

# Call Management Center - Proposed Report

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## Acknowledgements

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We want to thank the travel company, for allowing us to create and present this report detailing a new proposed call management system.

## Executive Summary

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This report examines the problems surrounding the operations of a call management centre and recommends methods of increasing its efficiency and effectiveness.

The research showcases that the current system operation is complicated due to the number and nature of the holiday packages. Furthermore, wait times for customers are too long, tarnishing the relationship between the customer and relationship manager before the call begins. After the customer connects with a Relationship Manager, they don't have enough information about the customer, making the process and call rate slow and inefficient. These factors are significant causes of why the current system operation has problems.

The travel company aims to circumvent these issues by developing a new information system that improves the overall operations of the call management system. This report concludes that it would satisfy its existing customers while also attracting new potential customers due to the efficient new information system.

View video presentation at: [https://youtu.be/6cZo2\\_AM1fw](https://youtu.be/6cZo2_AM1fw)

# **Project Objectives**

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The goal of this project is to improve the in-house call management centre of a major travel company.

## **Problem Definition**

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We want our relationship managers to efficiently and effectively help customers purchase a travel package through our in-house call management centre.

However, the current system makes it difficult for relationship managers to sell due to long wait times, and Relationship Managers not understanding customers' intentions fast enough. If we ignore this problem, we could potentially lose customers to competing companies, lose revenue and damage our overall company reputation.

To fix this issue, we will adopt a design thinking and scrum methodology to understand our customers truly and iteratively improve our operational system.

## **Stakeholders**

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### 1. Inbound calling customers

Customers calling the travel company whom are looking to purchase a travel package.

### 2. Outbound called customers

The travel company calling potential customers who may be interested in purchasing.

### 3. Relationship Manager

The employee who is interacting with the customer.

### 4. Travel Company

The company that operates the call management centre.

### 5. Call management centre

Part of the business that controls the calls with customers.

### 6. Competing travel companies

Businesses that are similar to the travel company that may attract their own customers.

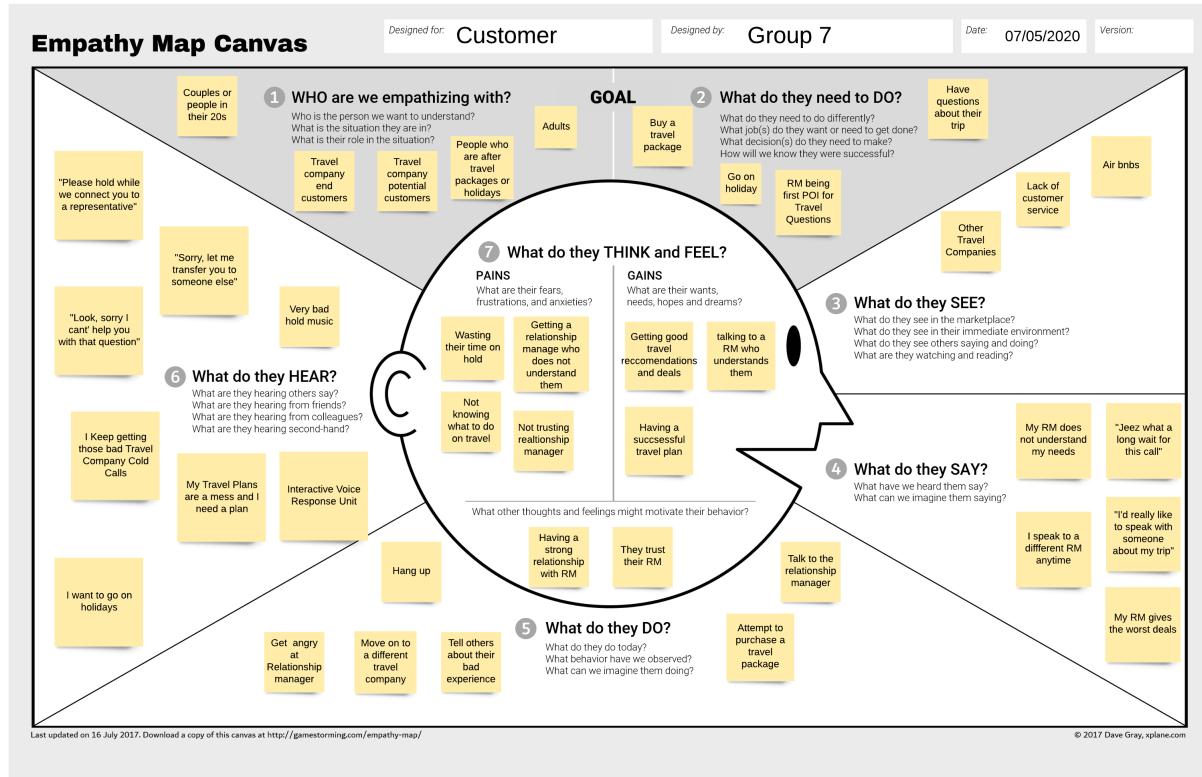
### 7. Call centre manager

Supervisor who is in charge of running and operating the call management centre.

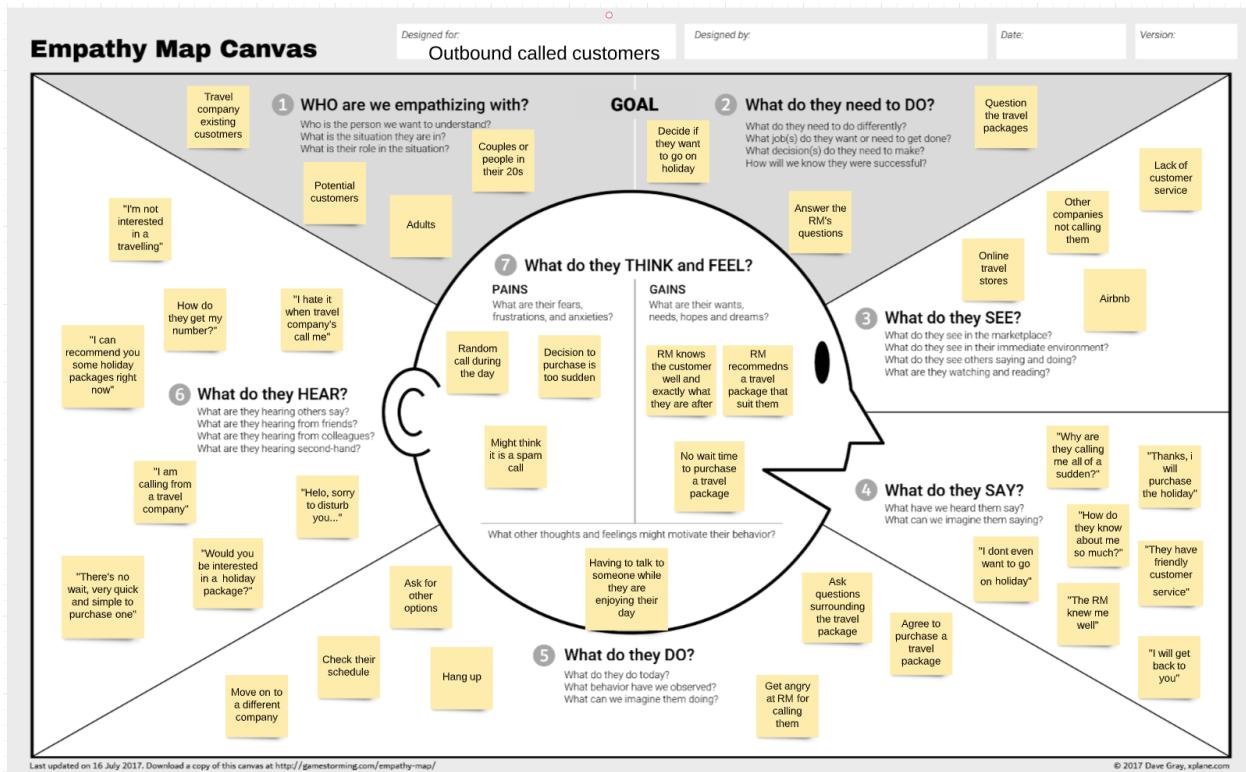
# Design Thinking Principles Perspective

