Bill's Travel Service Major Project

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Our Development Approach

For our development approach, we are choosing to go with the Agile Development Extreme Programming (XP) approach. We feel that this approach will best fit what BTS is looking for because this SDLC methodology is founded on four core values that align with BTS's business model. These values are communication, simplicity, feedback, and courage.

Rapid feedback and communication with the end-user are necessary for this methodology because it allows the developers to make incremental changes to grow the system, so the developers do not just accept changes they embrace them. Also, using this methodology comes with a quality-first mentality which would prove beneficial to the company to achieve the best quality. Three principles of the XP approach are that can help achieve the best quality system include continuous testing, simple coding done by pairs of developers, and finally close and constant interactions with end-users to help build the system more efficiently.

Because BTS is looking for ways to improve their processes and managing of data, being able to work closely to continuously test and improve on the current system is what makes this development approach a great fit. Also, this methodology implements daily testing of code in which, if bugs are found the code is backed out until the bugs are fixed.

Technical Feasibility Analysis

My group members are comfortable with the functional area of the business because we have a good point of how the service is operating. We have examined many features about it such as the booking, price, room capacity, and confirmation. The only thing about people and processes is the capacity because I am not sure how many guests will be coming to the resort. However, I will have to determine ways that can meet the guest's needs. This entire process is all about registration which involves using internet and technology.

The only technologies that are used to make the system are the card machine to make a contactless payment, a tablet for signatures, and a website for registration. However, because registrations are done by phone, no one can understand the information from guests such the pronunciation of their name, the payment information, and the email address. As far as I am concerned, we should be able to develop a website to make it easier for guests to provide their information through a form. Also, the user can select how they can be contacted not only by email, but by phone through texting.

My group members are satisfied with the technology that was discussed because we have read the whole scenario more than once and got a good understanding what is expected for a particular guest. Examining the key details in the story, has contributed to finding ways that can make the service better. Those who have registered will be sent an email that contains a barcode, and upon entering the resort, they are required to scan their QR code. Having a fake barcode will not allow any guest to come into the resort which is good because it can detect if the barcode was generated. It is also good to keep cybercriminals away when they print out a fake barcode. Security is a good thing where it allows guests who have registered to come into the resort.

I think the project size will be huge because there are a lot of requirements that this project needs including:

- A way that guests can pay using contactless payment
- Should they require cancellation, they can email, text, or call the company
- A system that can generate a QR code upon confirmation
- A cart for carrying the suitcases (max weight: 350lbs/159kg)
- A registration system/website
- Elevators to carry carts as well as those who are disabled such as those in a wheelchair
- Finalize the list after the deadline
- Send the receipt after payment (this will be sent by mail)
- A database that can keep track of guests who have registered
- A software that keeps track of signatures by name, date, email address, and the duration of stay

- A price per person (example, $75/person)

According to all that information above, it will take about 64 people to complete since there is a lot of work to do at the resort. This is a big project that is being done and so from my perspective, it will take about 6 months to finish. We will need to hire web developers, hardware engineers, and programmers to help improve the service. Such in a way that can meet guest's needs like how Apple made the Apple Pencil for the latest iPad to draw something. This is a great connection where guests can sign digitally to reduce paper waste.

The state of this system is outdated since it only supports phone calls. It will be compatible with a website because it is easier for guests to register instead of having to call. The impact of this can lead to paying a lot of money for a phone call of $0.99/min. The only thing that will remain is the confirmation because the guest will need to know if the booking was successful or not. As well as that, the database will remain in the system to store a particular guest's information.

