INT201 Decision, Computation and Language

Tutorial 4

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1. Let $\Sigma = \{a, b\}$. Define $A = \{\, w \in \Sigma^* \mid |w| \geq 3,$ second-to-last symbol of w is $b \,\}$.

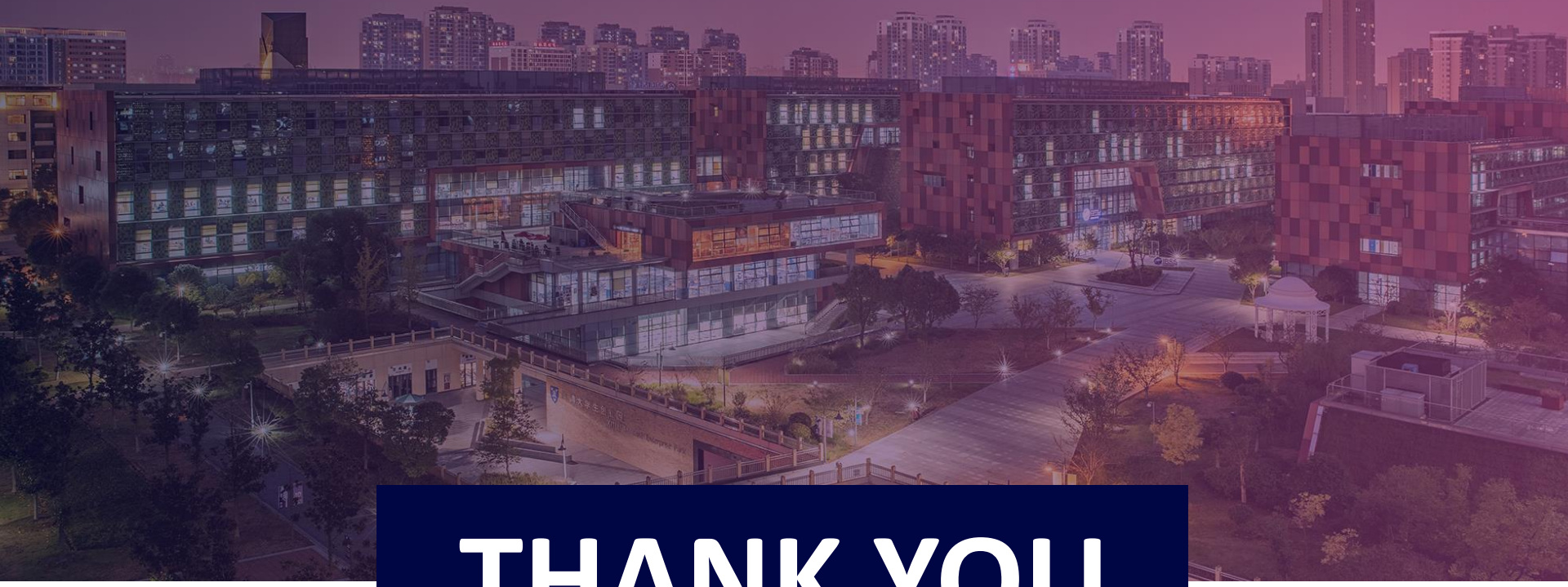
   Is A closed under **reversal**? If YES, give a proof. If NO, give a counterexample.

   Draw a DFA for A. You only need to draw the picture. You do not need to give the formal definition of your DFA as a 5-tuple.

2. Give regular expressions that generate each of the following languages. In all cases, the alphabet is $\Sigma = \{a, b\}$.

   The language $\{\, w \in \Sigma^* \mid |w|$ is odd $\}$.

   The language $\{\, w \mid w$ contains at least two a's, or exactly two b's $\}$.



THANK YOU

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