## Empathy Maps

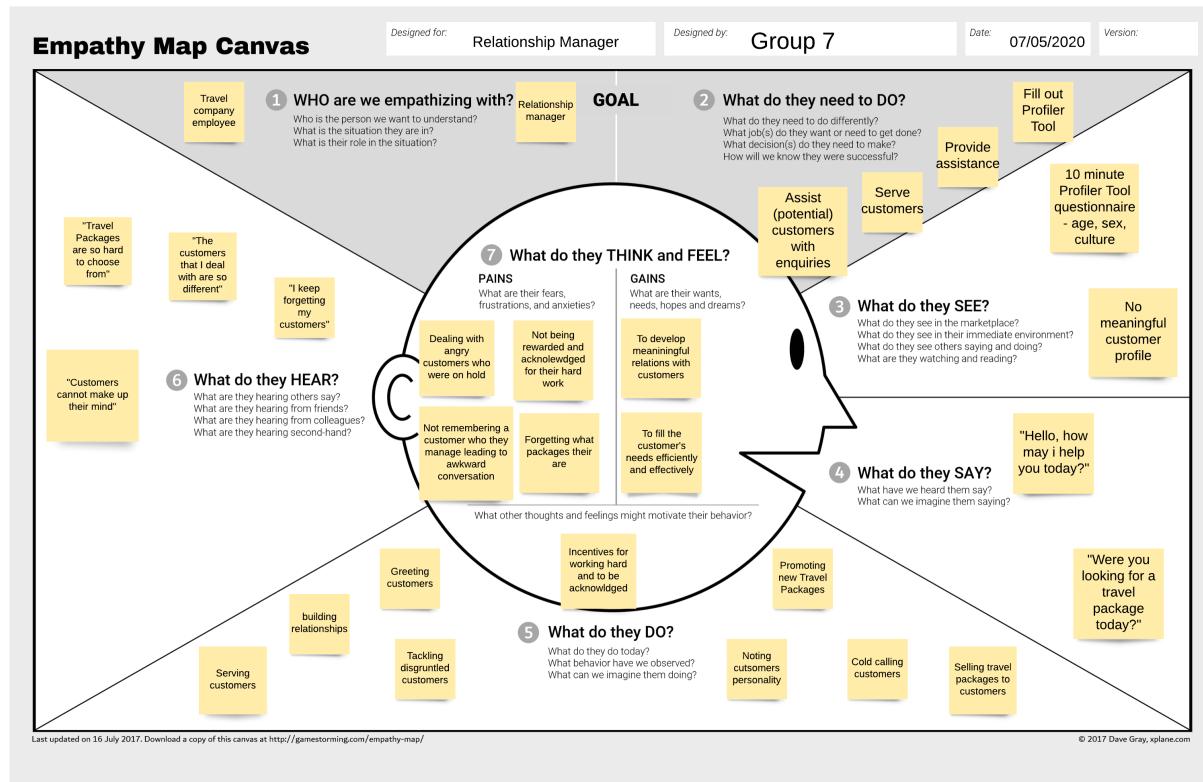
- Inbound calling customer



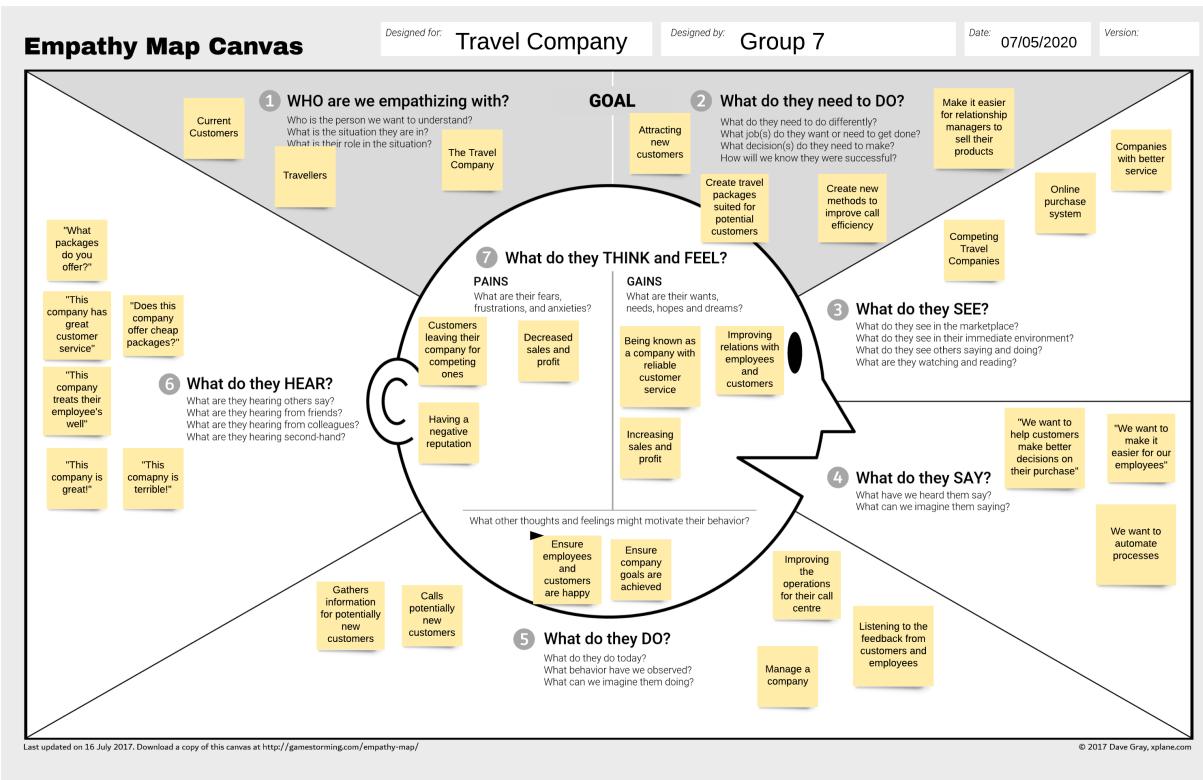
- Outbound called customers



- Relationship Manager



- Travel Company



## **POV Statements**

1. "I am an inbound calling customer trying to purchase a travel package, but I'm frustrated with the service I am receiving from the Travel Company as the wait times are long and they don't understand my intentions well. This makes me feel irritated and impatient."
2. "I am an outbound called customer trying to enjoy my day, but it is annoying to receive calls from a company asking to purchase their products as I need to do research, sort my schedule and need more time before I can make a purchasing decision. This makes me feel displeased and frustrated."
3. "I am a Relation Manager trying to better serve my customers. Whenever I get connected, their initial attitude is always negative due to long wait times. I sometimes forget what the optimal travel package for them is, since I have to deal with so many different customers. This makes me frustrated."
4. "We are a Travel Company trying to improve the in-house call management centre, but it is too difficult for our employees to help customers purchase a travel package due to long wait times and misunderstanding the customer's intentions. This makes me feel anxious and aggravated."

