

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



→ Construct the MFA that accepts all the strings of a's and b's where every string starts with a

$$\Sigma = \{a, b\}$$

a

$$W = a\underline{x}$$



B131 TANVI DIXIT SVNIT



B109 CH ADITHYA SVNIT



B117 NEELAV BHATIYA S...



B128 ROHAN SVNIT



B114 LELLAPALLI VIKAS ...



B107 Suyog Pokale SVNIT



Dr. Balu L. Parne SVNIT



20 others



You

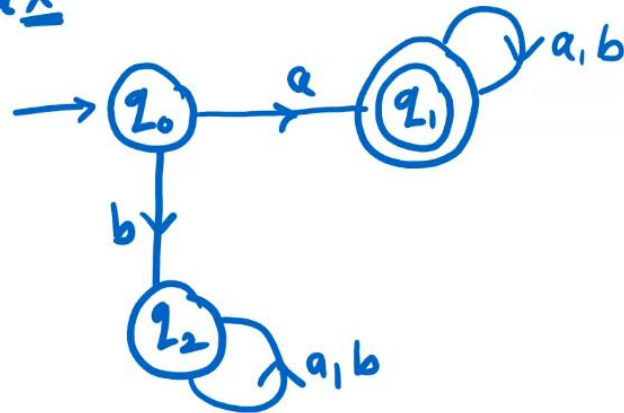
Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

and b's where every string starts with a

$$\Sigma = \{a, b\}$$

$$L = aX$$



B131 TANVI DIXIT SVNIT



B109 CH ADITHYA SVNIT



B117 NEELAV BHATIYA S...



B126 TANGUDU VIVEK S...



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



25 others

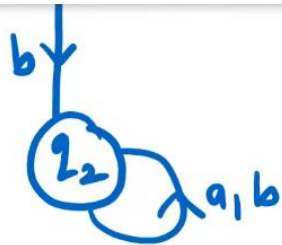


You



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Microsoft Whiteboard



→ where every string starts with a²b.

2.



8:41 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:30...



B131 TANVI DIXIT SVNIT



B128 ROHAN SVNIT



B117 NEELAV BHATIYA S...



B126 TANGUDU VIVEK S...



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



25 others



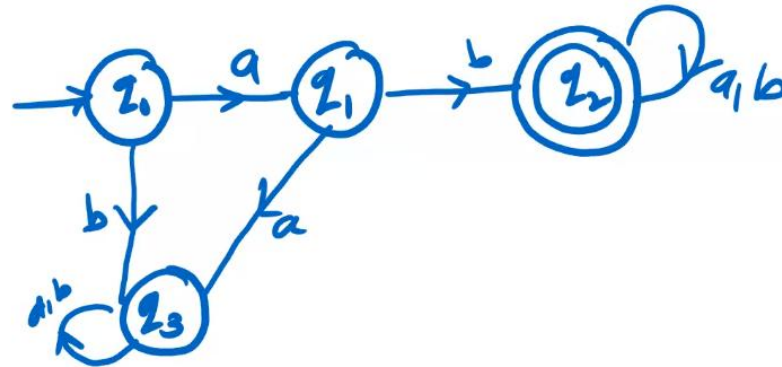
You



Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

→ where every string starts with a⁺b⁺.



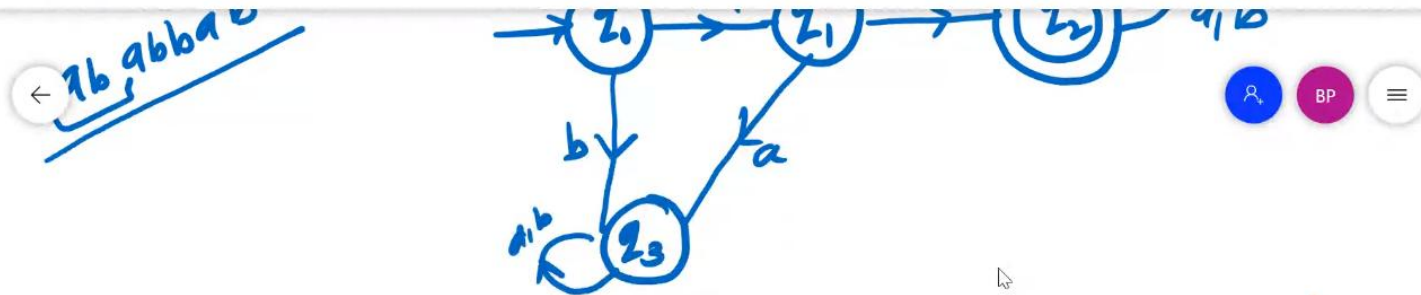
Windows taskbar showing system tray icons (network, volume, battery), language (ENG IN), and date/time (8:43 AM 1/21/2022).

