Greenwich Community Theatre:
Project Management Report

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A report submitted in fulfilment of the requirements for the module, Systems Development Project, Computing and Information Systems Department, University of Greenwich.

Contents

Smart Objectives

Smart Objective 1:

- Within the allocated time-period (6 months), plan to improve and expand the buying methods that customers are provided, adding an online payment method that gives multiple ways of collecting the tickets that were not available before the online database. This will be done by implementing a VISACheck system that links the customer's bank details to the theatre's bank details. Due to this however, this method will only be applicable to those willing to pay using credit card. This will aid in speeding up the work process which will attract more younger customers due to the modern streamline system that they are already accustomed to.

Smart Objective 2:

- Within the allocated time-period (6 months), add a system that allows the customers to write online reviews on performances that they have already seen. This survey will help sway the opinions of potential customers, as they will now have a reference point in deciding whether to watch a specific performance. This will allow for more product placement and raise awareness for the shows that are available, as there will be a much more modern advertising platform than your regular 'word of mouth' recommendations.

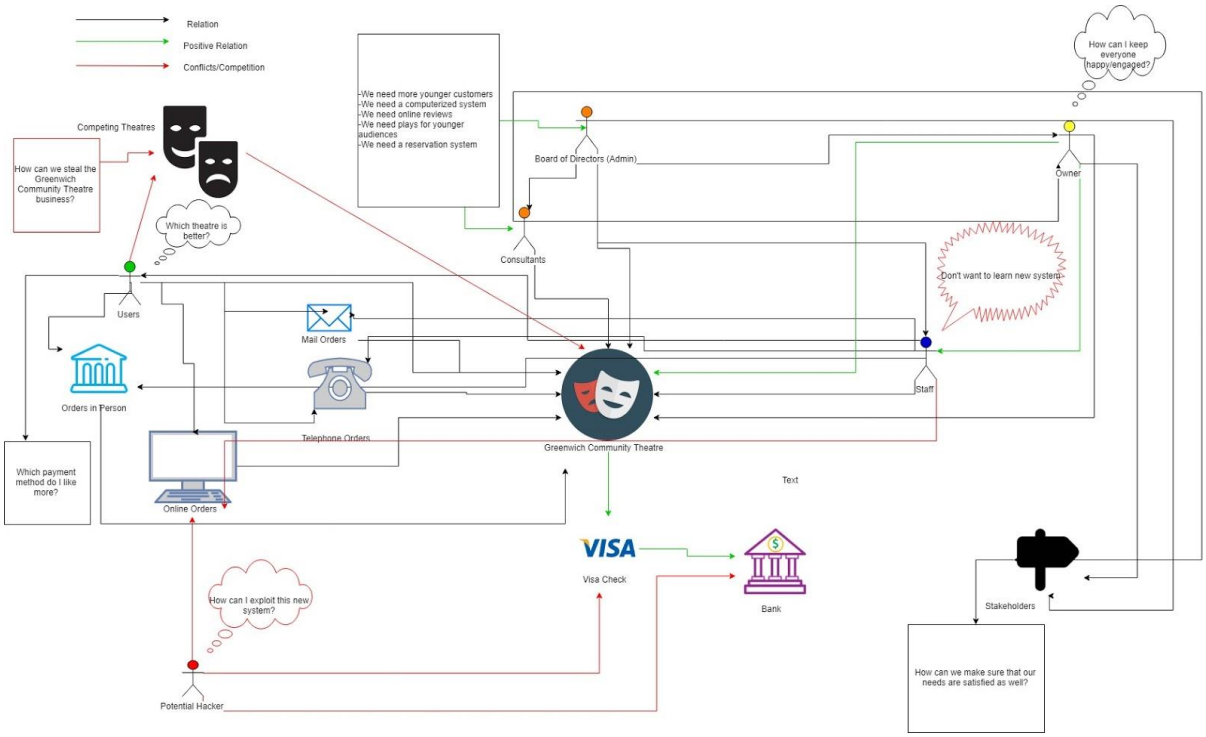
Smart Objective 3:

- Within the allocated time-period (6 months), aim to expand the theatre's services to produce plays and performances that appeal to younger audiences. The younger demographic would not be wrong to think of the centre as an outdated place, as it is adopted from an old Victorian building, and any assumption that the theatre runs older plays or plays just for children would be completely valid. However, changing this preconceived notion by scheduling performances that cater to their interests would lead to more sales and customers, especially from the younger audience. This could also be integrated with the proposed system that discounts tickets for example (10 % between Monday-Thursday); giving the under-18's or under 21's a 15% discount, almost like the idea of a student discount.