## **Reflection**

We started the project by assigning different roles to each group members to ensure that we are able to complete the project within the allotted time frame. We broke down the roles based on every members strengths and weaknesses.

Despite the current situation surrounding the virus, we were able to progress with the project. We had a group discussion on the issues we would encounter and how we would overcome them for the project. This includes reduced face-to-face communication, unable to interview real actors, and gaining real-world data. We overcame this by utilising the internet and making assumptions on the case study to understand the major stakeholders of the project and their situation.

Our Design Thinking methodology started with a brainstorm of different stakeholders relating to the case study. We decided to use the customer, relationship manager and travel company for our empathy maps as they were the major stakeholders surrounding the case study. After further discussions with our tutor, we decided to split the customer into two, inbound called customer and outbound calling customers for our empathy maps, as they posed more in-depth discussion and analysis.

With the POV statements, it was found that every stakeholder involved is affected by the current operation of the Call Management Centre. Assumptions were developed that it was more difficult for employees to do their job and drove customers to competing companies primarily due to the long wait times and misunderstanding between RM and customer.

These POV statements allowed us to develop and shape the scope of "How Might We" questions relating to the project. This is relayed below:

1. How might we improve the relationship between the customer and RM?
2. How might we improve the customer's experience while they're calling?
3. How might we speed up the call rate for RMs?
4. How might we increase the RM's performance and product knowledge?
5. How might we recommend better purchase options for our customers?

## **Assumptions**

### **Current System**

- RMs are frustrated with the long wait times like the customers
- RMs don't understand their customers well, as the calls are being sent to RMs randomly
- The travel company doesn't have an online website for customers to find holiday and travel packages
- RMs are not able to see their own profiles and progress

### **Proposed System**

- Customers create their customer profile by utilising the Profiler Tool on the Travel Company's website prior to an Inbound Call
- Inbound Customers who call without making a profile will be asked for details by the Relationship Manager in order to create a profile
- The new system won't slow down the call operations, as customers with customer profiles will be prioritised over customers without one

- The company is losing revenue and market share due to competitors, which is why they want to develop a new information system
- Outbound called customers have not purchased packages with the Travel Company, but have details in the system through Events/Profiles
- A booking can be associated to only one holiday package
- A package is associated to only one Travel Company and only one Accommodation Company
- Bookings are saved on the Customer Class but are made by the Relationship Manager on a call with the customer
- Outbound Calls are automatically dialled for Relationship Managers by the System
- Scripts and Target Lists are generated by the System for Relationship Managers who conduct outbound calls

# **Agile Methodology**

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An appropriate system development methodology will be utilised to plan, structure and control the development of the Call Management Centre.

In agile methodology, various parts of the system are worked on concurrently, as opposed to the sequential order of activities in traditional waterfall methodology. Projects are developed in iterations and stages, with constant testing, review and feedback with stakeholders, providing continuous improvement with each iteration and a focus on communication, collaboration and adaptation. This enables any changes, including requirements, to be implemented at any stage of development.

## **SCRUM**

Agile Methodology is a project management process that is primarily used by software developers involving self-organisation and collaboration across teams. It involves working on multiple tasks at once in smaller builds through iterations, testing and reviewing with stakeholders regularly throughout the project.

The Scrum events we used were the sprint retrospective and the scrum cycle. This is because they suited our timelines better, as we didn't have time to meet daily due to other commitments. The Sprint Retrospective allowed us to look back at our backlog and timeline of commits to identify current issues and determine methods in further improving the project. The Scrum Cycle allowed us to incrementally work on the project and help us prioritise the most important methods needed to complete the project.

As such, we employed a variety of scrum artefacts including the product backlog and a sprint backlog. The product backlog showcases a prioritised list of user stories and tasks for the project (see below). The Sprint backlog can be seen through our Kanban board in GitHub which showcases our progression and timeline of our tasks and the various issues we encountered throughout the project.

We would hold a weekly Scrum meeting every Friday to determine the outcome of our tasks and allow us to incrementally complete the project within the given deadline. We assigned different roles to each group member to help us iteratively work on the project without task dependency. For example, each team member was given a diagram to create and model based on the completed user stories, showcasing the improvements in the proposed system compared to the current system.

## Product Backlog

ID	User Story	Priority (High, Medium, Low)
US1	As an inbound calling customer, I want to dial a number without waiting too long, so that I can purchase a travel package	Medium
US2	As an inbound calling customer, I want to be able to talk to someone on the phone that knows my intentions well, so that I can buy holiday packages	High
US3	As an inbound calling customer, I want to purchase a travel package so that I can visit holiday destinations	Low
US4	As an inbound calling customer, I want to use a tool to create a customer profile, so that I can be allocated to a RM who is best suited to me	Medium
US5	As an outbound called customer, I want to talk to a RM that get straight to the point, so that it doesn't waste my time	Medium
US6	As an outbound called customer, I want to purchase a travel package that suits my needs, so that I can save time	Low
US7	As a relationship manager, I want customers to get their calls answered so that I can sell them holiday packages	High
US8	As a relationship manager, I want to view the details of a customer, so that I can understand who I am talking with	Medium
US9	As a relationship manager, I want to be given a script, so that I can provide an improved service to the customer	Medium
US10	As a travel company, I want to develop a system so that I can improve the call management centre	High
US11	As a travel company, I want to improve the call flow rate, so that I can make more sales	High
US12	As a travel company, I want to be able to create profiles based on my relationship managers and customers so that I can match my relationship managers with customers to increase sales	Medium
US13	As a travel company, I want to be able score a call from 1-10 so that we can find which customers are most likely to buy from us	Medium
US14	As a travel company, I want to ensure customers with a high score are prioritised, so that they can buy holiday packages from us	Medium
US15	As a travel company, I want customers to be directed to an interactive voice response unit so that it can answer any questions if a relationship manager is not available	Low
US16	As a call management centre, I want the system to use AI machine learning, so that it can automatically assign customers to a suitable relationship manager	Low
US17	As a call management centre, I want to ensure the system is running smoothly, so that customers and relationship managers are not impacted in their calls	Medium
US18	As a competing travel company, I want to take away as many customers from my main rivals, so that I can make more sales and revenue	Low
US19	As a call centre manager, I want the call rates to be improved for RM's, so that they are able to interact with the customers more often	Low