Zoom meeting controls: mute, video, chat, share screen, and end call.

Participant list showing avatars and names of attendees in the Zoom session.

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



Whenever there is restriction on the start of string then we required dead state.



Zoom participant list:

- B131 TANVI DIXIT SVNIT
- B101 SURU MANOJ SVNIT
- B117 NEELAV BHATIYA S...
- B126 TANGUDU VIVEK S...
- B098 Neelagiri Vijay
- B096 SNEHARSH BELSA...
- Dr. Balu L. Parne SVNIT (Active)
- 30 others
- You

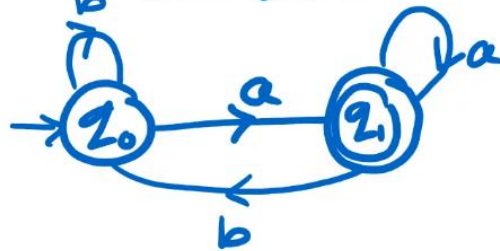
Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

→ Construct the MFA that accepts all the strings of a 's & b 's
where every string ends with a .

$$\Sigma = \{a, b\}$$

$$W = \{x^*a\}$$



B131 TANVI DIXIT SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B101 SURU MANOJ SVNIT



B117 NEELAV BHATIYA S...



29 others



You



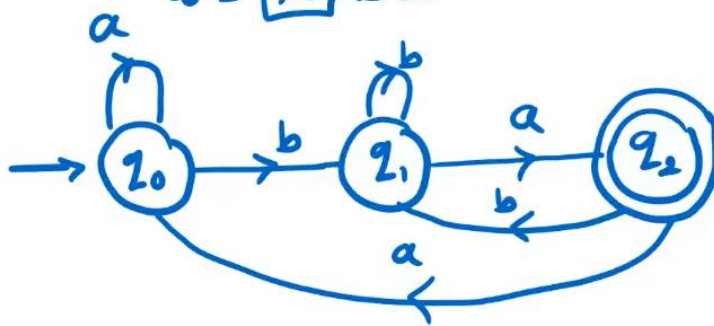


Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

→ where every string ends with ba

$$w = \boxed{x}ba$$



8:49 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:3...



B131 TANVI DIXIT SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B101 SURU MANOJ SVNIT



B079 MIHIR GANDHI SV...



32 others



You



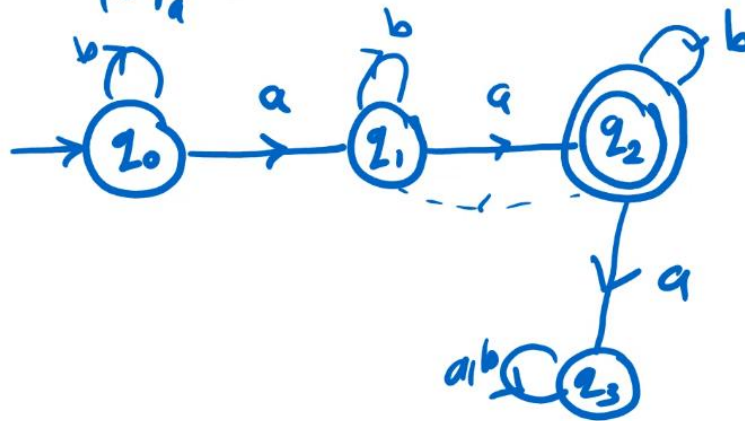
Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

→ Construct the DFA for the language consisting of strings where string contains exactly 2 a's

