2a.

My computational artifact, Cloud Salez, represents the cloud-based point of sale (POS) computing innovation. The purpose of a cloud-based POS system is to provide an effective method for businesses to store and process their sales data to provide access to reporting and analytics (2). This goal is achieved by storing and processing the sales-related data on a cloud server. Cloud Salez represents a cloud-based POS system by storing sales-related data on a cloud server rather than an on-premise data center. Businesses can access their processed sales data in the form of analytics and reporting on the Cloud Salez frontend interface, which is accessible on internet-capable devices.

2b.

I used Google Slides to create a single-slide presentation as my computational artifact, Cloud Salez. To explain how the back-end cloud system of Cloud Salez functions, I created a flowchart using text boxes, images, and arrows. This flowchart shows the process in which Cloud Salez stores sales data on a remote server, processes the data, and outputs this processed data. In each textbox, I provided a brief explanation for each step in the process and used arrows to show the order of the steps. I also added a textbox on the slide to briefly explain the purpose and function of Cloud Salez.

2c.

Cloud-based POS systems function differently from traditional localized POS systems, as all of the business's sales data is stored on remote servers in the cloud, rather than a local server or data center. The most beneficial effect of a cloud POS system is that they are cost-effective for businesses and provide improved scalability. The price of a cloud-based POS system is cheaper because the installation process is very simple and maintenance is performed remotely by the POS provider (2). As a result, businesses do not have to hire trained engineers to install and manage on-premise servers. On the other hand, cloud-based POS systems can also have some negative effects on the business, as they can be prone to hacking and also require stable, high-speed internet connectivity. Businesses that have spotty or erratic internet connections will experience interruptions in their business's service (6). A good

ongoing security/backup strategy and a reliable high-speed internet connection are necessary for the adoption of cloud-based POS systems by retail businesses. Using a cloud infrastructure improves availability, scalability, and flexibility to grow based on the demand at the same time reducing yearly costs for businesses. This can result in tremendous cost savings by avoiding high costs for maintaining data centers, servers, hiring skilled engineers, and other capital expenses. Additionally, since all cloud providers run their infrastructure efficiently and strive to be environmentally friendly, cloud-based POS systems can be more beneficial with its lower energy consumption than its traditional on-premise counterpart (8).

2d.

The data used by a cloud-based POS system are primarily numerical and textual sales-related data, such as the name of the product, customer details, the number of products purchased, product price, location, offers, etc. The flow of data goes through multiple steps in a cloud-based POS system. The sales data is collected, transmitted, stored securely, processed, and made available for business processes and analytics. Transactions of customer purchases are collected by a POS device such as an iPad, Tablet, or smartphone. These numerical and textual data are transferred via SSL to a remote cloud server, which resides in a third-party data center. The data is securely stored on these services using data encryption techniques (4). Sales data retrieved from the cloud servers are then processed to "...offer in-depth, customizable reporting, data analytics…" for businesses to analyze and create reports(3). The processed data can also be made available via any internet-capable device to respective retail outlets to provide a real-time view of their respective store performances (1). Due to the use of cloud servers, data security is a massive concern, as cloud servers are potentially susceptible to security breaches such as cyberattacks. A hacker can attempt to disable or gain admin access to the system or the data (7). Such attacks can be very costly for businesses and could be prevented using firewalls and data encryption methods on the cloud servers (5).

2e.

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    Images used to create Computational Artifact:
9) Data Center Image:
    https://www.nakivo.com/blog/data-center-disaster-recovery-a-complete-guide/

10) POS Device Image:

https://www.pinterest.com/pin/53409945553585136/?nic_v1=1a%2BwbxO83uHQJklQllXl53mGiOl6oz8SEdBO41BerAkAnIspjkFdShxYt%2F991bErTL

11) Analytics Chart Image:
https://ig.ft.com/science-of-charts/

12) Cloud Server Image:
http://clipart-library.com/cloud-server-png.html

13) Office Building Image:
https://www.vectorstock.com/royalty-free-vector/modern-office-building-in-cartoon-flat-style-vector-5148014

14) Employees Image:
https://www.insperity.com/blog/avoid-discrimination-promoting-employees/