

13457

Final Term

Software Project Management

Marks: 50

Read the file Attached and answer the following

Q No. 1: What were the results of survey conducted by CHAOS in 1995. (10)

ANS:

survey conducted by the Standish Group (1995) called CHAOS drew attention to what many called the software crisis when it reported that only 16 percent of the application development projects were successful in terms of being completed on time and within budget. Moreover, about 31 percent of the projects were canceled before completion, while 53 percent were completed but over budget, over schedule, and not meeting original specifications. The average cost overrun for a medium-size company surveyed was about 182 percent of the original estimate, while the average schedule overrun was about 202 percent. the results of the survey suggest that a medium-size project estimated to cost about \$1 million and take a year to develop actually cost about \$1.8 million, took just over two years to complete, and only included about 65 percent of the envisioned features and functions.

While the CHAOS studies focused on IT projects in the U.S., a study of 800 senior IT managers from the U.K., United States, France, Germany, India, Japan and Singapore conducted by Tata Consultancy Services (2007) provides a more global view and reports dire results similar to the CHAOS studies:

- 62% of the IT projects failed to meet their schedules
 - 49% experienced budget overruns
- 47% experienced higher than expected maintenance costs
- 41% failed to deliver the expected business value and return on investment (ROI)

Q No. 2: What is trilogy and what terms and conditions were defined in that? (15)

After years of developing information systems without an overarching organizational view, the FBI found itself with an “improvised” IT infrastructure with more than 50 independent application systems written in different programming languages and running on disparate platforms. In September 2000, Congress approved \$379.8 million for a three year project that was called the FBI Information Technology Upgrade project under the direction of FBI Director Louis Freeh. At this time, the FBI did not have a CIO, documentation of its current systems, or a plan for renovating them

However,

The FBI Information Technology Upgrade project was eventually divided into three parts and renamed Trilogy. The first part would provide all 56 FBI field offices with updated computer terminals, as well as new hardware such as scanners, printers, and servers. The second part would re-implement the FBI Intranet to provide secure local area and wide area networks, allowing agents to share information with their supervisors and each other. The third part was intended to replace the FBI's investigative software applications, including the obsolete Automated Case Support (ACS) system.

The Trilogy project centered on upgrading the agency's 56 field offices and 22,000 agents and support staff with new desktops and servers, Web-enabling a number of the most important investigative database systems

The VCF was envisioned to help FBI agents efficiently share data about cases in progress, especially terrorist investigations. The system would also enable agents anywhere in the United State quickly to search various documents and allow them to connect possible leads from different sources.

Terms and conditions:

- In addition, the VCF would include a case management system, an evidence management system, and a records management system
- The intention was to eliminate the need for FBI employees to scan hard-copy documents into computer files.
- provide the capability to find information in FBI databases without having prior knowledge of its location, and to search all FBI databases with a single query through the use of search engines;
- Web-enable the existing investigative applications;
- improve capabilities to share information inside and outside the FBI;
- provide access to authorized information from both internal and external databases; and
- Allow the evaluation of cases and crime patterns through the use of commercial and FBI-enhanced analytical and case management tools.
- A custom-developed system was needed since no existing commercial software packages were available that meet the agency's needs when the project began in 2001.
- The Trilogy project centered on upgrading the agency's 56 field offices and 22,000 agents and support staff with new desktops and servers,

Q No. 3: In case study, Matthew Patton was one of the few persons who identified issues in this project. What were his findings? (10)

Matthew Patton was hired as part of the security team which reviewed the design documents describing VCF's overall structure, logic, and user interface. He identified the following issues in the project :

- He realized that (SAIC) was not interested in his opinions
- They were trying to design the system layout and then the whole application logic before they had actually even figured out what they wanted the system to do
- Patton argued that the 800-plus pages of requirements were too bloated and complicated.
- He complained that (SAIC) made no attempts to control costs with the 200 programmers who were on staff to “make work” when only a couple of dozen would have been sufficient.
- company's attitude was that it's other people's money, so they'll burn it every which way they want to
- He also claimed that SAIC attempted to write much of the VCF code when another system was already being used by the FBI and would have been more appropriate to use than coding a new email application from scratch
- That no one was taking security issues seriously

Out of frustration, Patton posted a message to Info-Sec News that mentioned he was working on the Trilogy case management system and that no one was taking security issues seriously. In his posting, he asked for help getting in touch with someone at the FBI who would care and demand accountability from its contractors. He ended with the question: “Shouldn't someone care?”

Sherry Higgins saw the message and reported Patton to the FBI's security division; Higgins called Patton a disgruntled employee who posted inaccurate and sensitive information .Patton's security clearance was revoked. Unable to continue working on the project, he ended up leaving his programming job three months after posting his concerns.

Q No. 4: Why trilogy failed and what were the reasons of its failing? (15)

Some FBI agents refer to the Trilogy project as “Tragedy,” because it shared characteristics of many failed projects: the best intentions, catastrophic communication, and staggering waste.

- There was a continuous disconnection between the FBI and SAIC from the beginning. Also, The FBI’s understanding of the requirements for the VCF project was not strong. Adding to these problems, there was a constant turnover of FBI Directors, the FBI’s lack of technical expertise, and lack of IT management. Of course the results would be disastrous for the VCF project.
- There was no proper scope management. VCF had unrealistic scheduling of tasks, overly ambitious schedules. The requirements were defined as “How” certain things should be done or look like instead of “What” the system should do. The project lacked management continuity and oversight. There was repeated changes in specifications. The project had scope creep as the requirements were continuously added to the system. There was code bloat and at one point of time the software had 700,000 lines of massive code. There was no enterprise architecture to describe how it wants to operate in the future, and VCF did not had a transition plan to achieve the goals.
- Human Resource Management involves the process of evaluating individual team member performance, providing feedback, resolving conflicts, and managing changes efficiently. There was inclusion of many FBI Personnel who had little or no formal training in (IT) projects as managers and even engineers assigned on the project lacked the technical knowledge required to complete it. Also, too many people were involved in this project and it created an environment of confusion.
- Communication is an inevitable part of project management. There was lack of proper communication between FBI and SAIC. SAIC engineers had to rework due to constantly changing blueprints. For example, the FBI told SAIC engineers to add a “page crumb” capability to all the systems after the eight teams had completed about 25 percent of the VCF project. This added complexity to the project and it delayed the development. No effective communication was carried out to solve this issue.

Note:

- Plagiarized assignment will not be acceptable.
- Make a Proper Word Document/ PDF or PowerPoint Presentation of this assignment, Picture will not be acceptable.
- Must submit before deadline.