Formal Languages and Automata Theory, SS 2019. Homework 10 (due Week 14)

1. Consider the PDA with acceptance by final state from Course 11, slide 9. How does it work for the input 11000, respectively, 110011? (*Hint*: see slide 10)

2. Construct a PDA with acceptance by empty stack which recognizes palindromes. How does it work for the input 11000, respectively, 110011?

3. Consider the PDA from Course 11, slide 11 in which the transition from q_1 to q_0 is erased. How does it work for the input $((())())()$?

4. Consider the PDA's from Course 11, slide 14. What is the difference between them? How do they work for the input $((())())()$, respectively $((()())()$?

5. Consider the language $L = \{a^n b^n | n \geq 1\}$.

   - Give a CFG and a PDA for it.
   - From the CFG construct the PDA. What kind of PDA do you obtain?

6. Construct PDAs for the languages from Homework 10.