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| **1. Identify a Problem** | **PLAN** |  | **4. Propose & Implement Countermeasures** | **PLAN/DO** |
| * With the current COVID-19 situation, students and professors from UPRM do not have online access to buy their books and other educational products offered by “La Librería Colegial”. * Customers who usually shop for their needed materials in La Librería (regulars to the store) are now forced to look in different places to acquire what they need. * Only Students and professors in the West area of Puerto Rico have access to the “La Libreria Colegial” shop. However, this kind of contact still exposes them and the employees to COVID. * The bookstore’s profits must have lowered during this period. With this solution, there can be an increase. * Public enclosed spaces are known to contribute to the spreading of the virus. | |  | |  |  | | --- | --- | | Website allows shipment to other areas | Website requires user authentication (exclusive for direct members of the community) \* | | Website allows shipment to other areas | Website does not require user authentication (open for everyone) | | Website only allows product pickup | Website requires user authentication (exclusive for direct members of the community) \* | | Website only allows product pickup | Website does not require user authentication (open for everyone) |   \* Direct members are referred to as professors, students, and employees. Exclusively users with an institutional account (.edu email) can have access to this service.  The countermeasure that is most likely to eliminate the Root Cause and that would benefit most customers would be a web-based store that provides all of the Library’s services in a virtual environment and that ships the products to the customer. Both customers and employees will benefit from this. However, it will be required further planning and organization of the shipment method.  In terms of user authentication, the countermeasure that brings the most benefits is the one that does not require any sort of user authentication. With this option, everyone will have access to the service. | |
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| **2. Set the Target** | **PLAN** |  | **5. Check/Evaluate** | **CHECK** |
| * The immediate target would be to develop a web-based service for the shop. This milestone is expected to be completed throughout the course of the current semester.   + Other iterations could include an Android or iOS-based application. | |  | * It is expected that the selected countermeasure eliminates the root cause; which is the lack of accessibility to products and safety measures, in a reliable way. * This service is not intended to be offered exclusively during the COVID-19 pandemic. While this problem surfaced with the current situation, its solution will be useful at any time in the future. | |
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| **3. Analyze the Causes** | **PLAN** |  | **6. Act and/or Standardize** | **ACT** |
| This pandemic has exposed problems with accessibility that weren’t as visible before. It has forced entities all around the world to adapt and change the way they interact with people and the services they offer to them.  **The major cause for the lack of access to these products is that the store is only available physically**. This limitation is accentuated by the pandemic’s restrictions. The lack of a non-physical way to acquire these products can also lead to higher exposure for employees and customers of the bookstore. Additionally, it limits the availability of exclusive in-store products such as manuals, books, and others.  **Problem statement: People do not have access to the physical bookstore, its exclusive or general-purpose products**  **1-Why?** There is only one channel in which one can acquire a product in the store. The customer must go to the store and purchase the item physically.  **2-Why?** The store is limited to a single location, the university campus, no other platforms exist which can support its business processes.  **3-Why? There wasn’t a need to have another way of acquiring its products. However, due to recent** natural disasters and deadly viruses, access to the store has been completely cut-off. This calls for the implementation of a new way to maintain the store even when there are or are not such events, to increase its accessibility from any location.    This diagram is an example of how higher the spread of the virus in a public environment is.    Spread of coronavirus in a Wenzhou mall in China. https://wwwnc.cdc.gov/eid/article/26/6/20-0412\_article | |  | * Proper development of the service is planned in order to facilitate the future maintenance of the product so that it continues to work correctly.   + Preferred development tools are to be discussed as a group. | |