$\Sigma = \{a, b\}$
 $w/a = 2$

aba
abab
aaba
baab
abba



B131 TANVI DIXIT SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



33 others



You

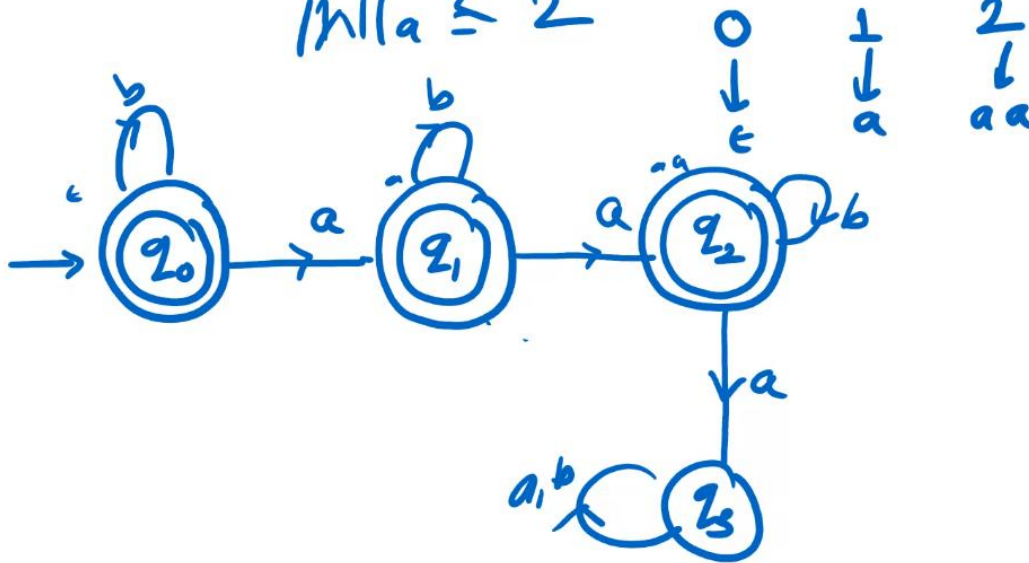


Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

where every string contains at the most 2 a's

$$|w|_a \leq 2$$



BP



B131 TANVI DIXIT SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



34 others



You



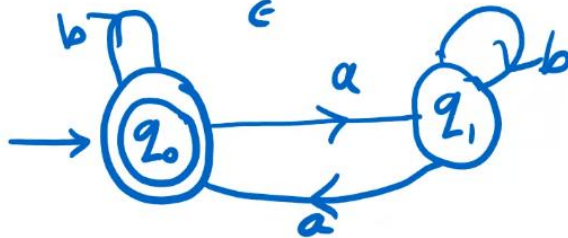
Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



→ where every string contains even number of a's.

$|W|_a = 0, 2, 4, 6, 8, \dots$



B070 YADAV JAY RAJENDRAKUMAR SVNIT has left the meeting

System tray icons: network, volume, ENG IN, 8:59 AM 1/21/2022

8:59 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:3...



B131 TANVI DIXIT SVNIT

B098 Neelagiri Vijay

B096 SNEHARSH BELSA...

Dr. Balu L. Parne SVNIT

B126 TANGUDU VIVEK S...

B110 KRISHNA PANDEY ...

B079 MIHIR GANDHI SV...

35 others

You

44 participants, info, chat, and app icons

Dr. Balu L. Parne SVNIT is presenting

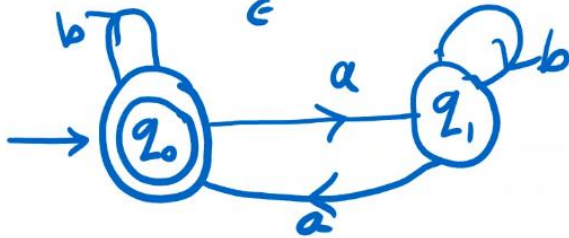
Microsoft Whiteboard



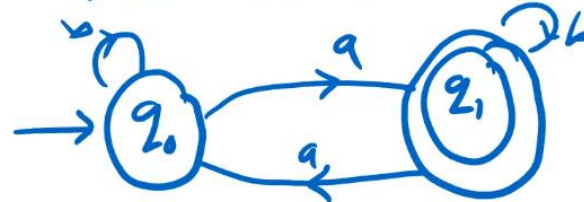
every string contains even number of a's.

