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$= \{P_1, P_2, P_3\}$

BP

⇒ Convert the following NFA to DFA :-

A lot of people are here. The people list shows them all. View all

B128 ROHAN SVNIT

B100 ADITYA RAJ SVNIT

B092 Shivam Jani SVNIT

B113 SHIVAKSH KADGE ...

B096 SNEHARSH BELSA...

B108 OZA DHAIRYA MA...

Dr. Balu L. Parne SVNIT

24 others

You

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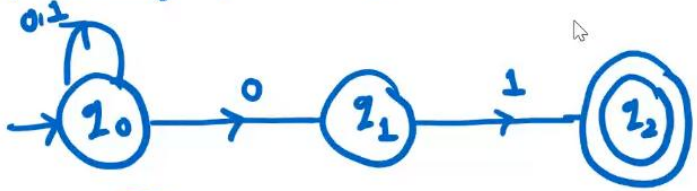
$\delta((q_0q_2),1) = \delta(q_0,1) \cup \delta(q_2,0)$

$= [q_1] \cup [q_0q_2] = [q_0q_1q_2]$

→ Convert the following NFA to DFA :-



$Q = 2^3 = 8 = \{\phi, [q_0, q_1, q_2, q_0q_1, q_0q_2, q_1q_2, q_0q_1q_2]\}$

B128 ROHAN SVNIT

B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

B108 OZA DHAIRYA MA...

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24 others

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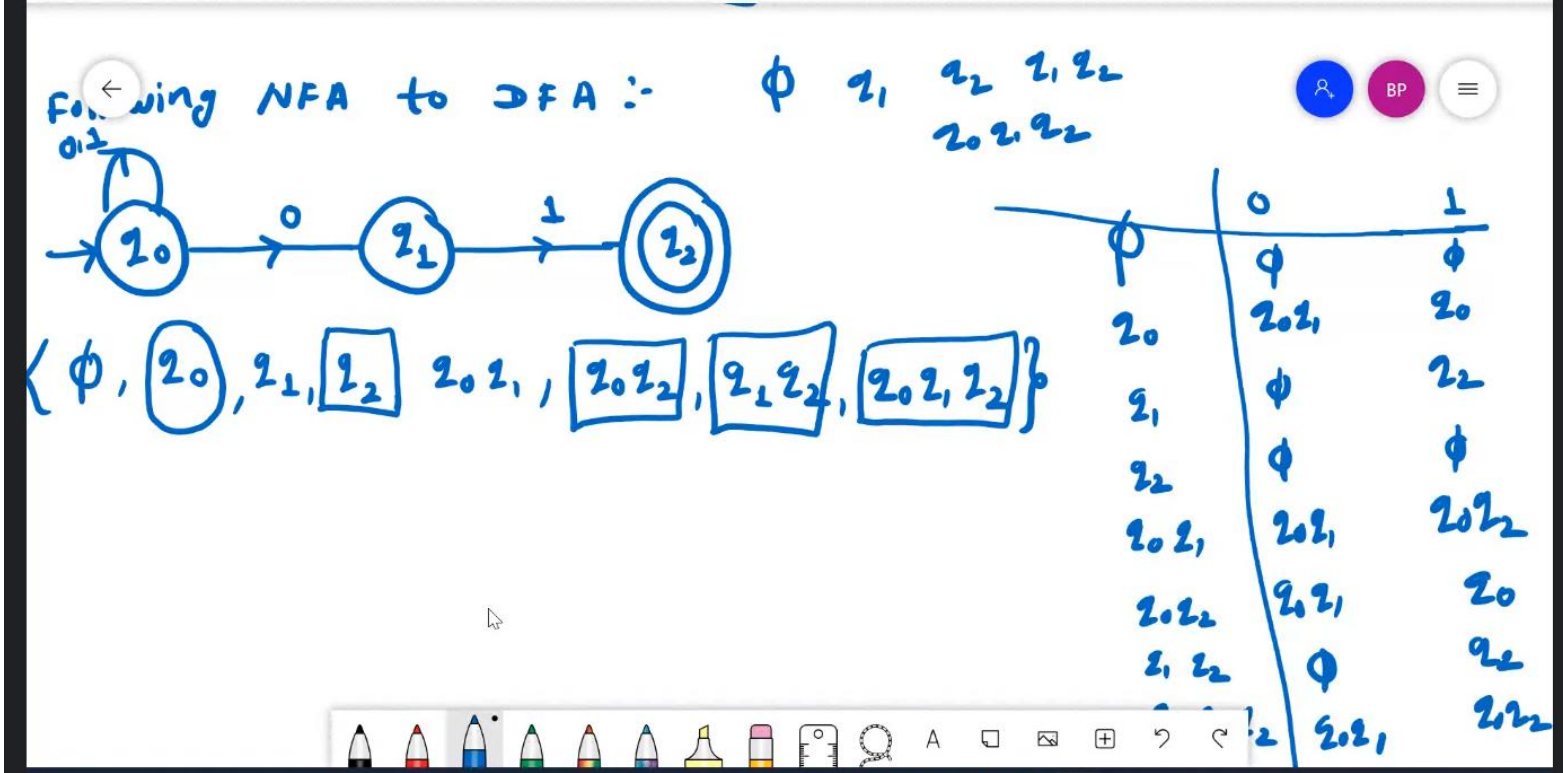

B128 ROHAN SVNIT

B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

B108 OZA DHAIRYA MA...

