

Discussion

Description of the problem

The name of the company for which I will be developing my project for is Bolton One. Bolton One is a sports and leisure centre situated in Bolton, providing excellent sports facilities which range from swimming and other sports sessions available for booking to a daily gym available to members as well as one-time customers. More specifically, the area of Bolton One that I will be looking to develop my project for is the Jason Kenny centre which includes the gym along with all other sports facilities. The site is relatively new only being built in recent years (Est. 2012), including a £1 million refurbishment having took place over the summer of 2017. Funded by Bolton's very own council as well as The Bolton Community Leisure Trust, they seek to 'help to achieve increased participation in sport and active recreation amongst all parts of the Bolton community.'

Current System

- Bookings available for dance and sports halls, can be made over the phone, in person or online via the website or email, although requires customers to sign up online even for one time use only.
- Online bookings require an 8 day in advance booking.
- Once bookings are made staff manually book them into the system in accordance with the customers chosen times.
- Payments to made in person on the day of booking or in exceptional cases payment within 48 hours may be permitted by the Centre Manager.
- If a customer must cancel a booking they must notify the Centre 48 hours in advance, to which the booking will then become available to any other customer.

Problems

The booking process is inefficient and does not maximise the use of the sports facilities available to customers. The most common method of booking is over the phone, which can be quite a lengthy process as the member of staff has to inform the customer of all available slots to book the sports or dance hall, if there is any at all, to which then the customer has to choose a time and wait for the member of staff to book it manually on the system. With this already being a slow process, if in the event there are no slots available or preferable for the customer, the customer has no choice but to leave without their preferred booking or at least with one that is later than anticipated. This is also the same for the other means of booking the sports facilities within the Jason Kenny Centre. This is a huge inefficiency with the way they deal with their bookings. This issue remains true for the way they deal with their cancellations too. As a customer of the Jason Kenny Centre myself I have first hand seen these issues, which includes massive miscommunication between the Centre and its customers with regards to cancellations. Although customers are asked to cancel bookings 48 hours prior to the date of bookings, once appointments are cancelled there is no attempt to rebook that allotted time to another customer, in particularly a long-time member of the

Centre, which not only cites miscommunication on behalf of the Centre with the customer, but also a massive gap for improvement in the current system that is used.

Furthermore, the payment system currently in place can also be in need for improvement. Currently payments must be made on the day of the booking in person, by cash in hand. However, this provides many problems for the customers, first and foremost being the need to remember to bring in cash to pay for the booking, which when intending to take part sporting activity, is one of the last things to think about. Also, again from my experiences as a customer, bookings of halls are for many to use (E.g. Football) which means all the people who are attending, must remember to bring their money, rather than having the payments sorted at a time prior to the booking. As well as that due to money being given in hand this money has the potential to be miscounted or even misplaced, as staff members may not double check the amount of money paid, as they are usually paid in smaller amounts, due to the payments being split between several people. This is an example of an organisational issue caused by the simplicity and relaxed system currently in place which could also lose them money and in the long run customers too.

Broad Aims

- Basic system features such as the ability to allow staff to search/add/edit customer details and update them if necessary. The members of staff will be able to view the bookings of any customers and even allow them to change them if necessary.
- A login screen to allow the user to access their account or create one if necessary to allow the compilation and tracking of all customer bookings, information and payments. This will be a simple user-friendly login screen suitable for all customers. Which would display the dates available in a list (Drop down menu) for customers to choose from. The dates and times would be on separate menus.
- A payment system, which will allow the customers to pay for their booking at the time they make their booking. Would require a database to hold all the customers information, including a history of payments made by them as well as all their bookings made, past and future. The details would be stored when creating an account and would only require pin number to pay for the booking. This will also be used to provide the users with a receipt and confirmation of their booking sent to them via text or email.
- Calculations may also be made on the payment system depending on whether they are a member to provide a discounted price if they are eligible for it.
- Must hold customer information securely. May look to potentially encrypt the data to keep it secure in the event of any malicious treatment of the system.
- A much-improved booking system potentially via app or online in which available slots are regularly updated, allowing customers to see which times they can book straight away. This will also require a database structure to hold all customer information to uphold the consistency of data and improve organisation.
- Website/application which can be linked with the booking database to update booking when a customer makes one. Will require the use of transaction files and batch processing to allow for smooth and efficient updates without losing data.

