Code output:  
  
Please enter the amount of highest/ lowest exchange rates you want:

10 *(user input)*

The 10 positive exchange rates are:

Date: 22/04/2008 Exchange rate (-mean): 0.413845

Date: 16/04/2008 Exchange rate (-mean): 0.409045

Date: 02/05/2011 Exchange rate (-mean): 0.297045

Date: 11/07/2008 Exchange rate (-mean): 0.408045

Date: 25/11/2009 Exchange rate (-mean): 0.327845

Date: 04/05/2011 Exchange rate (-mean): 0.297045

Date: 18/03/2014 Exchange rate (-mean): 0.207745

Date: 26/11/2007 Exchange rate (-mean): 0.302245

Date: 21/07/2008 Exchange rate (-mean): 0.406845

Date: 01/12/2009 Exchange rate (-mean): 0.322745

The 10 negative exchange rates are:

Date: 25/10/2000 Exchange rate (-mean): -0.358455

Date: 05/07/2001 Exchange rate (-mean): -0.348655

Date: 26/10/2000 Exchange rate (-mean): -0.356055

Date: 11/06/2001 Exchange rate (-mean): -0.342555

Date: 17/07/2001 Exchange rate (-mean): -0.326755

Date: 20/09/2000 Exchange rate (-mean): -0.336755

Date: 24/10/2000 Exchange rate (-mean): -0.350055

Date: 30/03/2001 Exchange rate (-mean): -0.309655

Date: 28/06/2001 Exchange rate (-mean): -0.341655

Date: 23/07/2001 Exchange rate (-mean): -0.317055

The maximum subsequence is: 404.808 which occured from: 18/11/2003 to 06/01/2015

Complexity analysis:  
  
The file reading function has complexity O(n) as it reads each line in the file once. The Building heap functions each have complexity O(n). The mean calculating function also has complexity O(n). The functions to calculate the negative and positive values have complexity O(nlogn). The copying of the array in the main is also O(n). Hence, the complexity of the algorithm is O(nlogn + nlogn + n + n + n + n + n) = O(2nlogn + 5n) = O(nlogn).