$|W|_a = 0, 2, 4, 6, 8, \dots$

$\downarrow \epsilon$



$|W|_a = 1, 3, 5, 7, 9, \dots$



9:00 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:3...



You

B131 TANVI DIXIT SVNIT

B098 Neelagiri Vijay

B096 SNEHARSH BELSA...

Dr. Balu L. Parne SVNIT

B126 TANGUDU VIVEK S...

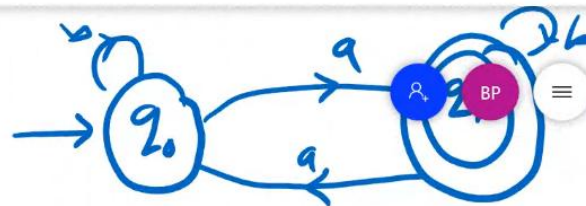
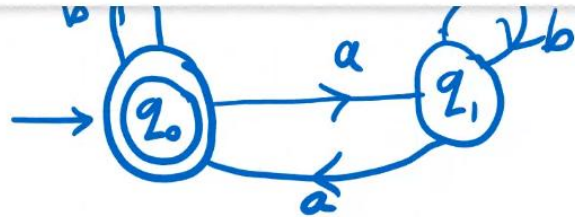
B110 KRISHNA PANDEY ...

B079 MIHIR GANDHI SV...

35 others

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



→ where, number of b's is divisible by 3
 $\Sigma = \{a, b\}$



Windows taskbar showing system tray icons (network, volume, battery), language (ENG IN), and date/time (9:01 AM 1/21/2022).

Zoom meeting controls: mute/unmute, video on/off, chat, hand raise, screen share, and end call.



B101 SURU MANOJ SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



36 others



You

Dr. Balu L. Parne SVNIT is presenting

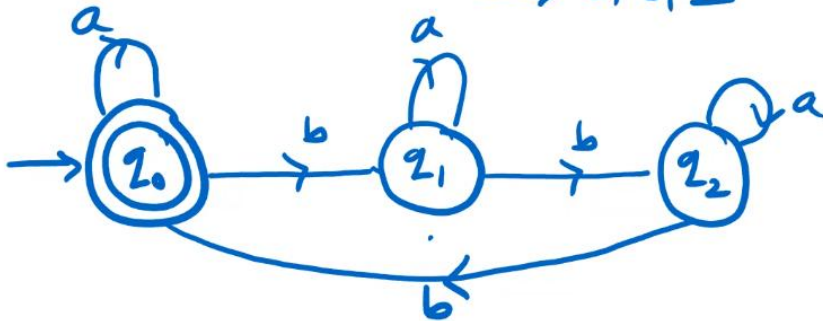
Microsoft Whiteboard



$$\Sigma = \{a, b\}$$

$$|w|_b = 0, 3, 6, 9, 12, 15, \dots$$

$$|w|_b \equiv 0 \pmod{3} \rightarrow 0, 1, 2$$



46

You



B101 SURU MANOJ SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



37 others

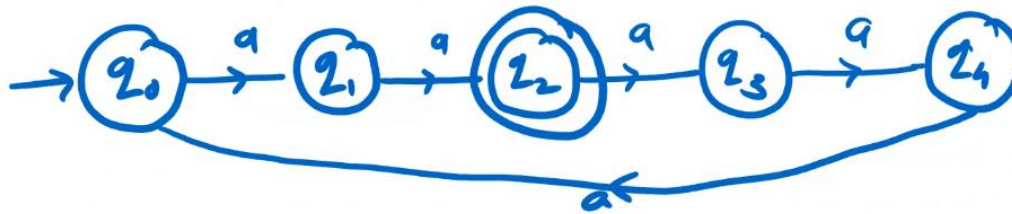
Dr. Balu L. Parne SVNIT is presenting

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7
12
17
22

$2 \pmod{5}$

0 1 2 3 4
 q_0 q_1 q_2 q_3 q_4



Windows taskbar showing various application icons and system status (9:07 AM, 1/21/2022).