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26 others

You

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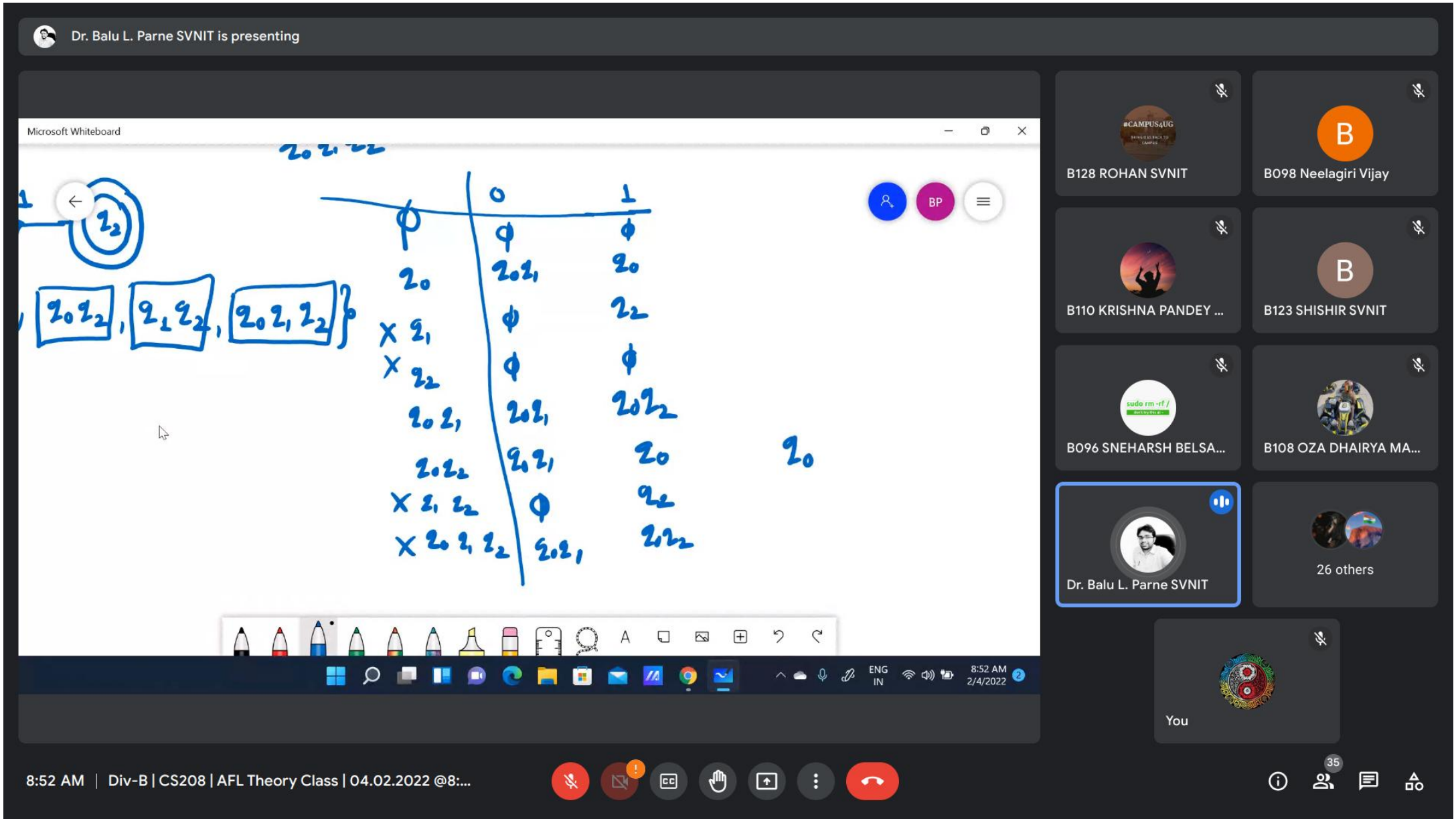
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BP
B128 ROHAN SVNIT
B098 Neelagiri Vijay
B110 KRISHNA PANDEY ...
B123 SHISHIR SVNIT
B096 SNEHARSH BELSA...
B108 OZA DHAIRYA MA...
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26 others
You
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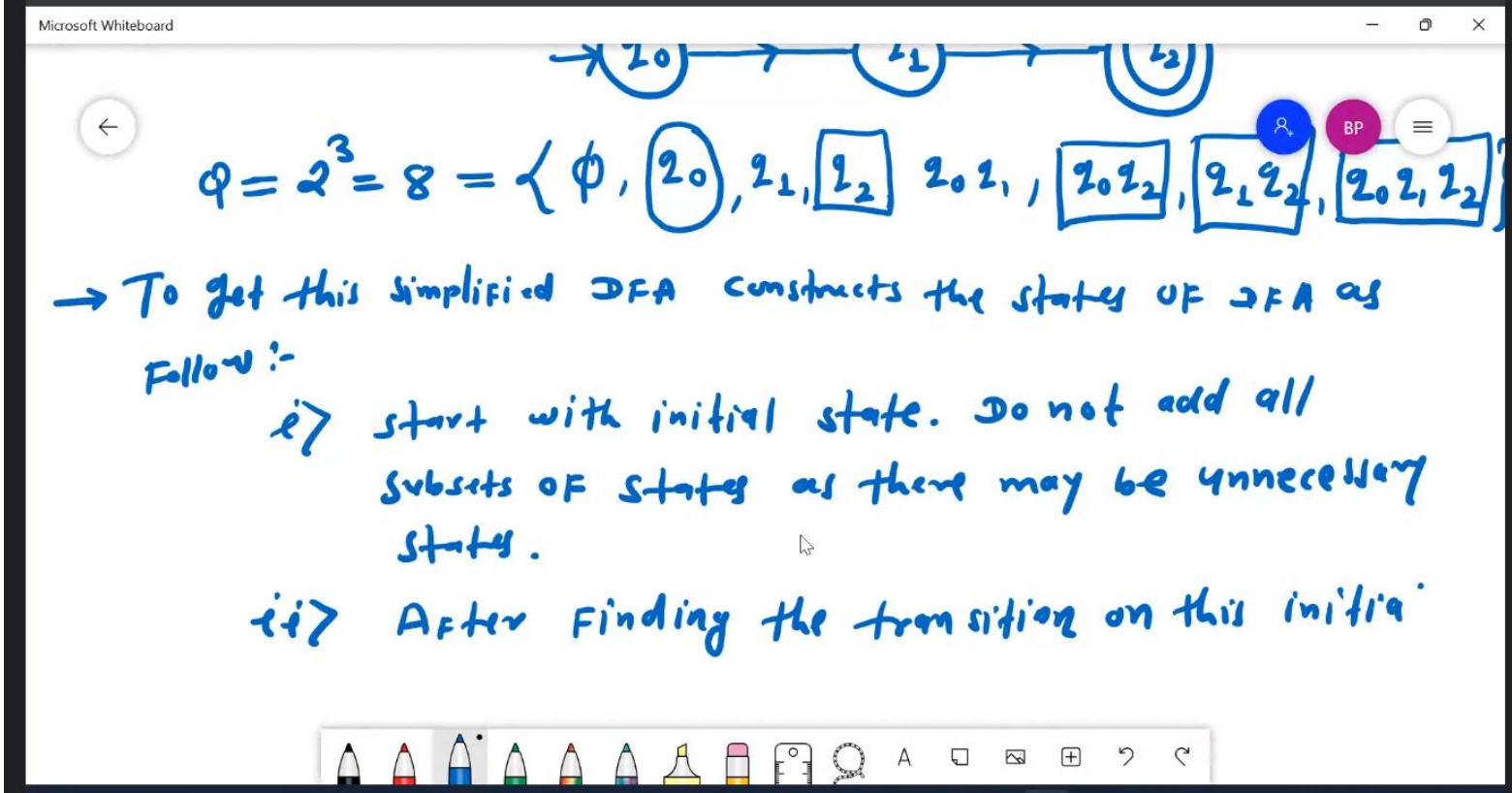

