SOFTWARE ENGINEERING PRINCIPLE

SENG8010

DISASTER REPORT – WALL STREET CRASH

EMBEDDED SYSTEM DEVELOPMENT

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CONESTOGA

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A. In late 1985 and early 1968, the United States economy shifted from a rapid recovery from the early 1980s recession to a slower expansion, resulting in a brief "soft landing" period as the economy slowed and inflation dropped. The stock market advanced significantly, with the Dow peaking in August 1987 at 2,722 points, or 44% over the previous year's closing of 1,895 points.

The crash was preceded by significant drops in the prior week. Two events in the news on the morning of Wednesday October 14 has sometimes been singled out as possible triggers for the crash. The United States House Committee on ways and means introduced a tax bill that would reduce the tax benefits associated with financing mergers and leveraged buyouts. Second, unexpected high trade deficit figures announced by the Department of Commerce had a negative impact on the value of the US dollar while pushing interest rates upward; these also put downward pressure on stock prices. The DJIA dropped 95.46 points (3.8%) to 2,412.70, and it fell another 58 points (2.4%) the next day, down over 12% from the August 25 all-time high.

On Friday, October 16, when all the markets in London were unexpectedly close due to the Great Storm of 1987, the DJIA fell 108.35 points (4.6%) to close at 2,246.74 on record volume. Then Treasury Secretary James Baker started concerns about the failing prices.

The crash began in far Eastern markets the morning of October 19 and accelerated in London time, largely because London had closed early on October 16 due to the storm. By 9:30am., The London FTSE100 had fallen over 136 points.

Ref. A

B. Every one of 23 major world markets experienced a decline in that October. When measured in a common currency (US dollars), 8 of them declined by 20 to 29%, 3 by 30 to 39% (Malaysia, Mexico and New Zealand), and 3 by more than 40% (Hong Kong, Australia and Singapore) Worldwide losses are estimated at $1.7 trillion US dollars. The severity of the crash sparked fears of extended economic instability or even a reprise of the Great Depression. Across nations, the degree to which the financial markets distress spread to the wider economy was directly related to the monetary policy each nation pursued in response. The central banks of the United States, Germany and Japan provided liquidity to prevent debt defaults among financial institutions, and the impact on the real economy was relatively limited and short-lived. The Reserve Bank of New Zealand's refusal to loosen monetary policy in response to the crisis, however, had sharply negative and relatively long-term consequences for both financial markets and the real economy.

Ref. B

C. Wall street crash is also known as **Black Monday** on October 19, 1987 was the date when a sudden, severe and largely unexpected systemic shock roiled the global financial market system, impairing its functioning through a stock market crash, along with crashes in the futures and options markets. In the United States, the Dow Jones Industrial Average (DJIA) fell exactly 508 points (22.6%). This was the largest one day drop in history, in percentage term. Significant selling created steep price declines throughout the day, particularly during the last hour and a half of trading. The S&P 500 futures contract declined 29 percent. Total trading volume was so large that the computer and communications systems in place at the time were overwhelmed, leaving orders unfilled and in limbo for an hour or more. Large funds transfers were delayed for hours and the Fedwire and NYSE DOT systems shut down for extended periods of time, further compounding the confusion among trades.

Ref. C

D. Due to the craze in making huge money in less time and being addicted to money and in the share market with full trust in the early computers, people were using the mode of automatic buying and selling of the shares, which made a big crash in the market. If the people involved in the share market buying and selling not opted for the automatic selling will not been exacerbated the problem.

Ref. D

E. This did not occur just because of a requirement change inappropriately. All the reason for this to happen was that the people involved in making huge money with the skills they had at that time and by using the resources in the early 80's they believed the computers in those times with the automatic mode of selling the stocks, which is the place it went wrong and made the crash happen.

Ref. E

F. Partially, this crash was done on because of the technology. This is not linked directly with the technology but it was also one of the reasons of the crash. Either we could say that the problem was because of the technology 50% and the human error of 50%. Since the people involved in the share market opted for the mode of automatic selling shares, made this happen, which we could blame the technology.

Ref. F

G. Since, the problem or the crash is caused due to the technology aspects including the human errors also in it, the testing of the technology used will not be happened just like that. It does not mean that the creator of the technology used in the selling process was not tested, but still the testing of these sort of real time more users with real happening of current market cannot be tested with all the probabilities. So, it was tested partially with all sort of test methods and test sequence considerations, so the blame will not fall on one person but we could say that it is based on the group of people who used and created it.

Ref. G

H. The technology which is involved in this crash was not just the process which was happening on the single system or inside the walls, this is something which was happening all the places at the same time considering many parameters coming from different places, so the result of this sort of simple fails will make a big effect after this happened, so there was nothing to help with pre-warn for the problem or possibility. This is something with small mistake with the biggest effect which is directly related to the technology and the people opted to it.

Ref. H

I. The causing of this disaster Wall street crash 1987 or Black Monday was not just because of the software or any of the electronic devices, it is something dealt with the website or the web server which is dealing with the share markets in different countries and the more number of people opted for the mode of automatic selling of their products or shares if the condition is met. The condition comparison or the decision making system in the software when a limit is reached or the profit share is met for the person involved in that trade was the main defect in the software made the biggest crash ever in the history of share market till today which involved many countries along and made a panic in the people and also created some economy change all over the world.

Ref. I

J. References:

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