B101 SURU MANOJ SVNIT



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



37 others



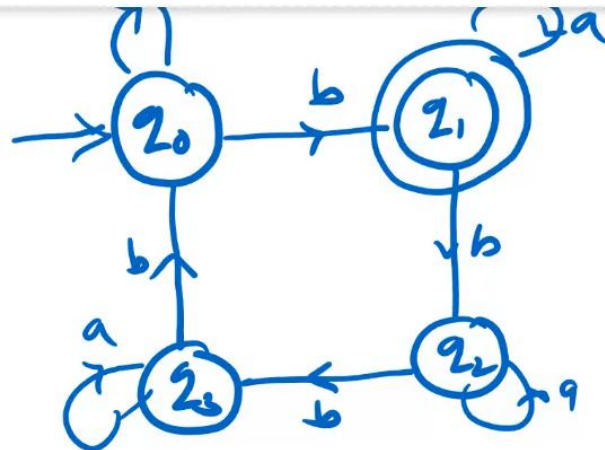
You

Meeting controls: mute, video, chat, hand, share, more options, end call.

Meeting status: 46 participants, info, chat, screen share.

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



If $|w|_a = \frac{n}{2} \pmod{n}$
or $|w|_b = \frac{n}{2} \pmod{n}$ then NFA contains exactly n states
the final state is $q_{\frac{n}{2}}$



B122 MADALA PRUDHVI ...

B098 Neelagiri Vijay

B096 SNEHARSH BELSA...

Dr. Balu L. Parne SVNIT

B126 TANGUDU VIVEK S...

B110 KRISHNA PANDEY ...

B079 MIHIR GANDHI SV...

38 others

You

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

$\exists w \mid w/a = r \pmod{n}$
 $w/b = r \pmod{n}$ then MFA contains exactly n states & the final state is q_r

→ where every string contains 2 a's consecutively.
xaax aax xaa



9:12 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:30...



B122 MADALA PRUDHVI ...



B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...



B079 MIHIR GANDHI SV...