B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

25 others

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follow :-

i) start with initial state. Do not add all subsets of states as there may be unnecessary states.

ii) After finding the transition on this initial state, include only the resultant states in to the list. For Ex:- If $\delta(q_0, a) = \{q_0, q_1\}$ then add this q_0q_1 as a new state and find transition from this state on input symbol.

iii)

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B128 ROHAN SVNIT

25 others

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Subsets of states as there may be unnecessary states.

(ii) After finding the transition on this initial state, include only the resultant states in to the list. For Ex:- If $\delta(q_0, a) = \{q_0, q_1\}$ then add this q_0q_1 as a new state and find transition from this state on input symbol.

(iii) Declare the state as final state if it has atleast one final state state of NFA.

BP

B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

26 others

You

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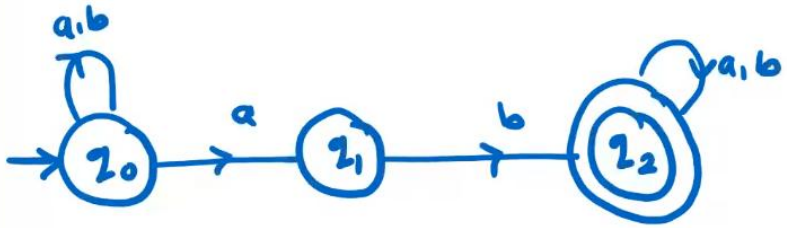
III) Declare the state as Final state if it has atleast one Final state state of NFA.

