string matching also. But Boyer-Moore-Horspool algorithm is more efficient than the Naïve algorithm. KMP or Rabin-Karp Algorithm gives the same or worst efficiency than the naïve algorithm.

#### **How this works**

Boyer-Moore-Horspool algorithm,

1. uses the bad-character heuristics of the Boyer-Moore Algorithm to determine the shift distance
2. The pattern will be shifted until the rightmost character of string in the matches
  - i. the exact character in pattern or
  - ii. the wild card

if both the character and wildcard exist in the pattern, take the minimal distance from them.