38 others



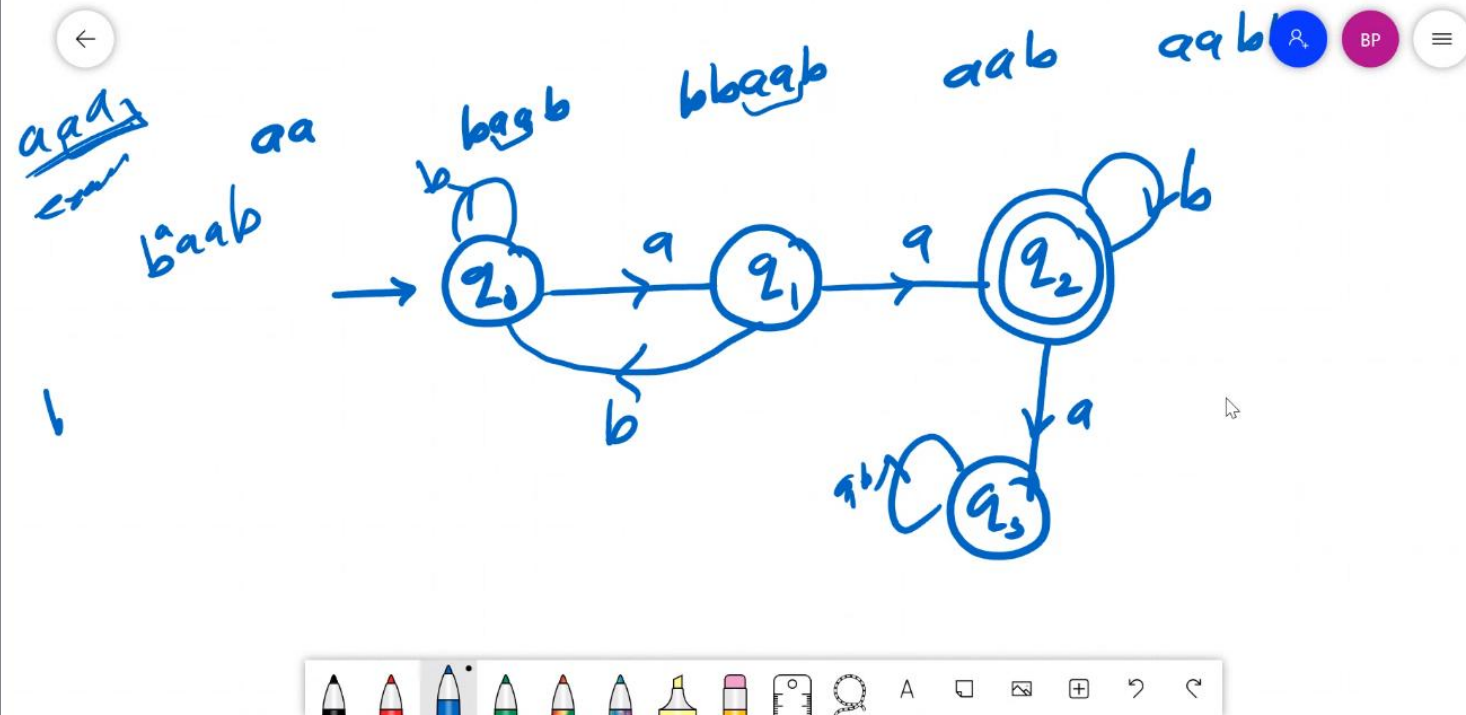
You





Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



B

B123 SHISHIR SVNIT

B

B098 Neelagiri Vijay



B096 SNEHARSH BELSA...



Dr. Balu L. Parne SVNIT



B126 TANGUDU VIVEK S...



B110 KRISHNA PANDEY ...

B

B117 NEELAV BHATIYA S...