ID	Task	Priority (High, Medium, Low)
T1	Create Empathy Maps and POV statements	Medium
T2	Create Backlog	High
T3	Create model diagrams	Medium
T3.1	Subtask - Create use case diagrams	Medium
T3.2	Subtask - Create activity diagrams	Medium
T3.3	Subtask - Create class diagrams	Medium
T3.4	Subtask - Create collaboration diagrams	Medium
T4	Competitive advantages and potential effects	Medium
T5	Edit and finalise documentation	Low
T6	Start the video presentation	Medium
T7	Assign roles and begin recording	Low
T8	Upload the final video presentation	High
T9	Upload final document	High

# Work-products and Models

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## User Stories

These are the user stories that we will focus on modelling:

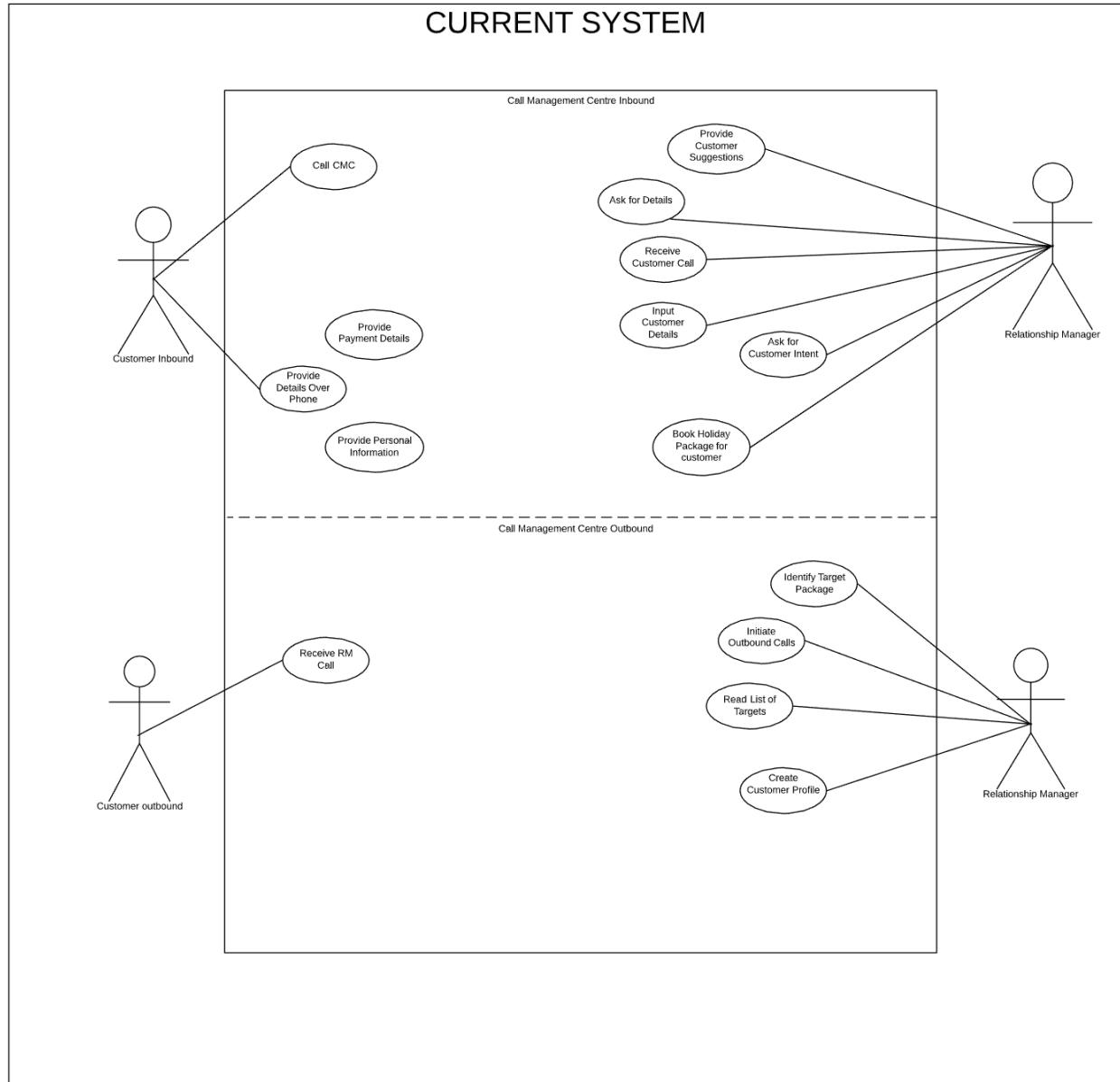
1. As an inbound calling customer, I want to be able to talk to someone on the phone that knows my intentions well, so that I can buy holiday packages
2. As an outbound called customer, I want to talk to an RM that get straight to the point, so that it doesn't waste my time
3. As a relationship manager, I want to view the details of a customer, so that I can understand who I am talking with
4. As a travel company, I want to develop a system so that I can improve the call management centre

## Use Case Model

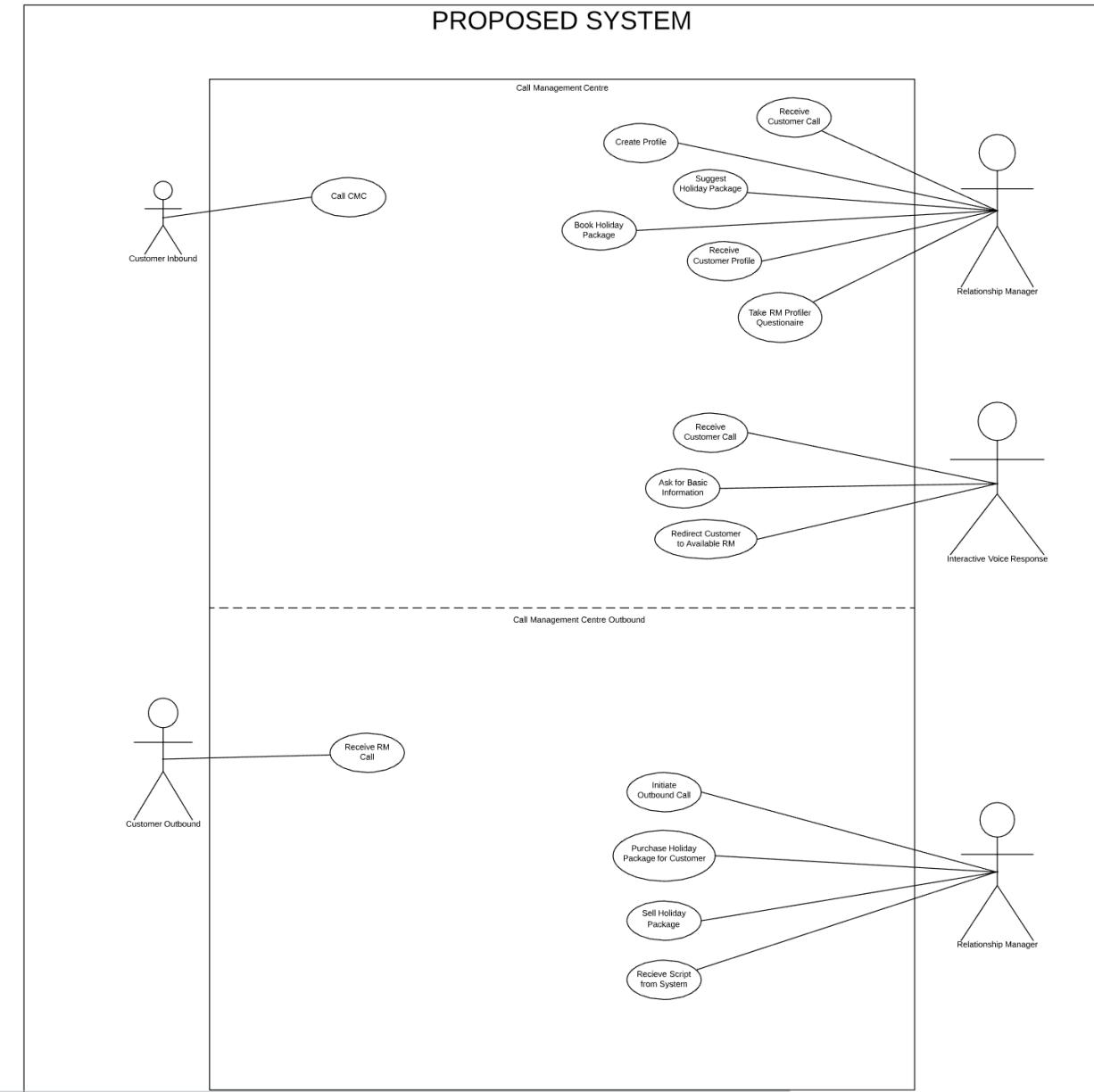
The use case model was created by utilising the user stories. This use case model showcases a simple representation of the user's interaction and relationship with the system. As emphasised through the model, it visually showcases how effective the proposed system is compared to the current system as there are less prompts for the actor to interact with. Everything is done in the background, which increases their mood.

