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Exercise 1.1

It is said that government spending on IT is increasing as government departments take initiatives to improve customer service or have a wider reach of services. Find out what factors are responsible for the increase of IT spending by government agencies. Also list and explain the three biggest IT projects undertaken by the federal government in recent times? Government spending on IT is increasing for several reasons:

1. **Improved Customer Service**: Governments are spending money on technology to improve user access to and efficiency of services. This covers mobile apps, web portals, and the automation of regular services.

2. **Security Concerns**: Because of the rise in cyberattacks and the necessity of safeguarding private government information, cybersecurity has gained significant attention.

3. **Digital Transformation**: Cloud computing, data analytics, and artificial intelligence are being adopted by governments to modernize processes and increase their efficiency and cost-effectiveness.

Three recent major federal IT projects:

1. **US Digital Service (USDS) Initiative**: This initiative was launched to enhance the quality of digital services offered by the U.S. federal government. It aimed to streamline interactions between citizens and government agencies by redesigning key websites and modernizing online platforms. The focus was on improving the accessibility, usability, and functionality of government digital interfaces, such as online forms, payment systems, and applications for various federal benefits. The goal was to make it easier for citizens to access services like Social Security, Medicare, and other government programs with fewer steps and faster processing times.

2. **Healthcare.gov Overhaul**: Following initial technical challenges during its launch, Healthcare.gov, the U.S. federal health insurance exchange, underwent a major overhaul. The redesign addressed critical performance issues such as long load times, frequent crashes, and user interface complexities. Key improvements included simplifying the process for users to browse health plans, apply for coverage, and manage their health insurance applications. The overhaul focused on creating a more seamless user experience, increasing mobile accessibility, and providing clearer instructions to help users navigate the platform more effectively. As a result, millions of Americans were able to access affordable healthcare plans more easily and efficiently.

3. **Federal Cybersecurity Modernization Initiative**: This project was a comprehensive effort by the federal government to overhaul and strengthen its cybersecurity infrastructure across various agencies. In response to rising cyber threats, the

initiative focused on implementing cutting-edge technologies and security practices to safeguard sensitive information, including classified data, personal records, and national security systems. The modernization included adopting cloud-based solutions, enhancing encryption standards, improving threat detection capabilities, and ensuring that all government systems were compliant with updated cybersecurity regulations. Additionally, the project involved regular security audits and the training of government employees to prevent cyberattacks and ensure the resilience of federal digital infrastructure against potential breaches.

Exercise 2.2

Go to some open-source projects and find out about their project charters. Find out why they have those project charters.

1. Apache Software Foundation (ASF) - Apache Hadoop

Project Charter Overview:
The goal of the Apache Hadoop project charter is to provide a distributed computing framework that is dependable, scalable, and extensible. Its objectives are to guarantee a strong foundation for applying straightforward programming methods to process massive datasets across computer clusters. The charter also prioritizes openness, a decentralized meritocracy, and development led by the community.

Why It Exists:
The purpose of the Apache Hadoop project charter is to direct the development process in a manner consistent with the fundamental values of community-driven growth and cooperation within Apache. It guides the project to satisfy the rising demand for big data technologies while guaranteeing transparency and inclusivity.

2. Linux Foundation - Kubernetes

Project Charter Overview:
A system for automating the deployment, scaling, and management of containerized applications is what the Kubernetes project charter describes. The project's scope, governance structure, and strategy for community involvement are all outlined in the charter. It also outlines the obligations of different contributors and maintainers.

Why It Exists:
With its rapid expansion and widespread acceptance, the Kubernetes charter is vital to explicitly outline the project's goals and governance. Because of the project's size and complexity, it is necessary to have clearly defined roles and a governance structure in place to make sure that users and contributors are aware of how the project is progressing.

3. Mozilla Foundation - Firefox

Project Charter Overview:
The goal of the Mozilla Firefox project charter is to create a web browser that is quick, open, and privacy conscious. Its commitment to user privacy, open standards, and community involvement in decision-making is outlined in the charter. Transparency and preserving a healthy balance between user control and innovation are the major concerns.

Why It Exists:
The purpose of the charter is to guarantee that Firefox stays loyal to Mozilla's objective of

advancing an accessible and open internet. It helps contributors stay in line with the project's larger objectives for internet freedom by providing guidance on upholding user privacy as a core principle.

4. Free Software Foundation - GNU Project

Project Charter Overview:
The primary goal of the GNU Project's charter is the development of free software for the general welfare. It highlights the four fundamental liberties of free software: the ability to use, examine, alter, and distribute software. The philosophy and ethical foundations of free software are also highlighted in the charter, with an emphasis on software freedom as a social and ethical requirement.

Why It Exists:
The purpose of the GNU project charter is to maintain the project's alignment with its core objectives of offering free software that upholds user liberties. It is a reminder to users and contributors that the project aims to spread a freedom and sharing attitude in addition to developing software.