Week 6 Homework

Load the historical data for S&P 500 Index since Jan, 1, 2020, and create the following plots:

1. A plot that shows the price change in 2020 (use the close price) with:
   A. Annotations for the highest value before COVID and the lowest value after that.
   B. A rectangle indicating how long it takes for the price to drop from peak to bottom after the COVID outbreak.
   C. A rectangle indicating how long it takes for the price to restore the previous peak value.
2. Calculate the daily returns:
$$DailyReturn = (close - open)/open$$
   Plot a histogram indicating the distribution of daily returns.
3. How many days are there where the SP500 Index increased/dropped for more than 3%?