Despite our initial confusion on creating use case models due to the many possibilities, we decided to create two use case models showcasing the current call management system and another one for the proposed system that is going to be developed. We started by listing the title, actors and their associated use cases. This was the prototype model that we created. We would continue to iterate on this base diagram later by adding relationships.

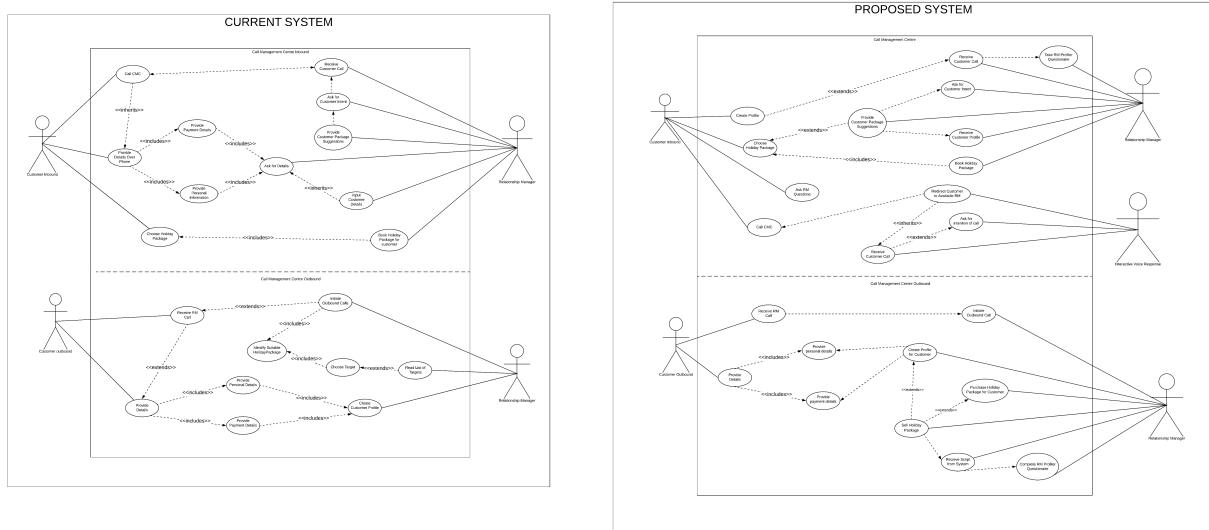
- Current System (Beginning)



- Proposed System (Beginning)

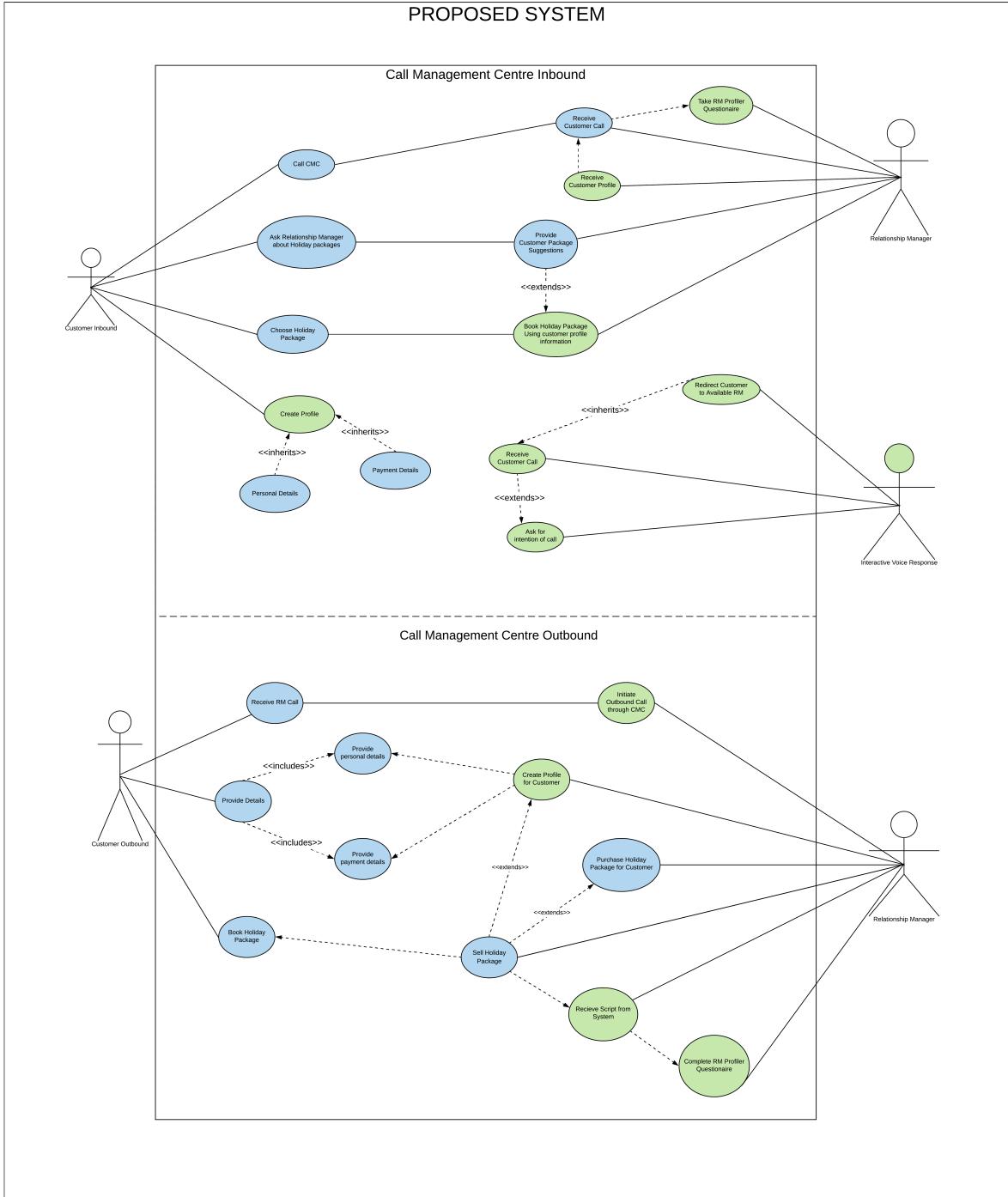


- Version 2 Inbound & Outbound (Pre-Consultation)



After some discussions with the tutor, we decided to use his feedback and create one use case diagram containing both the current and proposed system. It was mentioned that use cases could be distinguished by colour coding the proposed system. This will give a better comparison and view on how the proposed system will help the call management system in a single glance & will clearly showcase the improvements that the proposed system will make. This means we needed to reconfigure the entire use case model by combining the 2 models and adding relationships that showcase the differences made from the proposed system.

