PDA's

Ex. Find PDA's that accept the following languages:

- **1.** $L_1 = \{ww^R \mid w \in \{a, b\}^+\}$
- **2.** $L_2 = \{a^n b^{2n} \mid n \in N^*\}$
- **3.** $L_3 = \{a^n b^{2n} \mid n \in N \}$
- **4.** $L_4 = \{a^{2n}b^n \mid n \in N^*\}$