## Artificial Intelligence and Machine Learning

Project Report

Semester-IV (Batch-2022)

**Case Study**: - String Methods.

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**Description about Case Study: -**

* Convert lowercase column , use str.lower()
* Convert lowercase column, use apply()
* Use apply() & lambda function
* 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.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.

1. **str.len():**

**Description:** This is not a method of string objects in Python. Instead, you would use **len()** function to get the length of a string.

1. **str.strip():**

**Description :** This method returns a copy of the string with leading and trailing whitespace removed.

1. **str.split():**

**Description:** This method splits a string into a list of substrings based on a specified separator.

1. **str.contains():**

**Description:** This method is not a built-in method for Python strings. However, it is a method in the pandas library used for string matching operations on Series and Indexes.

1. **str.replace():**

**Description():**This method returns a copy of the string with all occurrences of a specified substring replaced with another substring.

1. **str.startswith():**

**Description:** This method returns **True** if the string starts with the specified prefix; otherwise, it returns **False**.

1. **str.endswith():**

**Description:** This method returns **True** if the string ends with the specified suffix; otherwise, it returns **False**.

1. **str.get():**

**Description:** This method is not a standard method for Python strings. However, it might refer to the **.get()** method used with dictionaries to retrieve a value for a given key.

1. **str.slice():**

**Description:** This is not a method for Python strings. Instead, you would typically use slicing syntax like **str[start:end]** to extract a portion of the string.

1. **str.find():**

**Description:** This method returns the lowest index in the string where the specified substring is found. If the substring is not found, it returns -1.