- Use Case Diagram Final



The end result was a singular more concise diagram which was coloured based on new and retaining use cases. New use cases were expressed in green whilst retaining use cases were displayed in blue. It was decided that unused use cases should not be shown in the diagram in order to minimise confusion.

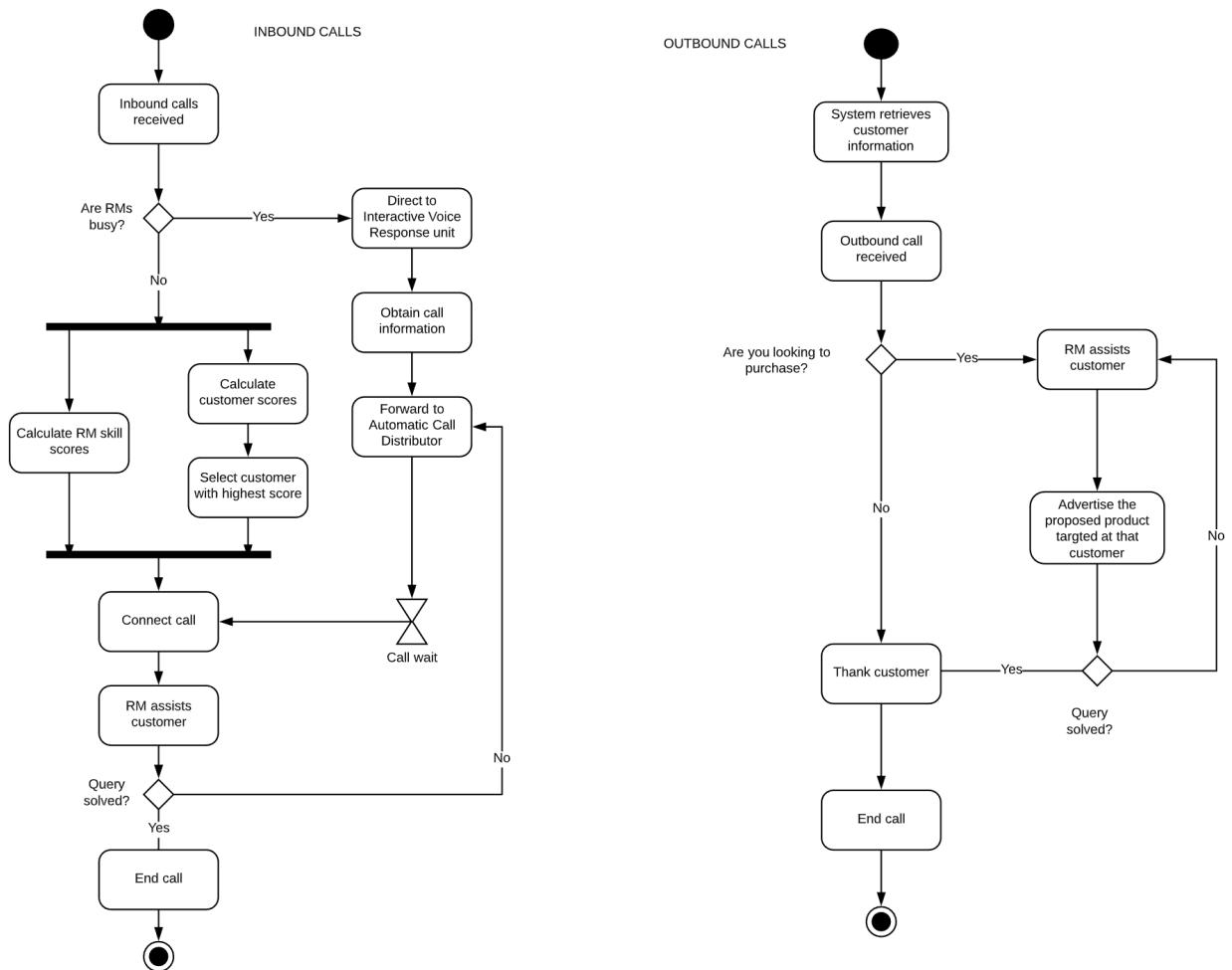
Some insights that could be deduced from visualising the Use Case Diagram in this way was which stakeholders were impacted by the proposed changes. From the colour distribution we can conclude that Relationship Managers have more changes implemented

while the customer journey is relatively untouched.

