Dylan Dunagan

CS-255 System Analysis and Design

25 May 2025

Module 3 Assignment Evaluate a Process Model

1. Interpret the provided data flow diagram. What does it show? What does the current purchase and supply process entail?

The provided data flow diagram of Hamp Craft’s current purchase and supply process shows how the process starts at an external entity, the customer, and works its way through the process all the way the shipper, which is another external entity. Once the customer places an order, the Hamp Craft store receives it, and it then moves on to check out. This is where the process splits into two paths. If the Hamp Craft store already had the requested product, it will move straight into the shipping plan process where it will go to the carrier and then the shipper. If Hamp Craft does not currently have the product, it will through the order fulfilment process. The process splits once again. If Hamp Craft must decide on suppliers, it will go through the “Choose supplier” route, but if they already have a supplier for the product, they are able to bypass choosing the supplier. After the supplier route has been taken, it will then route to the shipper. This purchase and supply process visually outlines how external entities, internal processes, and data stores all function together.

1. What are the data sources involved in the current process?

The process’ current data sources are the customer, supplier, and carrier. Since a data source is outside of the system itself, all the data being input into the system are from these three sources. The customer supplies the system with their personal and financial information as well as what they want to buy. The supplier gives their shipment schedule and their inventories to the system. The carrier then receives the shipping plan from the system and fulfills it with their own carrier planning.

1. What additional processes are necessary to integrate an online storefront?

For Hamp Craft to create an online presence, there are a few necessary processes that they would need to integrate so that it can still run smoothly. With their current process, it is all based on a person placing an order at their store front. Of course, Hamp Craft still wants to have their in-store process, but for the online presence, they must incorporate a way for an order to be placed online. If the order is being placed online, then they will also need to incorporate a separate way to receive payment for the order. After those processes, the rest of the current process can still function effectively.

1. What additional data sources would the system need to access the products and inventory?

Because of the increase of potential buyers, Hamp Craft would have to have a new data source of what inventory their suppliers must ensure that they are able to keep up with the demand of products. With this information they can advise when products are running low or sold out before the online order is placed. Another data source that Hamp Craft will have to create is a way to store online order information and history.

1. What additional databases, if any, are needed to support the online storefront?

Since the order information would have private information, such as names and addresses, Hamp Craft would have to invest in a security method to allow for their customers privacy. This security method would also help Hamp Craft defend against malicious attacks on their own online system since payments and credit card information would also be at play.

1. Would you recommend creating a separate new system for the online storefront or incorporating elements of the online storefront into the current process model? Explain your reasoning?

Although one might initially think to create a separate system for the online process, I personally do not think that is necessary. As stated, the online process would easily follow the current process outside of the online order function. By adding the element of an online ordering system, they would be able to keep the current process, but it will just have two separate starting points. By adding the data sources of their suppliers’ inventory, they would be able to accurately fulfil their online orders without manually having to choose suppliers. They could even incorporate an automated system for if one supplier’s inventory is out of a product, it could search the next supplier. And lastly, by adding the security, their customers will feel safe using them as a company and ultimately will allow them to grow as a business