ACTIVITY #2

File name: A10_ACT2_yourname

INTRODUCTION:

In this programming exercise, you will work into the concept of Mealey machines. Your task is to create a Mealey machine simulator

Designing Mealey Machine States and Transitions

- Define a set of states for a Mealey machine scenario.
- Specify transitions between states based on inputs.

Simulator Architecture

- Choose a programming language of your preference (Python, Java, C++) for the creation of the code.
- Design the core classes or functions responsible for representing states, inputs, outputs, and transitions.
- Implement a mechanism to execute transitions based on inputs.
- Implement a user interface allowing users to input sequences of values for the Mealey machine's inputs.
- Display the corresponding output generated by the Mealey machine.

SAMPLE INPUT/OUTPUT:

States: A, B

Inputs: 0, 1

Outputs: X, Y

Transitions:

Current State	Input	Next State	Output
A	0	B	Y
A	1	A	X
B	0	B	Y
B	1	A	X

Input Sequence: 0101

Output Sequence: YXYX