1. Hysteresis changes the voltage threshold depending on the currently detected digital state.
2. Quantization is the process of mapping a high-resolution signal to a manageable lower-resolution one.
3. Nyquist theory explains the relationship between how often you sample an input signal and whether or not you'll be able to tell what it is afterwards. If it is too slow, then you'll either not be able to recognize the output at all, or you will have higher-frequency signals aliasing, and falsely appearing as slower ones.
4. 2^12.
5. The left-aligned mode is typically used for selecting the upper bits of a 16-bit number, allowing the DAC to act on 16-bit data without any conversion or shifting
6.
    a. Ensure that ADEN = 0 and DMAEN = 0.
    b. Set ADCAL = 1.
    c. Wait until ADCAL = 0.
    d. The calibration factor can be read from bits 6:0 of ADC_DR.
7. DAC_DHR8Rx
8. There wasn't anything in particular.