LAB 11: String Algorithms

CS211 – Data Structures and Algorithms
Usman Institute of Technology
Fall 2020

- **How to submit:**
  - Online: Submit on your respective MS Teams.

A. Create a class StringOP in order to implement string algorithms.

1. Add a constructor of the class that takes one argument data which initializes the string.

```
class StringOP:
    def __init__(self,data):
        // your code goes here
```

2. Add a function StrLength() which takes a string value as a parameter and returns the length of the string.

```
    def StrLength(self):
        // your code goes here
```

3. Add a function StrConcat() which takes two strings as parameters and returns the concatenated in string.

```
    def StrConcat(self,string1,string2):
        // your code goes here
```

4. Add a function SubString() which takes a string, a starting index and an ending index as parameters and returns a substring consisting of elements between those indices.

```
    def SubString(self,text,start,end):
        // your code goes here
```

5. Add a function InsertStr() which takes a string data, string text and position as parameters and returns a string by inserting the text string in data string at given position.

```
    def InsertStr(self,data,text,pos):
        // your code goes here
```

6. Add a function DeleteStr() which takes a data string, an index from which the element is to be deleted and length of elements to be deleted as parameters and returns a resulting string.

```
    def DeleteStr(self,data,pos,length):
        // your code goes here
```

7. Add a function Naive() which takes a data string and a pattern as parameters. The function checks if pattern is the substring of the data and returns the index from which the pattern is started in the data.

```
    def Naive(self,data,pattern):
        // your code goes here
```