Smart Objective 4:

- Within the allocated time-period (6 months), aim to create an online system that allows customers to make reservations in advance for a desired performance. This will include, but not be limited to, letting the customer choose their preferred seating arrangement and estimating individual/group quoted prices. These reservations can also be discounted to entice more customers into choosing this option. This will result in larger variety of groups, and more people buying tickets to the shows, further increasing ticket sales.

Rich Picture



Root Definition and CATWOE

Root Definition:

A Greenwich Cultural Centre Authority owned system, to offer customers and potential customers a new avenue to purchase and enjoy theatre performances (x), through the development of a software based system designed by consultants, as well as a two-week staff training workshop (y) to accomplish the goal of the Greenwich Community Theatre, which is to ease the sales staff into the new hybrid workplace, and automate the process of booking tickets to save time and money, increase ticket sales and attract more and new customers (z).

CATWOE:

Customers	• Existing staff • Theatre performers • Potential staff and other customers • Theatre staff • The public • External stakeholders

Actors	• Consultants • Board of directors • Managing director • Theatre staff • External stakeholders
Transformation Process	• Change the ticketing system to add an online automated system to buy tickets in much further advance • Create an online system that allows customers to make reservations in advance for a desired performance • Create a system that allows the customers to write online reviews on performances that they have already seen • Expand the theatre's services to produce plays and performances that appeal to younger audiences.
World View	Board of director's view: • Move a large majority of the sales online and in the future, aim to have (at the least) the same amount of sales with the new implemented system. • Complete the project within the allocated time-period (6 months) and stay within the £40,000 budget • Complete the project with no outstanding issues/conflicts. Developers view: • Increase sales and customers, which is based on the belief that people will buy tickets through the internet. • Implement a system that is modernized yet robust enough that the current staff can adapt it quickly and effectively. Staff view: • Maintain their current responsibilities, since they do not like the idea of sitting going digital and changing the old system. • However, they must also learn the new system or risk being replaced by incoming staff, a small sacrifice by them benefits the entire business. Public view: • Theatre should maintain quality of performances that they have already managed to reach. However, the aim is to see a much-improved Greenwich theatre. • Improved theatre should benefit the community.
Owners	• Board of Directors of the Greenwich Culture Centre Authority

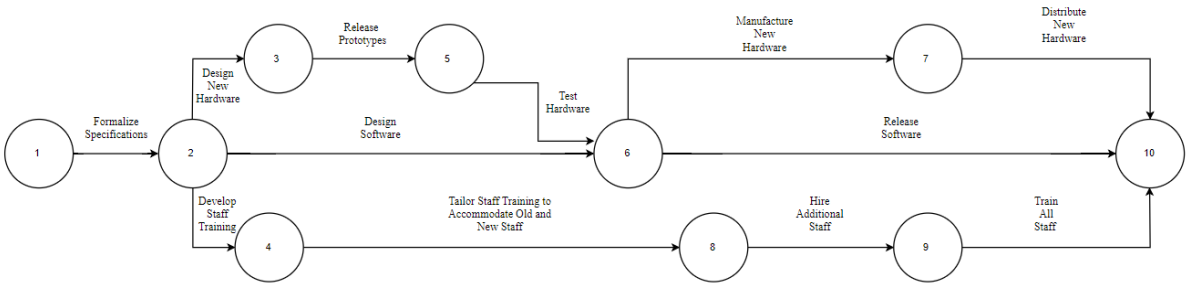
Environmental Constraints	• Conflicts between board of directors, managing directors, consultants, staff and the public • Budget • Consultants skills • Competition • Job satisfaction • Time constraints

Discussion of key stakeholders:

Potential internal stakeholders in this model would be the owners, directors, employees and the consultants helping to run the project. The external stakeholders would be the creditors, governments agencies involved with the project, such as the borough that the theatre itself is in, which goes hand in hand with another stakeholder which is the community. Other key stakeholders would include the suppliers of the equipment (whether physical or in this case digital) needed to complete the transformation from the old system to the new one. These stakeholders are crucial because the quality of their work depends on the budget given to them, and the more they have to work with, the more successful the project is likely to be.