⇒ Convert following NFA to DFA :



B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

27 others

You

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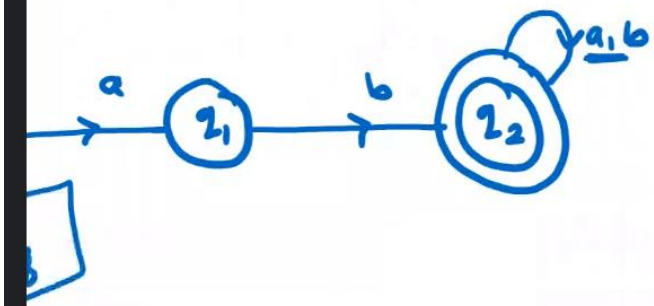
Declare the state as Final state if it has
c least one Final state state of NFA.

rt Following NFA to DFA :



δ	a	b
q_0	q_0q_1	q_0
q_1	ϕ	q_2
q_2	q_2	q_2

δ	a	b
q_0	q_0q_1	q_0
q_0q_1	q_0q_1	q_0q_2
q_0q_2	$q_0q_1q_2$	q_0q_2
$q_0q_1q_2$	$q_0q_1q_2$	q_0q_2

B098 Neelagiri Vijay

B110 KRISHNA PANDEY ...

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

29 others

You

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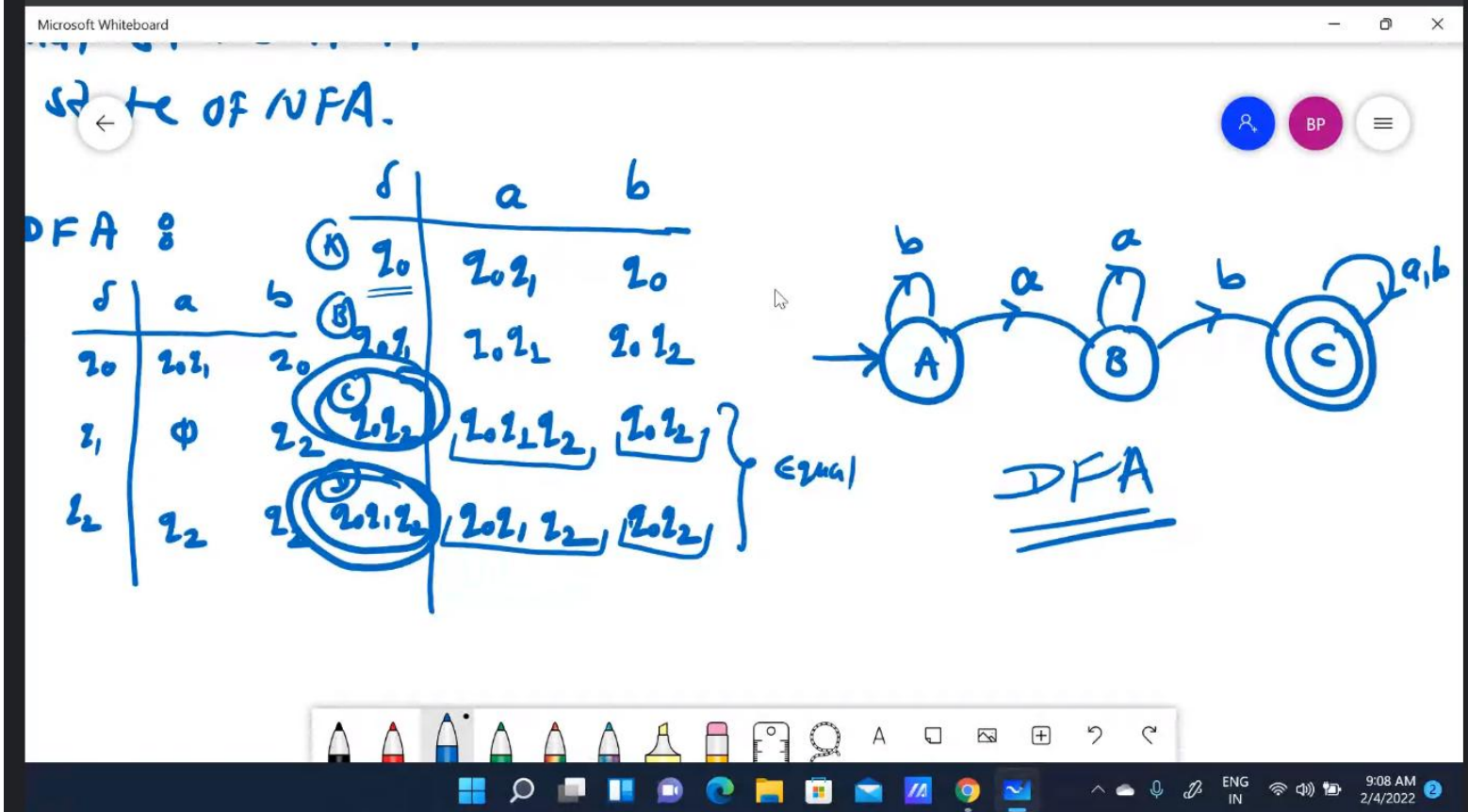