39 others



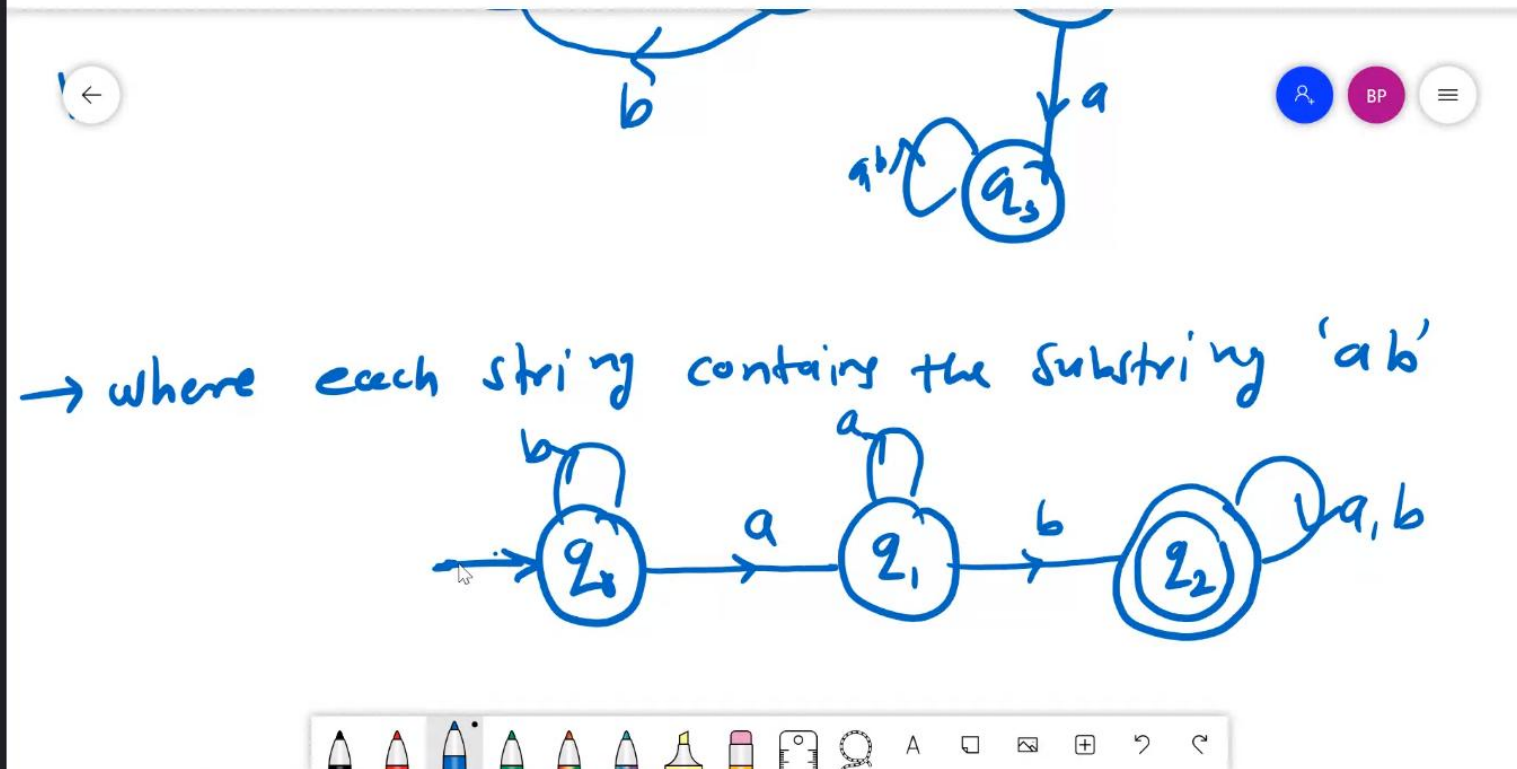
You

9:18 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:30...



Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard



B122 MADALA PRUDHVI ...

B098 Neelagiri Vijay

B096 SNEHARSH BELSA...

Dr. Balu L. Parne SVNIT

B126 TANGUDU VIVEK S...

B110 KRISHNA PANDEY ...

B117 NEELAV BHATIYA S...

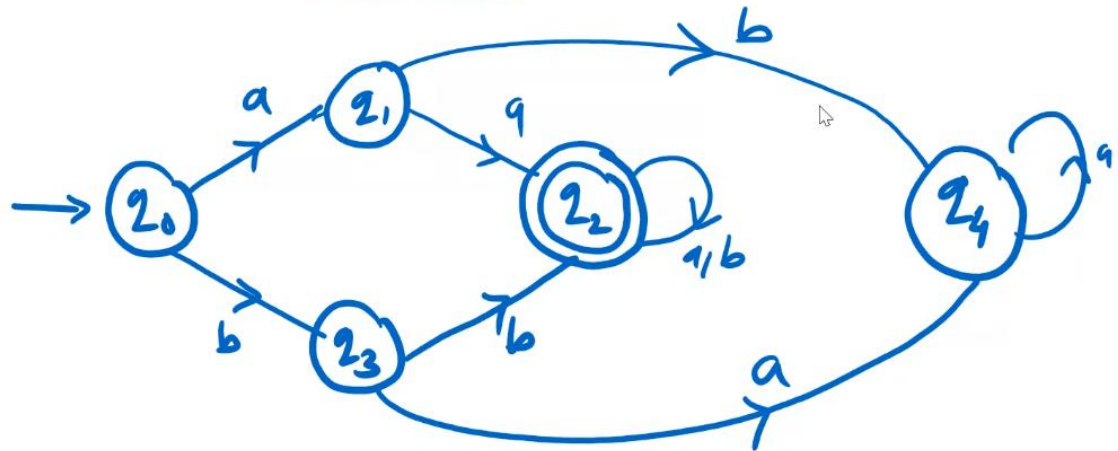
40 others

You

Dr. Balu L. Parne SVNIT is presenting

Microsoft Whiteboard

→ where every string starts with aa or bb



9:22 AM | Div-B | CS208 | AFL Theory Class | 21.01.2022@8:3...



B122 MADALA PRUDHVI ...

B098 Neelagiri Vijay

B096 SNEHARSH BELSA...

Dr. Balu L. Parne SVNIT

B126 TANGUDU VIVEK S...

B110 KRISHNA PANDEY ...

B117 NEELAV BHATIYA S...

40 others

You