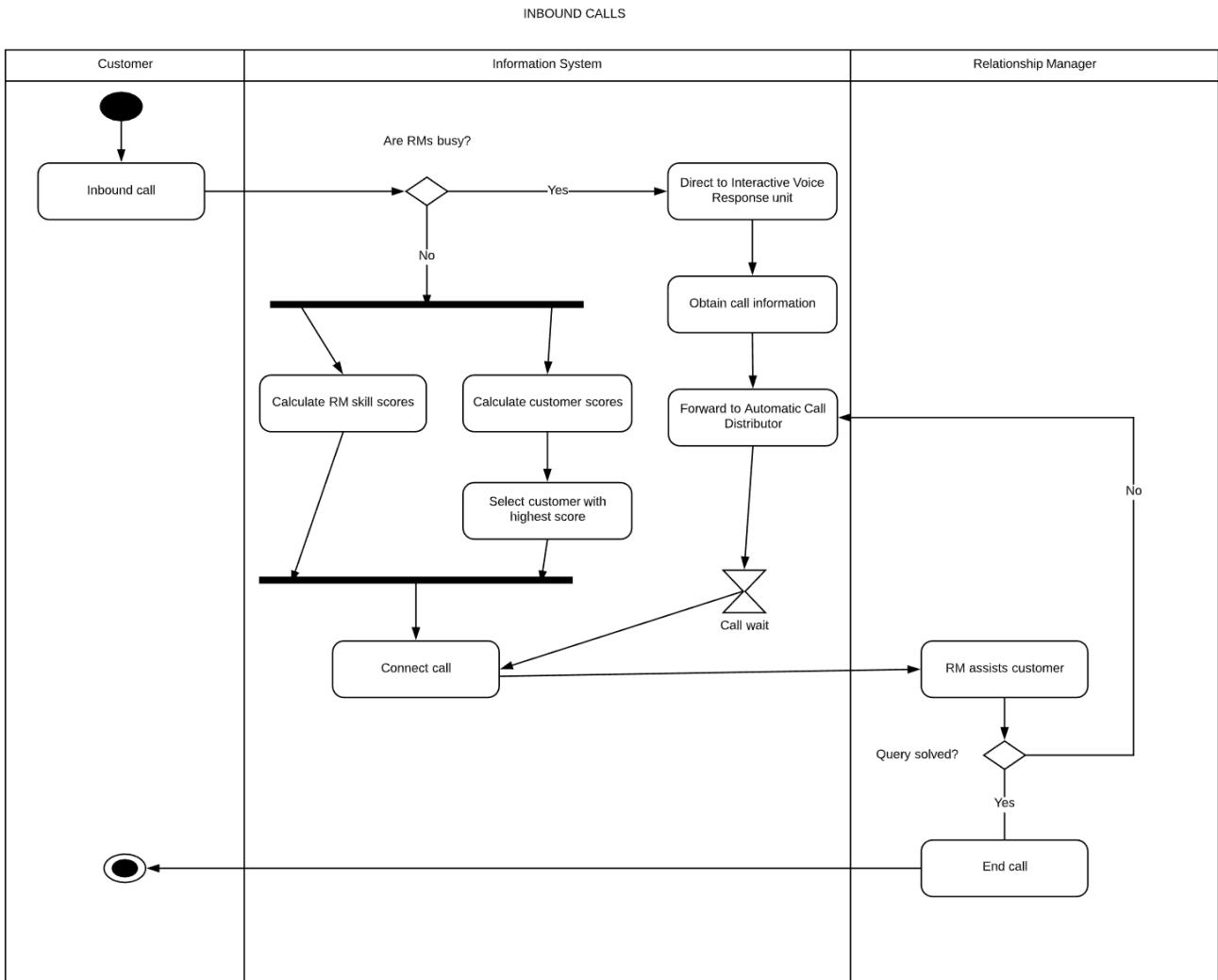
### Activity Diagram

An activity diagram is a visual representation of the workflow of steps and actions that occurs when the customer interacts with the system. It starts at the top and flows downwards, showcasing different steps and actions that are required by the customer or relationship manager. As showcased through the diagram, most of the steps are in the background, and doesn't involve the consumer. This makes things more efficient as the relationship manager already has all the information available to them, and maximises their chance of selling the product to the customer.

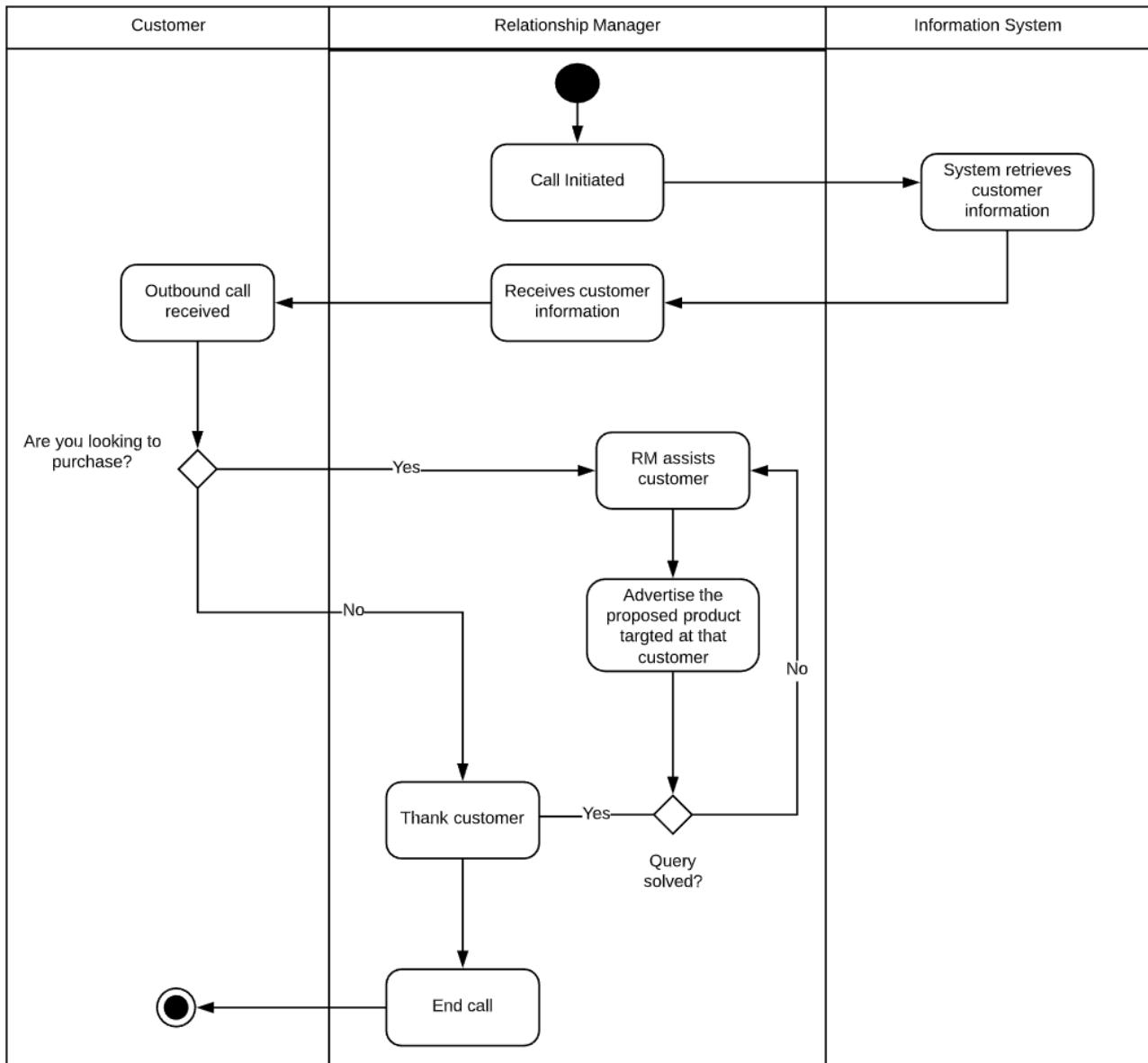
We experienced some trouble with the Activity diagram as we weren't sure how specific or brief we needed to be and whether to model the current system or the proposed system. However we opted to make the activity diagrams succinct and easy to read without compromising the amount of information. We created two separate activity diagrams that detail the series of events that inbound calling customers and outbound called customers will go through on the proposed system.



However after creating the diagrams, we planned a group discussion later in the week where further edits will be made to the activity diagram to help finalise it. With the edited activity diagrams, we added columns for the stakeholders, which better visualises the diagrams and showcases the differences between the two stakeholders.