B098 Neelagiri Vijay

B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

31 others

You

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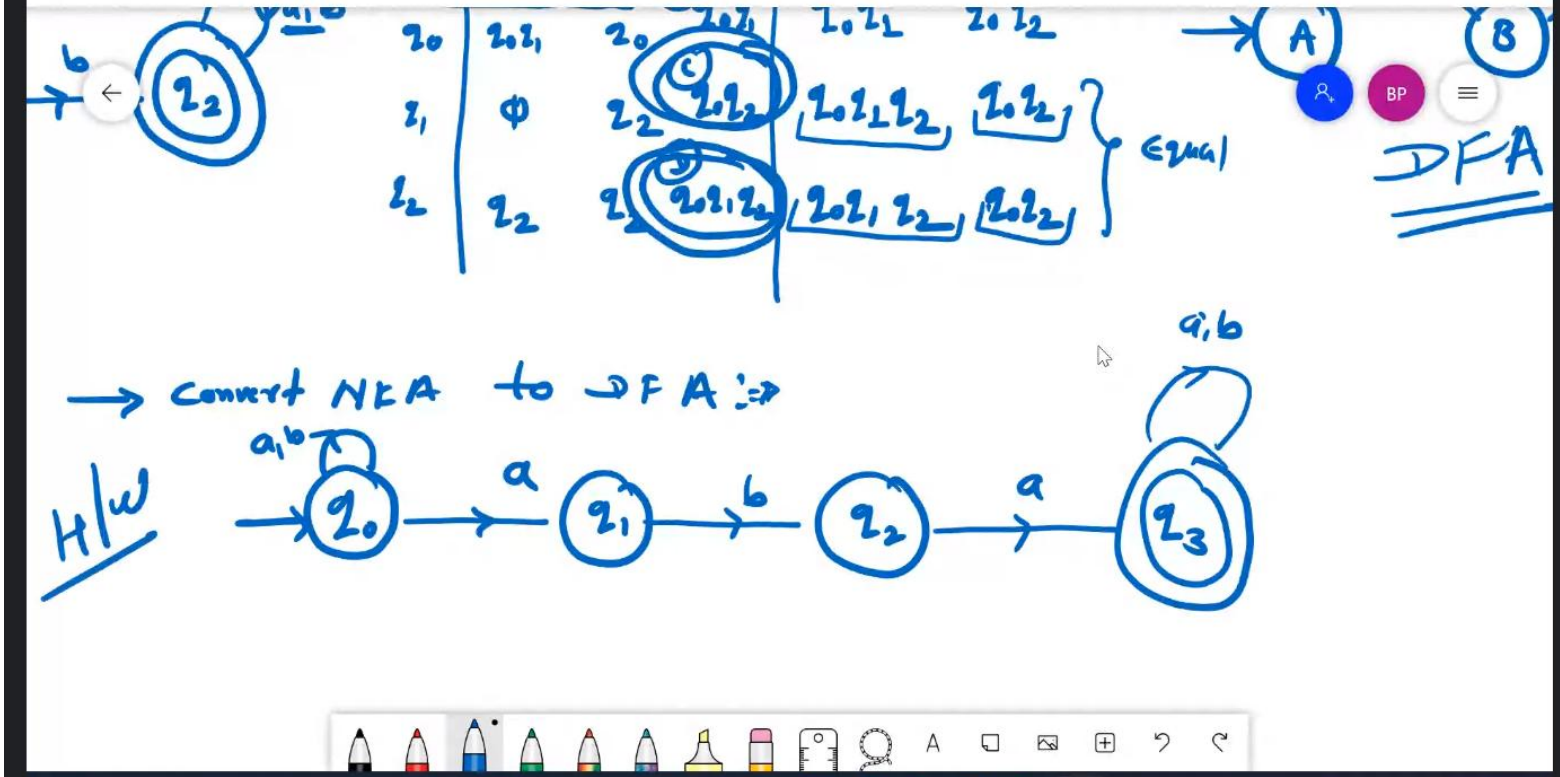

