Instytut Informatyki Ekonomicznej
Prof. dr hab. Jerzy KORCZAK

Information Technology in Finance
Assignment 3 (option B)

Submission deadline and oral presentation: January 18, 2017

The purpose of the Assignment 3B is to familiarize with basic stock market software, and to design a stock screener and trading rules allowing to take profitable positions on a stock market (buy, sell or hold). For this purpose you may use JStock, which is freeware and open source. You may also work with Google Finance or Yahoo Finance platforms.

The assignment places you in the role of trader on intraday data. You will operate in the reverse engineering way. First, you need to build or select your indicator(s). Then you should test and run it by the scanner. Once accepted, you should report the results. In addition to your experiments, collect the news from the press about the events that are related to your trading.
Students are free to use any datasets provided by the JStock, Google or Yahoo Finance.

Instructions and hints:

A. *Become familiar with the use of the JStock, Google Finance or Yahoo Finance* (http://jstock.sf.net, google.com/ finance, finance.yahoo.com/screener)

B. *Do experiments with the tutorial which is available online.*
Before you will propose your own stock indicator(s) you will probably want to test it on the working example.

C. *Define money management strategy*
Initial capital: $50,000 and $50,000 in stocks. Define your stop-loss value and stop-gain. Note that no credit is available. Transaction cost 0.2 %.

D. *Compare your model* with one of known strategies such as Buy-and-Hold benchmark, linear trend or exponential trend. Comment the performance of your trading strategy according to the schema available on my Web page.

E. *Submit a report-presentation* by email to: jerzy.korczak@ue.wroc.pl before the 18th January as a ZIP file with the name ITF-author_name.zip
The report should be a comprehensive oral presentation of your experiments using MS PowerPoint. You should include the following: experiment description, datasets used and when, charts, architecture of the indicator, what your indicator is able to detect, extracts from newspapers' facts that describe your indicator's effectiveness, and conclusion of the experiments.

F. *Oral presentation will be given by all authors of the project; 10 min per project.*

References:
– Lecture notes "IT in Finance" by J. Korczak (http://www.korczak-leliwa.pl)
– JStock doc http://jstock.sourceforge.net/ Application, docs and tutorials
– http://www.investopedia.com/