The System Request

System Request:	**Bill's Travel Service**
Project Sponsor:	Ethan Chen, Quintyn Taylor-McNutt, Honore Signe
Business Need:	We needed it to make some improvements towards the service. Such in a way guests can book a room at a resort other than phone, and by developing technology that other companies such as Apple have used to make their products realistic. It is necessary to have all the technology up to date because it would make it easier for guests to connect and register. Due to this, guests will be able to enjoy their stay at the resort after they finished booking.
Business Requirements:	This service is not running properly and needs to make some improvements. Our plan is to think of ways that can make service better than before. Such a way that guests can register for a room besides phone, having to use a database instead of paper to reduce paper waste, and a text alert to let others know which rooms are available so that they can book early. All of this will require a lot of work to enhance the service.
Business Value:	The expected value that will be provided is about $31,571.99. The project's tangible value is easy to measure because it measures the amount of people registered per day to determine if there are any rooms remaining. There are also calculations that can determine the cost of cleaning rooms after staying at the resort so that newer guests who registered can come into a room that is prepared. This project promises about the feedback from guests after they enjoyed their stay at the resort. Feedback is important to know what they can do to improve service, such as being a little more organized, and maybe the technology involved in it. Google can use this information to share it on the internet and recommend it to others who have never been there before.
Special Issues or Constraints:	From what we have described so far, we have not discussed a particular solution of registration. Developing a website with a database will allow any information to be added to it. This can be done by creating two separate files: .php and .sql. PHP is considered to determine if the user does not exist

	when registered in the database itself to keep track of which guest has a particular room booked.

Functional and Non-Functional Requirements

Here is a list of Functional and Non-Functional requirements for this system

Functional Requirements	Non-Functional Requirements
- Requires that information about the guest such as the duration of stay, their name, the number of people carrying with them, and their email must be received upon booking - Sends confirmation email to those that book the resort - Close booking after the due date - Keeps track of rooms that are available at the resort - Make sure that the room is prepared for booked guests arriving at the resort	- Emails should be sent upon booking confirmation - No late bookings are allowed - Should they require assistance, there is an option on the website to specify what disability the guest has - If a guest has a room booked and wants to cancel, they should call or email the company no later than 6pm

Choosing your Analysis Strategies

The two analysis strategies that we will use are outcome and technology analysis.

Outcome Analysis

Let us start off by talking about the first analysis strategy and how it will be used to analyze the business problem. Outcome analysis is the analysis that focuses on the fundamental outcomes that provide value to customers. In using this analysis along with the gathering techniques, we can improve our services according to the perception of the customers themselves. This will result in an all-around easier and more effective way to book use the system because the outcomes will be fundamentally beneficial and geared towards the customer whether that be, easier ways to book, or even review booking information (prices, dates, etc.).

Technology Analysis

Now, let us explain the second analysis strategy and how it will be used to analyze the business problem. Technology analysis is the analysis of technologies and how they could be applied to the business process to improve the process and benefit from it. With the improvement in technology in the world today and its usefulness of it in a business sense, there should be plenty of incentive to implement some technologies into the business process. Ways of doing so might include, in addition to the phone registration, maybe a website to register on. Or a more effective way to keep track of information such as using a database.

Choosing your requirements gathering techniques

Questionnaires

Providing the project owner with questionnaires to complete might be a useful beginning point or supplement to interviewing. To gather qualitative information such as details on how the registration process work, the services offered, the goal of the travel service, the technology used, and the level of security, open-ended questionnaires will be more valuable. The project owner has a lot more freedom in how to answer questions in open-ended surveys. There are no pre-determined responses. Based on your understanding of the project owner you are surveying, there may be some predictable responses. When responding to open-ended surveys, the project owner has the freedom and flexibility he needs.

Interviews

Sit down with the project owner in a room and find out what he requires and the expected role of the travel service. It is a fantastic strategy to know the project owner's needs to ask open-ended questions and get him talking about his expectations for the travel service in addition to the information gathered through the questionnaire. This method is far more customized, and it can occasionally lead to more accurate data collection. Interview data is frequently extremely individualized, and it can reveal unique insights that you would not get from typical questionnaires.

Observation

It is important to observe the travel service in action to learn more about what happens on a daily basis. This includes things like watching rooms when guests leave to make sure that no criminal is breaking in the resort, and keeping track of actions performed per day.