B098 Neelagiri Vijay

B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

32 others

You

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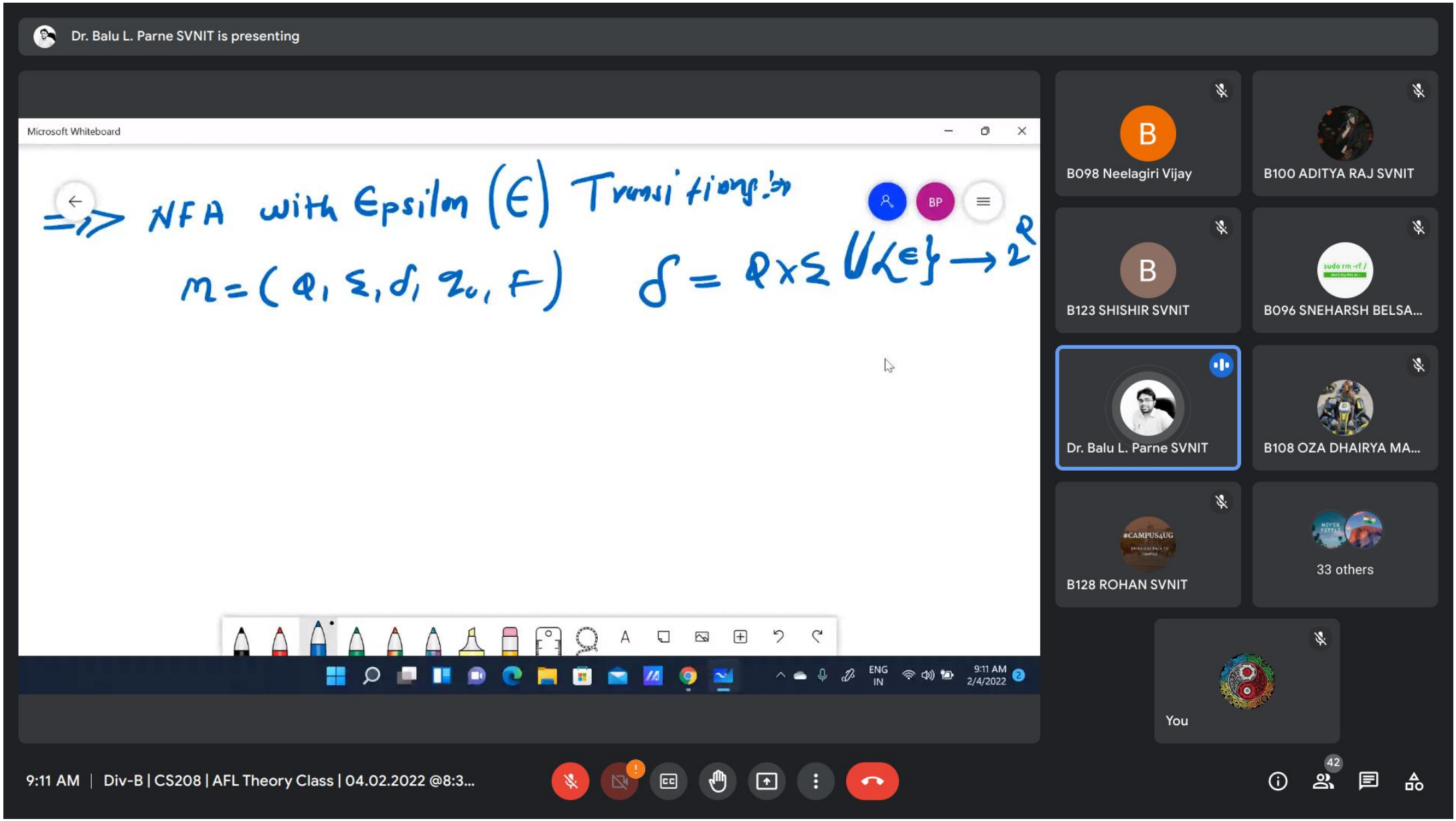
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=> NFA with Epsilon (ϵ) Transitions
M = (Q, Σ, δ, q0, F)
δ = Q × Σ ∪ {ϵ} → 2^Q
BP
B098 Neelagiri Vijay
B100 ADITYA RAJ SVNIT
B123 SHISHIR SVNIT
B096 SNEHARSH BELSA...
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B108 OZA DHAIRYA MA...
B128 ROHAN SVNIT
33 others
You
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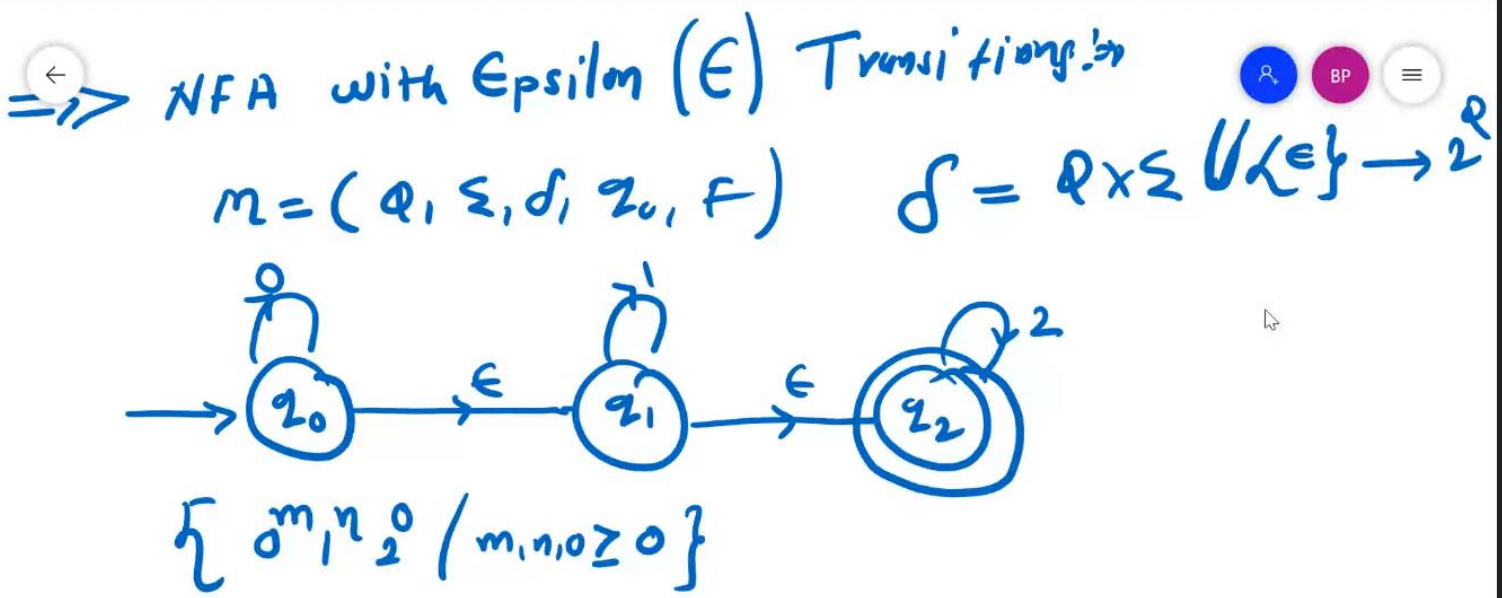

