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| **Course Name:** | **Theory of Automata** | **Semester:** | **V** |
| **Date of Performance:** | **29 / 07 / 2024** | **Batch No:** | **B - 1** |
| **Faculty Name:** | **Prof. Amrita Naiksatam** | **Roll No.:** | **16014022050** |
| **Faculty Sign & Date:** |  | **Grade / Marks:** | **\_\_\_ / 25** |

**Tutorial 2 - NFA**

**Code:**

def validate\_string(input\_string):

    if not all(char in 'ab' for char in input\_string):

        return "Rejected: The string can only contain 'a' and 'b'."

    if not input\_string.startswith(('a', 'b')):

        return "Rejected: The string must start with 'a' or 'b'."

    if input\_string.count('b') > 1 or (input\_string.count('b') == 1 and input\_string[-1] != 'b'):

        return "Rejected: The string can have at most one 'b' and it must be the last character."

    return "Accepted"

def main():

    print("\nketaki mahajan / B1 / 16014022050")

    num\_inputs = int(input("\nEnter the number of strings you want to input: "))

    input\_strings = []

    for i in range(num\_inputs):

        input\_string = input(f"Enter string {i + 1}: ")

        input\_strings.append(input\_string)

    print("\nResults:")

    for input\_string in input\_strings:

        result = validate\_string(input\_string)

        print(f"String '{input\_string}' is {result}")

if \_\_name\_\_ == "\_\_main\_\_":

    main()

**Output Screenshot:**