- A way to cancel bookings, similarly will be linked to a table to update data, in this case to remove a booking, making it an available slot for others.

Limitations of planned Solution

Considered:

- My proposed solution will not have a cloud-based service. Although an efficient way to store client data securely and quickly, due to the time frame on this project it may not be possible. Also, this is only a proposed solution and may be a viable option to be used for a solution with the right resources and time frame to do so.
- For similar reasons, my system will not have social media integration with the ability to advertise slots online or the sports centre itself. Again, this is due to limitations caused by a time frame as well as limited resources, as it would also require permissions from social media sites themselves to advertise, although it would be another idea to consider for a finished project.
- Also due to the focus of the proposed solution being heavily based on the booking of the sports hall and facilities, there will be no other promotional updates to members related to other activities within the centre such as sports courses, or even gym promotions/discounts on special occasions. (Although the discounts for members would still be a function of this system) This again would be considered for a much larger system, more likely suited for all departments of the Centre.
- Network limitations – I won't be able to create an app system that is fully functional due to network limitations and permissions that restrict me on this. However, I will still design and mimic this system, to show the effectiveness of it.
-

Not Addressed:

- Ability to book other services provided by the sports centre, such as courses or personal trainer sessions. This is due to the focus of this project heavily being based on the booking of sports halls.
- Calendar sync, the ability for the customers to sync their own personalised calendar with bookings automatically added to them. This would potentially require a third-party app to do so again needing external permissions.

Feedback

For my feedback I presented my discussion briefly to my class mates describing to them the problem of the system that I am planning to improve. With this they provided me with feedback on the possible pros and cons of the system allowing me to see if my proposed solution is feasible and if in some cases not, where and how I can improve it

Feedback from classmates

- **Customer updates on bookings** – one of my classmates suggested that I change the way I contact the customer on new bookings. They said to give the customer a range of options to contact them, whichever convenient, rather than just email. This is a suitable idea which could help improve the user experience of the system.
- **Levels of access** – my classmates also suggested to improve the security of the system through maintaining confidentiality. This could be done by having certain levels of access for staff members. This includes staff logins via username and password to keep the system secure. Each staff member would have to login to use the system and a track record of each login would be kept in an archive for security purposes.
- **Backup system** – my classmates asked whether I had a suitable backup strategy if the system were to fail, suggesting having another system in place. I decided that the best back up would be a paper-based system which is like the current system. Bookings would then be made by phone or in person as it is in currently.
- **Login/GUI page** – a suggestion was also made to improve the environment of the interface, making it more user-friendly. Rather than using drop down menus to choose booking dates and times they suggested adding a calendar-like list making it easier to navigate the screen and add bookings
- **Encryption** – a suggestion was made to remove the encryption of data for the bookings. This could become a security issue as the personal data of customers is stored on the system.
- **Broken equipment** – a suggestion was made asking whether customers would have to pay for broken equipment that occurred during their booking.
- **Unattended bookings** – a classmate mentioned that a problem from the original system was unattended bookings and said that I didn't address that in my broad aims. They asked whether they would make the customers pay even if they didn't show up due to a lost booking. This would be a huge help to the system and would save them money as they would either still get the money for the booking or stop people from skipping on the bookings they have made without any prior notice
- **Block bookings** – a classmate asked whether customers would be able to have the same slot booked out for multiple weeks rather than having to book the same slot each time. This is an idea that improves the efficiency of the system for both staff and customers as well as making it easier for customers, who wish to make multiple bookings, to pay as they could potentially pay in advance for all those weeks.

- **Payments** – my teacher asked whether it would be inefficient for one person to pay for grouped bookings, especially if a different person pays each time. Instead each person could contribute to one payment with each of their accounts linked to the ‘virtual wallet’ which pays the booking. This again would be a massive improvement in efficiency.