B098 Neelagiri Vijay

B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

34 others

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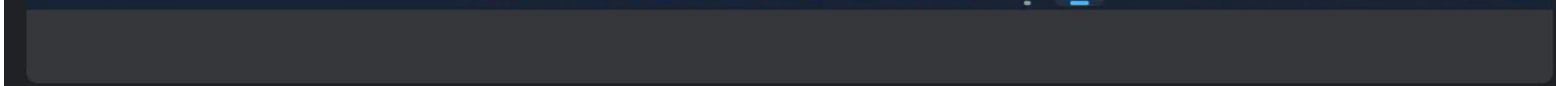
$\{0^{m,n} 2^{0} / m,n,o \geq 0\}$

Construct NFA For language $L = \{0^{k} / k \text{ is multiple of 2 or 3}\}$



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B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

33 others

You

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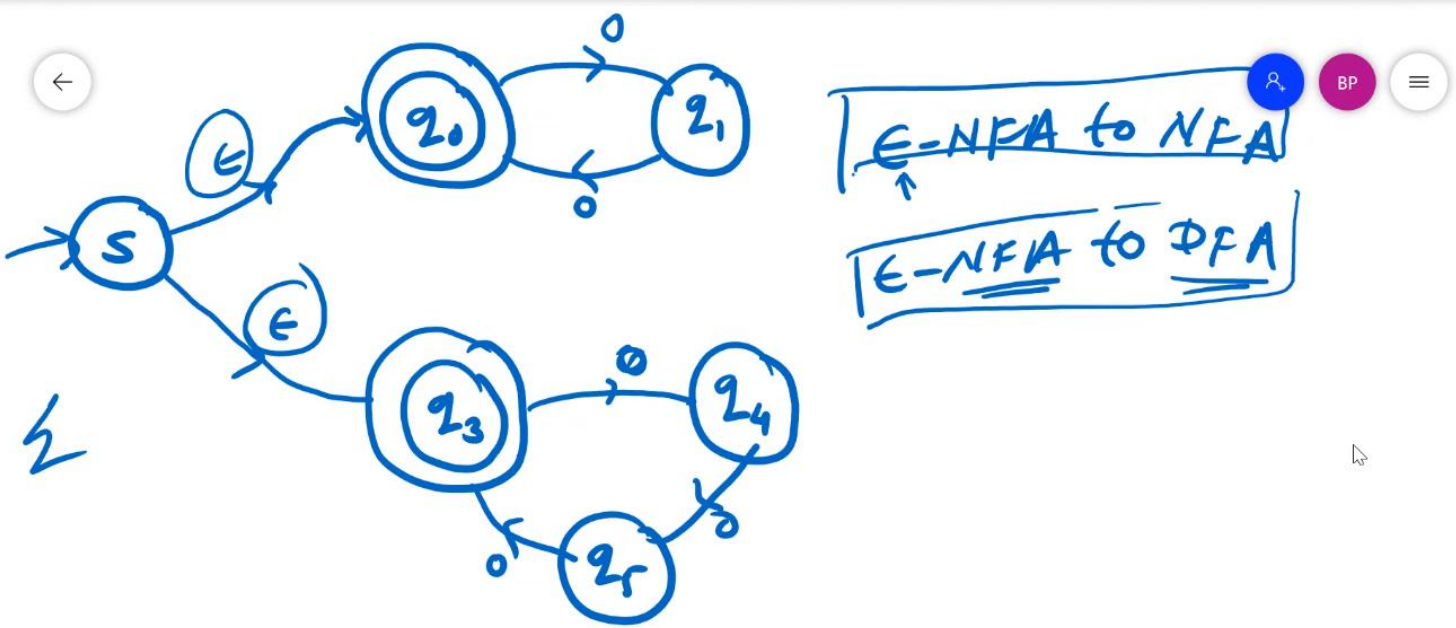

