## Artificial Intelligence and Machine Learning

Project Report

Semester-IV (Batch-2022)

**Case Study**: - String Methods

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**Supervised By: Submitted By:**

Rajeev Thakur Vansh Garg

Roll Number - 2210990936

Group - 14

**Department of Computer Science and Engineering**

## Chitkara University Institute of Engineering & Technology,

## Chitkara University, Punjab

**Description about Case Study: -**

* Read the Technologies Dataset
* Convert lowercase column using str.lower()
* Convert lowercase column using apply()
* Convert lowercase column using apply() and lambda function
* Convert pandas column to lowercase using map()
* Convert column to uppercase
* Find the length of string
* Use the str.strip() method.
* Use the str.split() method.
* Use the str.contains() method.
* Use the str.replace() method.
* Use the str.startswith() method
* Use the str.endswith() method
* Use the str.cat() method
* Use the str.get() method
* Use the str.slice() method
* Use the str.find() method

**Library: -**

* Pandas

**Methods: -**

1. **str.lower() :** Description:This method returns a copy of the string with all its characters converted to lowercase.
2. **Apply Method :** Description: This method is a function used to apply a function along an axis.
3. **Map() :** Description: It applies a given function to all items in an iterable (like a list) and returns an iterator that yields the results.
4. **Str.len() :** Description: Used to get the length of string.
5. **Str.strip() :** Description: Returns a copy of string with leading and trailing whitespaces removed.
6. **str.split():**Description: It splits a string into a list of substrings based on a specified separator.
7. **str.contains():** Description: It is used for string matching operations on Series and Indexes.
8. **str.replace():** Description(): This method returns a copy of the string with all occurrences of a specified substring replaced with another substring.
9. **str.startswith():** Description: This method returns **True** if the string starts with the specified prefix; otherwise, it returns **False**.
10. **str.endswith():** Description: This method returns **True** if the string ends with the specified suffix; otherwise, it returns **False**.
11. **str.cat():** Description: This method concatenates strings in a series with a given separator.
12. **str.get():** Description: Used to get the element at a specified position in each string of a string column.
13. **str.slice():** Description**:** Used to extract a substring from each element **str[start:end]**

**14.** **str.find():** Description: This method is used to find element. It returns index where found. If not found, it returns -1.