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Recommendations- SS SPTo overcome this lack of centralized system to track information proposing a technical solution would be the best possible solution. We can recommend having a centralized storage location such as Database for storing data. A database such as MySQL would be optimal to use in this case for the following reasons: omers for future maintenance which can retrieve customer's information. For already sold products, we can provide additional discounts for registering their products online, by this we can retrieve old customers. Following are some other benefits of having a database· Scaling of businessMultiple users can access the database software from multiple locations at once. Employees will be able to login at the same time from multiple locations.

· Providing data SecurityCompany owned valuable data can be safeguarded as illegitimate attacks can be eliminated by authorization. If anyone is hampering the data it can be easily caught as the latest changes will be logged by the database software.· Supports Multiple viewsMultiple user can be given access to users/employees to view different data according to their role in the company. For example, the managers of the company will have many views, whereas the other employees will have restricted views of the database tables. · Reducing the complexityIn business it's very important to have a track about the current status (product information), a database system will allow the current status to be known to everyone. For example, the current status of an order will be known to everyone thus responding the customer regarding their order status will be

fast. · Helps in making critical business decisionsCurrent status of data obtained from database.

Based on that reports can be made which can help managers take some critical business decisions. · Improving customer relationshipRelationship with the customers will be improved as we can update customers regarding their order in minimal time period as employees will be able to retrieve customer data easily or either by triggering some automatic alerts. Relationship with the can also be built by sending automatic promotional emails from database.

Outsourcing the development of the database would be best as Horner does not have an IT department. For this our team consulted with a firm called CRT Associates & Inc. CRT produces data management products.

They use Linux, Apache, MySQL, PHP to develop cloud data systems that are accesed primarily using a browser. The designs are can be used by both desktop and mobile devices. The system CRT will develop would containing two parts, a back office data management part or dashboard and a front facing part, or " the app", that consumers of the data interact with. They often use third party data management software to speed up development of the project.

These are usually products that provide quick data entry screens and a consistent user interface for MySQL tables. Data integrity and security are most crucial for our project. So whenever possible only the correct options would be provided to the data entry person to maintain consistency. Implementation: The most appropriate projects for agile are ones with

immediate deadlines, a high degree of complexity, and novelty to them. If it’s something the team has done before then the team probably doesn’t need an agile approach. Since this is the first time Horner would be working on such a new project, We would suggest using agile methodology for this project. We can use SCRUM along with JIRA (integration tool) to implement this solution effectively.

Implementation in 7 steps: 1. Define first Scrum team: In our case the Scrum team includes Horner and CRT (company who would develop the database for Horner). This team would include software developers, testers, designers, business analysts, etc. All the members of this team need to continuously work together.

2. Define Sprint length: A sprint can last between a week and 3 weeks and typically remains the same for the duration of a project. Horner and CRT can plan meetings and work for that sprint can be planned. At the end of the sprint a review/meeting can be held where the improvements are reviewed and work for the next sprint can be assigned. 3. Appoint a Scrum Master: We can have the Senior programmer at CRT as the Scrum Master for the Scrum groups.

The Scrum Master guards the team and its process, keeping an eye out for Scrum smells and removing impediments to productivity. The Scrum Master’s responsibility is to assist the team in planning the work for the upcoming sprints. 4. Appoint the Product Owner: We can have the President/CEO of CRT and Horner as the Product Owners of the Scrum group.

They would be in charge of making sure the team produces value from the project to the business. They have the responsibility to write the client-centric requirements in the form of stories, prioritize them and provide them to the backlog. 5. Create the initial product backlog: The product backlog is a wish list of all of the user stories (requirements) that is expected to be completed in the project. The most important requirement goes on the top of the list, thus the entire backlog is ranked in order based on story importance.

A backlog has typically 2 types of work items: a. Epics: High level stories that are roughly sketched out. b. Stories: More detailed requirements for what should be done. An epic can typically be broken down into several stories. The Product Owner has the freedom to re-prioritize the backlog as he sees fit, at any point in time. 6. Plan and start your first sprint: The team now picks items from the wish list based on prioritization.

The team brainstorms and decides what can be done in the upcoming sprint. Once the decision is made, sprint is started and the team starts working on the stories. 7. Close the current and start the next sprint: When the end of the sprint is reached, all planned work for that particular sprint should be done . If that is not the case, it is up to the team to transfer the remaining work for the next sprint or be put back into the backlog. The team now does a retrospective where they discuss if the work went well and if not what improvisation is needed for the next sprint. After that, the sprint planning meeting for the next sprint is starts and process is repeated till the project is completed.

In our case we need a deadline since most of the key employees at Horner would be retiring soon and we would need time to train the new employees. Actions done in SCRUM: 1. Planning meeting: The SCRUM group can plan meetings via video conference calls (since CRT is located in Germany) and select a user story from the backlog and brainstorm on it. The SCRUM group then decides the depending upon the complexity of the story if it should go into the sprint.

2. Completing the work: Once the team members complete their work on the stories, they are ready to move on to the next one. 3. Daily SCRUM meeting: Through the sprint cycle, The daily SCRUM meeting is held to keep a track of the work. Each team member is needed to meet for ten to fifteen minutes to discuss where they are at. They need to keep a check on how much the work is completed and how much more work needs to be done yet. 4.

Sprint review meeting: After each sprint, the team holds a Sprint review meeting to inspect the increment. The Product Owner and everyone else who is interested collaborate to check what has been done till now and what further improvements need to be done to optimize the final product. 5. Retrospective meeting: In the retrospective meeting, the SCRUM group meets and discuss about what exactly went well and what did not and which actions items need to be acted on.· Open source software (anyone can use it for free)· Easy to use· Minimal implementation cost (almost negligible)In correspondence to Horner’s problem having a database management system will allow employees to store, organize and manage notable amount of floor information within a one software application. All the information related to portable floors will be maintained in single storage

location which will save lot of time on tracking the product (portable floor) information.

Increasing the overall productivity of the process. Employees will able to track the floors sold to cust