Revised Broad Aims – after feedback

Alterations/Additions:

- Customers will be notified on newly available bookings if previously they had made interest to book one that was unavailable. This will have an opt out option for all customers. Other customers unaware it had been previously being booked would be able to check the app. This is to avoid constant spam of customers if they are not interested.
- Staff members will each have separate user logins each with different levels of access, to allow only members of staff to access all the customers information with others just enough to make bookings and maintain the system. This will provide a more secure environment for the customers information but also prevent any breaches of data. These logins would be easily tracked and would require staff to frequently change their passwords i.e. every month as a further precaution.
- A back up system in place which would return to the previous system in which customers would call or email to book the facilities, in the event the app fails.
- The booking page screen would have a calendar of dates to choose from rather than a list to allow ease of use for customers when booking. For each date there will then be a drop-down menu to provide times available on the chosen date.
- My system will also allow block bookings to be made. From my feedback I realised that this will make my system more efficient. This will allow customers to book the same slot of their choosing for up to six weeks. They will also be able to sort the payment out for either, all paid in advance or at the end of the booking period. Eg they can choose to the total sum at the end of the six weeks in one go, allowing them to not worry about the money.
- My system will allow multiple customers to link their payments towards one ‘virtual wallet’ which would be linked to a certain booking. This will therefore mean each person can contribute to the fee and it would update each time, keeping a log of those who have paid and those who have not, making it easier to deal with issues with payments.
- My system will now also keep a log of all bookings unattended and the customers linked to that booking. This will also keep track of the money lost from this and who owes money for the booking missed. This will help with the financials allowing them to see where they can identify the problem and minimise losses.

Considered (but rejected):

- Badges for staff members to scan in with rather than user logins. This however be another limitation of this system as for this time frame a login would be easier to manage and maintain. The badges would also require large money amounts to create them and get them working.
- There will be no encryption to protect the customers data instead there will be different levels of access for staff to prevent mistreatment. Although it would make the system more secure, instead staff training would be done to ensure the security is maintained.
- Broken equipment - Although it could be useful to keep a log of this on the system, I feel this is irrelevant as it isn't a main requirement for the system and doesn't necessarily need a system feature to do this.

Evidence of feedback



Presentation

Discussion

Shakhawath Shah

Current system

- Bookings available for dance and sports halls, can be made over the phone, in person or online via the website or email
- Once bookings are made staff manually book them into the system in accordance with the customers chosen times
- Payments to made in person on the day of booking
- If a customer must cancel a booking they must notify the Centre 48 hours in advance

The problem

- Bookings - Staff informs the customer of all available slots, to which the customer has to choose a time and wait for the member of staff to book it manually on the system. If no slots available or preferable for the customer, the customer has no choice but to leave without their preferred booking or at least with one that is later. This can be a waste of time.
- Cancellations - once appointments are cancelled there is no attempt to rebook that allotted time to another customer, miscommunication with even loyal customers.
- Payments - Currently payments must be made on the day of the booking in person, by cash in hand. Customers need to remember to bring in cash to pay for the booking. Payments could potentially be lost as they are usually payed in small amounts from various people, (e.g. in change) so money could be miscounted.

Broad aims

- Basic system features such as the ability to allow staff to search/add/edit customer details and update them if necessary
- A login screen to allow the user to access their account or create one if necessary to allow the compilation and tracking of all customer bookings, information and payments.
- A payment system, which will allow the customers to pay for their booking at the time they make their booking. Will need a database to hold all the customers information, including a history of payments made by them as well as all their bookings made. Will also provide the users with a receipt and confirmation of their booking sent to them via text or email.
- Booking system potentially via app or online in which available slots are regularly updated, allowing customers to see which times they can book straight away. This will also require a database structure to hold all customer information to improve organisation.
- Website/application which can be linked with the booking database to update booking when a customer makes one. Will require the use of transaction files and batch processing to allow for smooth and efficient updates without losing data.
- A way to cancel bookings, similarly will be linked to a table to update data, in this case to remove a booking, making it an available slot for others.

Limitations

- A cloud-based service - an efficient way to store client data securely and quickly, due to the time frame on this project it may not be possible. Also, this is only a proposed solution and may be a viable option to be used for a solution with the right resources and time frame to do so.
- Social media integration with the ability to advertise slots online. Again, this is due to limitations caused by a time frame as well as limited resources
- Calculations of discounts and promotions when paying for booking.
- Ability to book other services provided by the sports centre, such as courses or personal trainer sessions.
- Calendar sync, a personalised calendar with bookings automatically added to them.