Project management documentation

Pert Chart:



Documentation:

Activity #	Activity	Duration (weeks)
-	Formalize Specifications	1
1	Design New Hardware	4
2	Develop Staff Training	1

3	Release Prototypes (Hardware)	2
4	Design Software	4
5	Test Hardware	2
6	Tailor Staff Training	1
7	Manufacture New Hardware	2
8	Release Hardware	1
9	Release Software	1
10	Hire Additional Staff	3
11	Train All Staff	2

Costs Breakdown:

Resource	**Cost (£40,000 budget)**	**When would expenditure be incurred?**	**Within budget?**
Returning staff	Free (in reference to costs already accounted for)	N/A	Yes
Equipment (Hardware)	£15,000	Before staff have been trained on how to use the system,	Yes
Equipment (Software)	£10,000	After staff have been trained, hardware has been bought. Software to be installed on hardware.	Yes
New Staff	£5,000	Throughout the process.	Yes
Advertising	£5,000	Before changes: To excite the public about the changes coming to the theatre. After changes: To entice the public into buying tickets to experience the changes.	Yes

Implementing VISACheck	Free	After online payment system has been established.	Yes
Other miscellaneous uses	£5,000	After entire project has been completed, if any features can be added.	If needed, yes

System Development Methodology

The system development method that I believed would be best suited for this project was a close call between the life-cycle (waterfall) method and the agile development model. The extreme programming and spiral model were eliminated. The agile development model was perfect as it is aimed to be used when changes need to be implemented immediately. The fact that each actor in the system had their own small individual role to play (ex: old staff learning the computerized system) meant that it would ensure fast change during the project. However, the negatives of using this system swarm around the idea that it is a high-cost system, and there were strict requirements handed out by the board leaving out room for error. The waterfall model is perfect for large and expensive projects which to an extent, developing a new software system is. The users of the business (public) are also fully knowledgeable to its purpose so there would not need to be a great deal of change in that aspect, and the project requirements were well documented by the board of directors. There were a lot of negatives regarding the use of this system as well though; many of them stemming from the fact that is a largely software-based project. The system would require the use of web information systems to display the theatre info (performances, prices, seating etc.) and run in real time, as the user could use it at any given time. There is also the issue where many of the sales staff are not keen on the new computerized system, leading to conflicts surrounding the changing theatre requirements. Using the process of elimination and the analysis provided above, I was able to concur that the agile development model would be the best suited system development model to effectively complete this project.

Functional/Non-functional Requirements

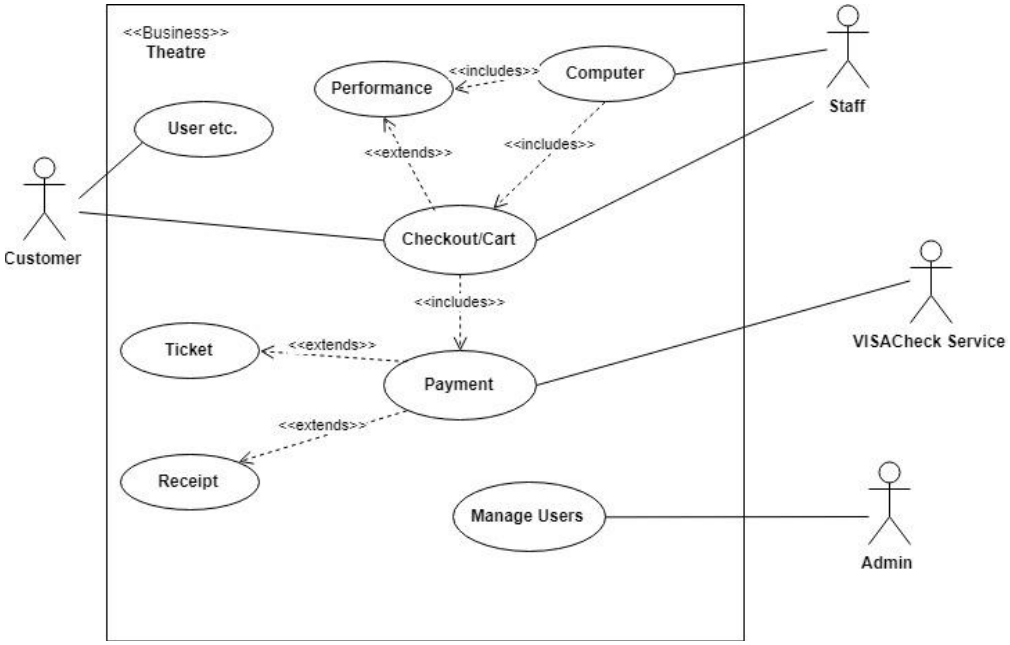
Shown below are the functional and non-functional requirements for the proposed system.

