Assignment 2

1. Consider the following nondeterministic finite automata:

Inputs / States	0	1	ε
A	{A, C}	{A}	
B	{B}	{B, D}	{A}
C	{C, B}	{C}	
D			

where state A is the start state and state D is the final state. The blank entry in the table represents the empty set.

(1) Draw its transition diagram according to the transition table.

(2) Simulate this NFA using the ε–closure and move functions with respect to the input strings 01010 and 01101. (請參閱投影片 pp.65~68 and 71)

2. Consider the following deterministic finite automaton,

Inputs / States	0	1
A	D	A
B	C	B
C	C	B
D	C	D

where state A is the start state and state B is the final state.

(1) Draw its transition diagram according to the transition table.

(2) Simulate this DFA using the move function with respect to the input strings 01101. (請參閱投影片 pp.81 and 82)

Deadline: March 21, 2022