SAVEETHA AUTONOMOUS ENGINEERING COLLEGE
Affiliated to Anna University | Approved by AICTE

19CS407 – Theory of Computation

Topic	**Demonstrate the use of Regular Expression in various applications.**
Overview of the Topic	The language accepted by finite automata or Regular language is described by Regular Expressions. Formal Definition ϕ is a regular expression denote empty set ε is a regular expression denote $\{\varepsilon\}$ For each a $\in \Sigma$, a is a regular expression denote regular set {a} Let r and s be regular expression then r/s, r.s, r* is also a regular expression. Regular expression is used to recognize pattern in search. Some applications are listed below • Extracting emails from a Text Document • Regular Expressions for Web Scraping (Data Collection) • Working with Date-Time features • Using Regex for Text Pre-processing (NLP) • Regular expression in Unix (grep commands) • Lex and Flex analyzer in compiler
Teaching Method	Demonstrate the applications by simple python program. Example: 1. Write a python program to extracting Emails from text 2. Write a python program to extract date in a sentence
Proof for the activity	**Click here**
Feedback from the students about the activity and Knowledge gained	Students are learned the basics of regular expression in natural language processing.
Outcome of the activity	Students are able to use regular expression in various applications.