Functional	**Non-functional (and why system should have it)**
-Ability to allow user to buy performance tickets online using the VISACheck system.	-Easy usability: The system must be easily adaptable to the system that is already established to aid in a seamless transition for both the staff and customers. Making sure

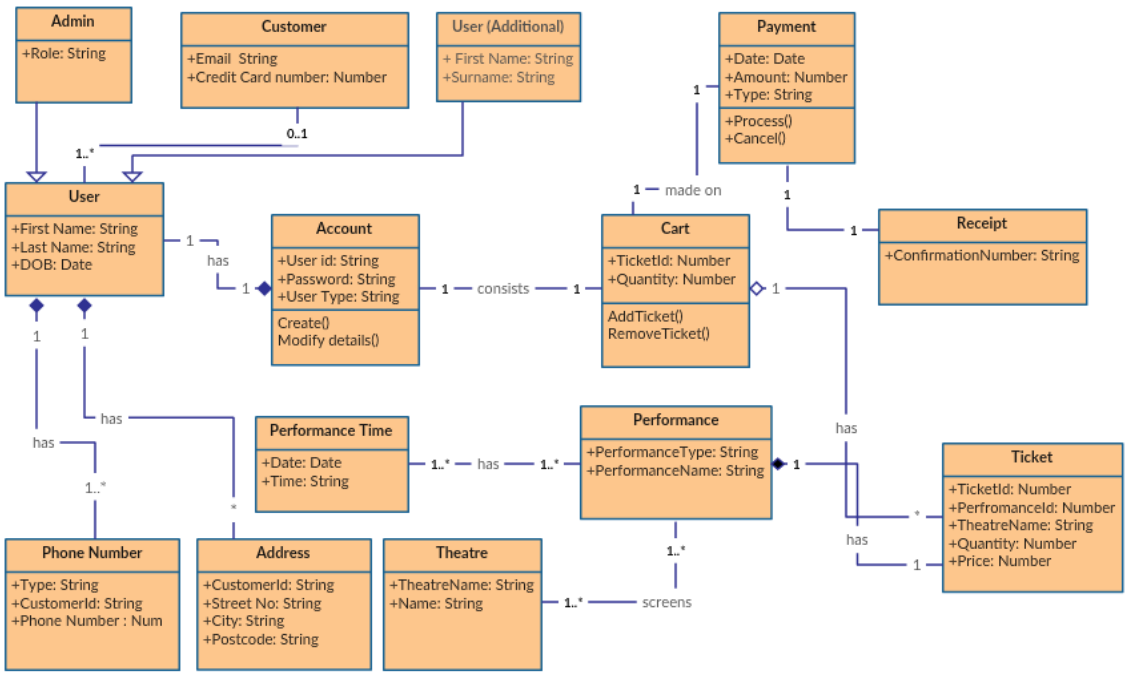
	there are no organizational constraints is key as well, as some of the staff are already reluctant to change.
-Ability to allow the user to make reservations and choose seating using the online application.	-Performance: The system must run seamlessly and have a design team ready to fix any underlying problems. A weekly set maintenance time must also be provided to the system so that it does not unexpectedly crash (ex: Tuesday's between 03:00 and 05:00 GMT +1 (BST))
-Ability to allow users to browse upcoming performances, as well as read reviews by other real users about previous performances.	-Reliability: The system must do exactly what it says it does; no more, no less. Checks must be implemented to make sure that the system does not encounter even the simplest of errors such as: adding more tickets to the cart than the user selected regardless of the change in price; this can lead to easily preventable customer conflicts.
-Ability to effectively advertise the different performances that are available to the customer.	-Robustness: The system must be able to run on different platforms and applications. It must also be adapted to run on mobile devices to appeal to the demographic of younger, more fast-paced lifestyle individuals. It must run without any additional interfaces (Flash Player is an exception due to its easy implementation into a numerous amount of interactive systems), allowing it to be robust enough to run on most modern computerized electronics.
-	-Security: The new system must be safe for all users. The introduction of credit card verification is a risky alley way as users are giving away personal information such as card info, address info and bank details. The use of VISACheck would convey to the user that the new system is trustworthy and adds an extra level of security that may not be able to be promised while using other means of payment.

UML Documentation

Use Case Diagram:



Class Diagram:



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