B098 Neelagiri Vijay

B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

34 others

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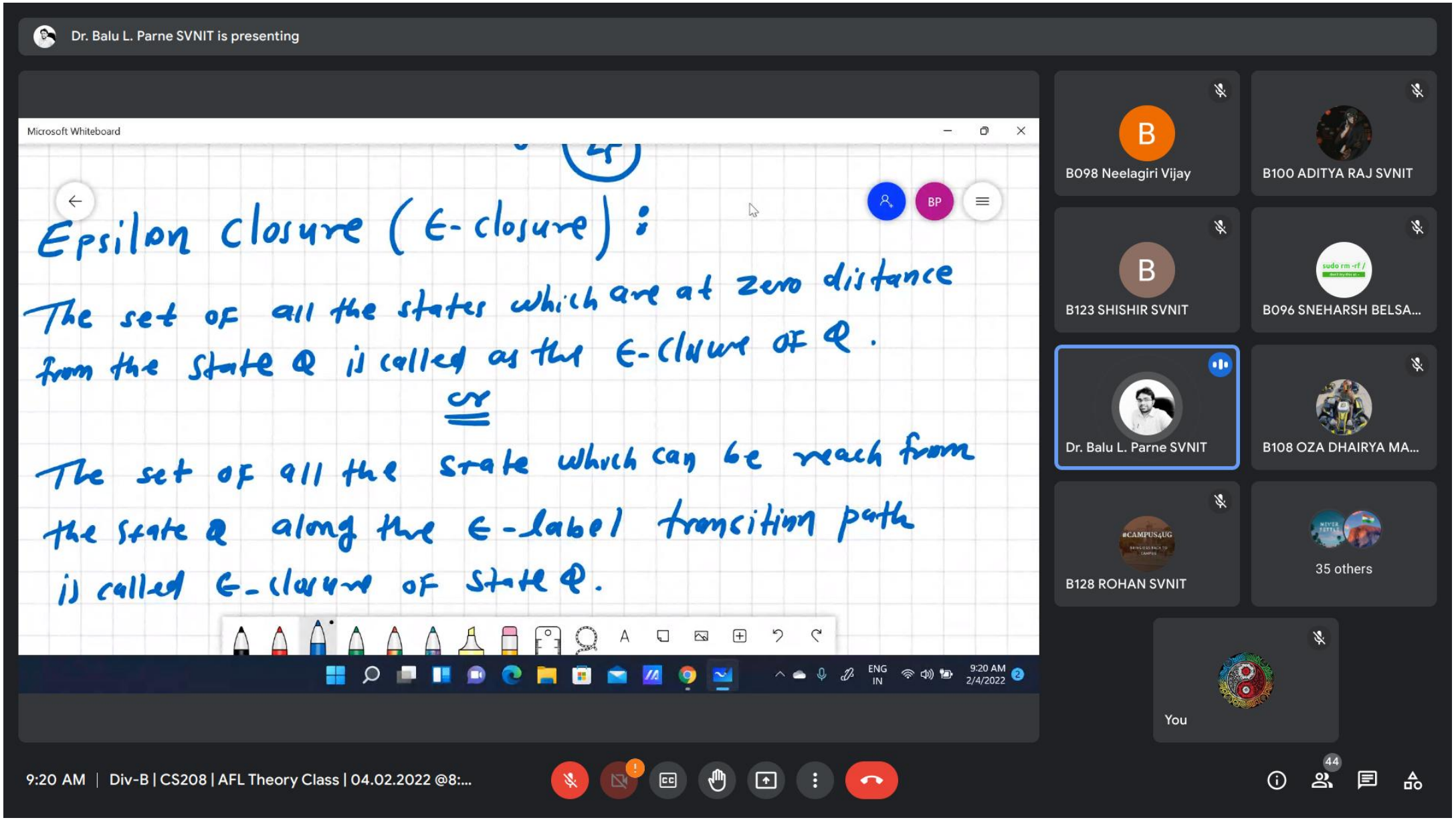
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Epsilon closure (ϵ-closure) :
The set of all the states which are at zero distance from the state q is called as the ϵ-closure of q.
or
The set of all the state which can be reach from the state q along the ϵ-label transition path is called ϵ-closure of state q.
B098 Neelagiri Vijay
B100 ADITYA RAJ SVNIT
B123 SHISHIR SVNIT
B096 SNEHARSH BELSA...
Dr. Balu L. Parne SVNIT
B108 OZA DHAIRYA MA...
B128 ROHAN SVNIT
35 others
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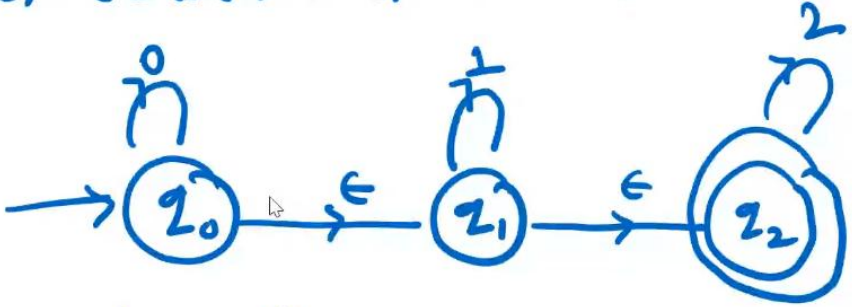
the state q along the ∈-label transiting path is called ∈-closure of state q.



∈-closure(q_0) = {q_0, q_1, q_2}

∈-closure(q_1) = {q_1, q_2}

∈-closure(q_2) = {q_2}

B098 Neelagiri Vijay

B100 ADITYA RAJ SVNIT

B123 SHISHIR SVNIT

B096 SNEHARSH BELSA...

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B108 OZA DHAIRYA MA...

B128 ROHAN SVNIT

35 others

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