Research the various ERP systems on the market and make a recommendation which system we should consider? Make sure to compare at least three systems before making a recommendation.

1. **Microsoft D365**: Has two different tiers of ERP systems. One for smaller businesses called BC and one for larger enterprises called FNO. Has CRM and ERP capabilities. Particularly strong with large financial and large distribution needs. Is very user-friendly due to having a Microsoft look and feel like the Microsoft office suite. It also boasts easy integration with the Microsoft office suite. CRM side also integrates very well with LinkedIn as well. Comes with a great business reporting system. Has a very high use rate and is backed by Microsoft.
2. **Salesforce**: Very commonly used and best-known CRM system. This system tracks user interaction through the entire lifecycle of it from first contact to the final solution implemented. Attach documents and track information and notes through each step of the customer interaction. It’s an extremely flexible system, but that flexibility can create a lot of complexity in terms of integration and cost.
3. **Oracle Netsuite**: Native cloud solutions, it’s been developing in the cloud for 20 years. Great for scalability, provides business processes and workflows that can be a great entry point for companies that are just using manual QuickBooks and spreadsheets. Standardized product that can potentially limit flexibility. SuiteSuccess is a quick way to deploy the new technology, which could be a big advantage, however what takes a long time is usually the organizational change in adopting to the new system. The pricing is also fairly high for smaller to mid-size operations like us.

* I would recommend the Microsoft D365 ERP system. It offers easy integration with Microsoft office and can be extremely scalable.

I was thinking about the news of the two new future stores. Then, I started thinking about scalability. How scalable do we need our new system to be? What system requirements should we add with regards to scalability issues?

* I think we always need to keep scalability in mind when deciding on our new system for potential expansion like the one we’re going through right now. With regards to scalability as far as hardware requirements go we should ensure that we purchase hardware with high CPU capability, High network bandwidth, and high memory.

Furthermore, how do you think we should set up our computer network? Is there a topology that you think would be most appropriate for AW? Do you think we need online processing, or do you think batch processing would be adequate?

* There are a couple topology options I would consider. Star topology has the benefit of being fairly reliable, but also very fast because the data doesn’t have to travel through each node before reaching its destination, and if one node fails, the rest of them will still work as normal.
* Mesh Topology is one of the most common setups for businesses mostly for its reliability. Each node is connected directly to the other devices with point-to-point links. Because the devices connect to other devices in the network, you’ll experience little to no problems caused by data traffic.
* We could use Batch processing for things like paychecks and security update packages, however I would recommend online processing as it can be done instantly for things like appointment scheduling so we don’t get any conflicts, and with parts purchasing.

The programmers and database admin have asked about the security requirements for this system. I don't think that we've discussed these requirements. I'd like for you to think through the classes of users (Appointment setters, Technicians, Part Department, Management, Customers) and what type of access they require. Also, how do you think we need to protect the technician's machines and the server?

* Roles:
  + General Employee Role with access to the customer database, CRM, Email, and Warehouse information.
  + Management Role with access to everything in the General Role as well as the employee directory, Corporate Network, and
  + IT Role – Access to the Mainframe and UNIX as well as everything in the General Role.
* Appointment Setters – General Employee Role
* Technicians – General Employee Role
* Parts Department – General Employee Role
* Management – Management Role
* Customers – Access to tracking information on their support ticket.
* IT – IT Role

We should protect the server and machines with authentication and password management. We should utilize two-factor authentication where possible, and only give access to our sensitive information to management staff.