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IDENTIFY THREE EXAMPLES OF SOFTWARE PROJECT FAILURES IN THE WORLD AND IN GHANA

Information technology systems comprise software and hardware purposely designed to aid in accomplishing business tasks and objectives. They collect, process, organize, communicate and store information for smooth, effective and efficient running of an organization. IT systems simplify complex business processes and cut down latency that manual systems generate and other attendant issues. Systems have become relevant because more than ever, the business community wants to do more with less and in the shortest possible time, to cut cost and serve as many customers as they can. Moreover, the technological advancements of the 21st century has also provided the womb for such desires to be birthed. Systems can be purchased off shelve or specifically made to suite the need of a particular entity. The off-shelf systems hardly fail because they have been designed with a predetermined environment in mind. The only problem that may arise from using an off-shelf system is, if the organization has outgrown its use, the organization will need more fitting software to address the new challenges expansion brings about. The focus of this article however, is on customized systems that fail and factors that account for the failure of this systems. Once a contract is signed for a software developer to develop a customized system for an organization, to fit a particular need, the software development has become a project and must be recognized and managed as such.

The three failures of Software Engineering in Ghana are as follows;

1. President of the Ghana Institute of Freight Forwarders (GIFF), Edward Akrong says the UNIPASS, now Integrated Customs Management Systems (ICUMS), contrary to suggestions by government that all is well, is creating lots of unbearable problems for clearing agents and importers since its deployment at Takoradi Port. According to him the rollout of UNIPASS/ICUMS at the Takoradi port is creating a lot of unbearable

problems for clearing agents and importers. Currently the supposed superior UNIPASS/ ICUMS is unable to deliver the end to end package as envisaged as freight forwarders have been asked to go back to the use of the manual means of clearing goods .Mr. Akrong, who was speaking on Citi TV's Face to Face program on Tuesday evening said the operators of the UNIPASS/ICUMS system are now mixing manual with electronics to release goods at the Takoradi ports, resulting in delays in clearing goods. He said the shipping lines also resorted to the manual release of goods because of the problems with the UNIPASS/ICUMS system. Mr. Akrong said: "Our members cannot use the UNIPASS/ICUMS system because the system is problematic. Some importers have still not been able to clear their goods since April 9, 2020. We are losing a lot of revenue as a result of the failing system."

2. The Ghana Water Company Limited (GWCL) has terminated its contract with SOFTtribe Limited, a software developing company due to what it termed as inefficient and ineffective service delivery. According to the Managing Director of GWCL, Mr Clifford Braimah, the activities of the software company has become a drain to the resources of the company as such the earlier the contract is terminated the better. Speaking at a press conference yesterday in Accra, he explained that as part of efforts of GWCL to improve their customer service delivery they had contract with SOFTtribe in 2016 after the company introduced their new software dubbed "MX-Platform. Together we developed tools for meter reading, customer application and hosted them on SOFTtribe platform, they were responsible for managing the systems updates and database engine," Mr Braimah said. He observed that after working with them for two years his outfit began to receive notice of resignation from the employees of SOFTtribe which led the utility company to experience system challenges.

The three failures of Software Engineering in the world are as follows;

1. Two years ago a well-known code collaboration platform GitLab experienced a severe data loss which appeared to be one of the major outages in the IT world. GitLab originally used only one database server but decided to test a solution using two servers. They planned to copy the data

from the production environment to the test environment. In the process, the automatic mechanisms began to remove accounts from the database which were identified as dangerous. As a result of increased traffic, the data copying process began to slow down and then stopped completely due to data discrepancies. To add insult to injury, information from the production database was removed during the copying process. After several attempts to resume the process, one of the employees decided to delete the test base and start the process again but accidentally deleted the production base. What made things even worse is that the directory holding the copies was empty too — the backups had not been made for a long time due to a configuration error. What meant to be a standard procedure resulted in an 18-hour outage while the 300 GB of customer data was lost. According to the GitLab's estimates, the company has lost data on at least 5,000 new projects, 5,000 comments, and 700 users.

2. This summer the flag carrier airline of the UK — British Airways — reported an IT system issue that resulted in the delay of hundreds of flights in the UK, while dozens of flights were canceled completely. This failure affected three British airports and thousands of passengers who had to rebook their flights or check-in by using manual systems. Despite the problem being solved, the airports still felt the effect of this failure for a long while before normal service was resumed. This computer problem at British Airways is just the latest in a series of IT concerns of the airline. Last year British Airways was sentenced to a record fine of 200 million euros for a data breach. This happened because of the cyber-hack which resulted in a website failure compromising the data of 500 thousand customers. British Airways also experienced a massive system failure in 2017, which affected 75,000 passengers and cost the company nearly 80 million pounds. British Airways is not the only airline that is struggling with programming issues. In 2013 American Airlines had to ground off all its flights because of the computer glitch. And in 2017 the company had over 1,000 flights at risk of cancellation. The plans of many travelers during the holiday season could be ruined because of a single error in the company's internal scheduling system which gave too many pilots a day off.

3. When it goes about IT failures, no one is safe. Amazon's AWS, which is considered to be one of the most reliable hosting services, experienced a serious outage in the eastern coast of the U.S in 2017.The AWS's infrastructure supports millions of sites, meaning that when the company's servers go down, it causes a lot of trouble across the internet. It wasn't a surprise that "major technical difficulties" of ASW had led to unprecedented problems for hundreds of popular websites. Many companies of different sizes and from different industries store their data in the data centers of AWS. This includes well-known names such as Netflix, Slack, Business Insider, IFTTT, Nest Trello, Quora, and Splitwise. Many of them were impacted by the outage mentioned above. A lot of websites were completely offline, devices on the Internet of things such as IFTTT lighting controls or Nest thermostats refused to work, Amazon's assistant Alexa was struggling to stay online, not even Amazon's AWS status page worked anymore. This points to one thing – as more and more services rely on AWS's good reputation and move their websites to its servers, even small glitches in a single data center become a really big deal.