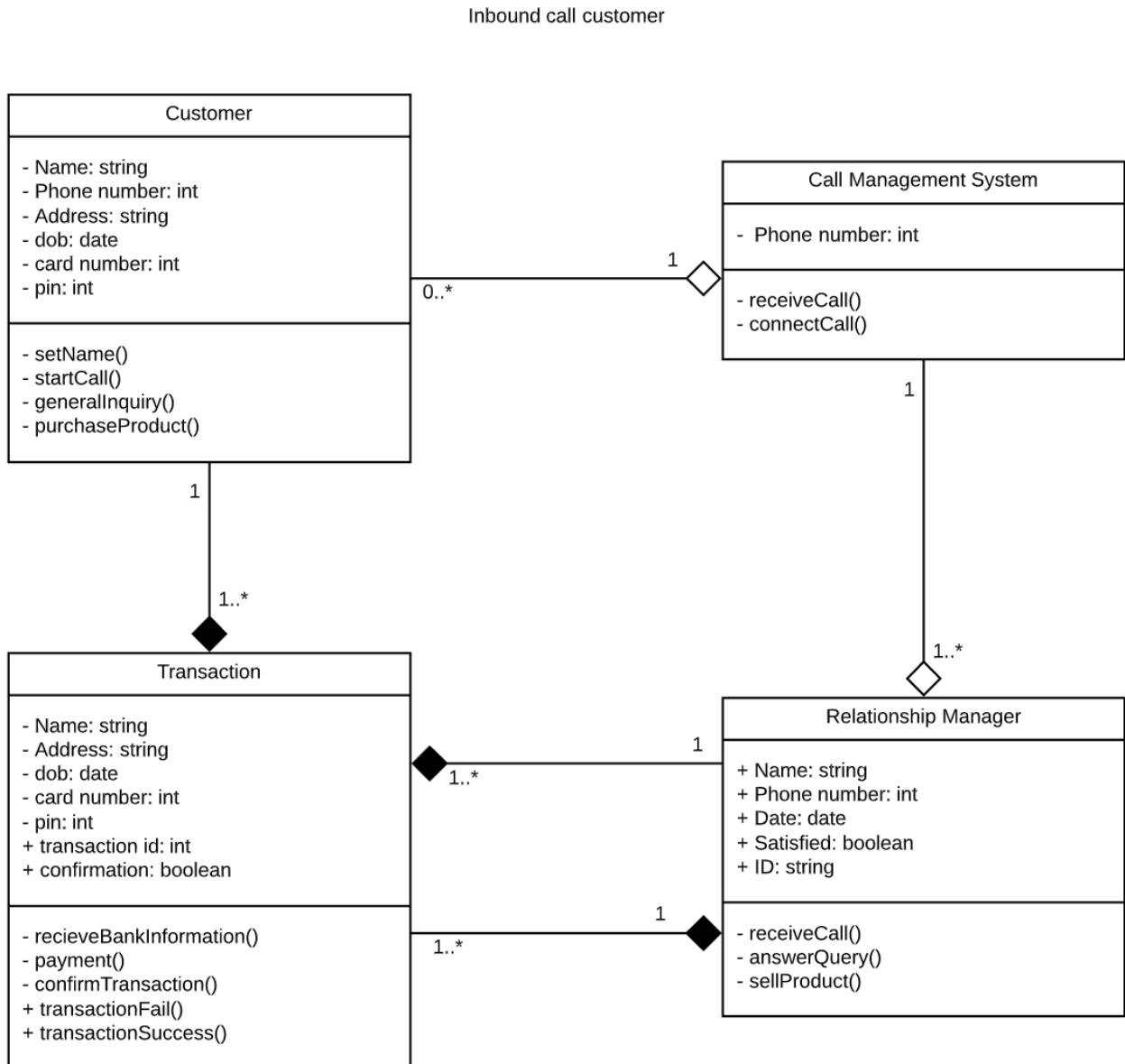


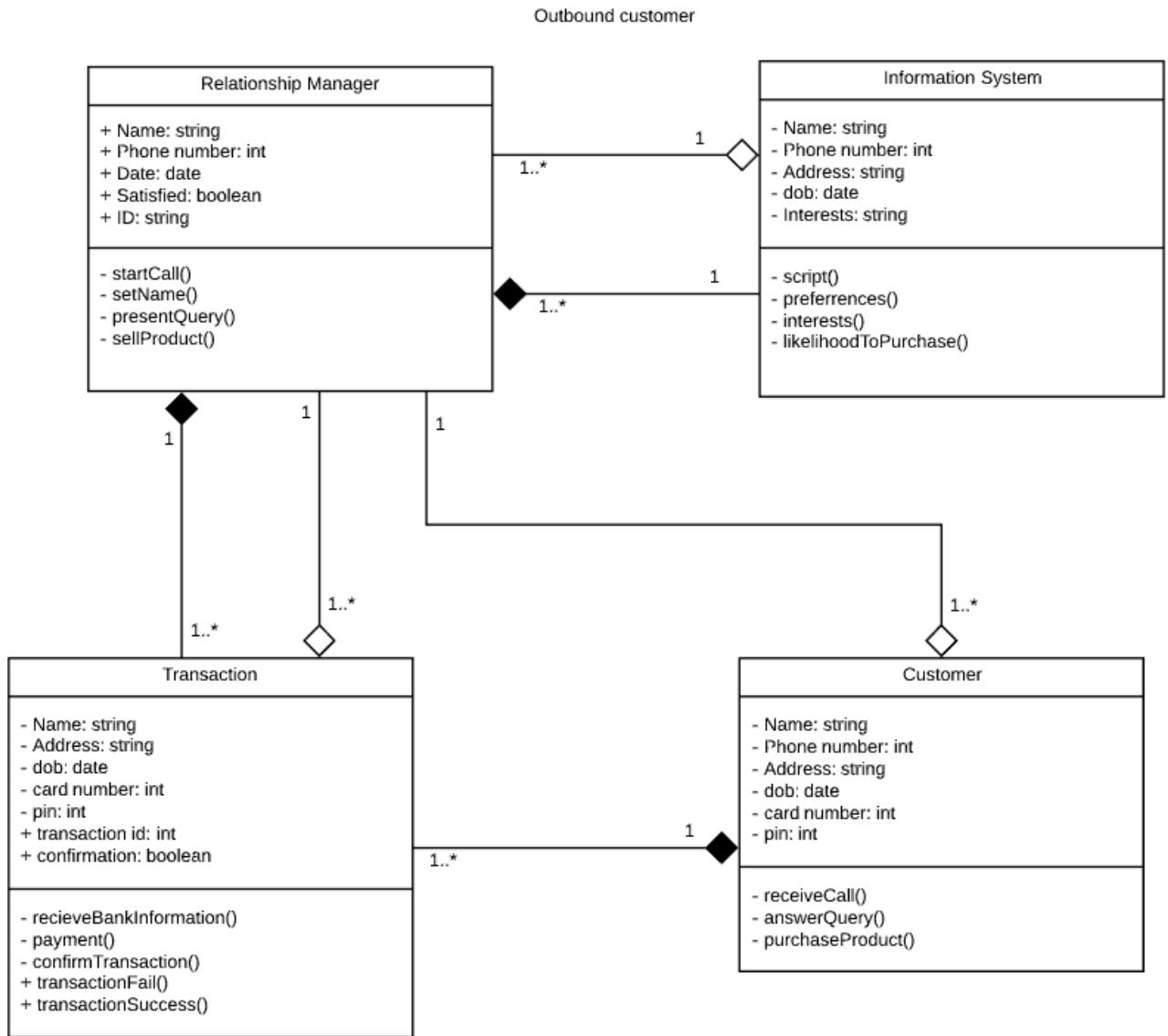
**OUTBOUND CALLS**



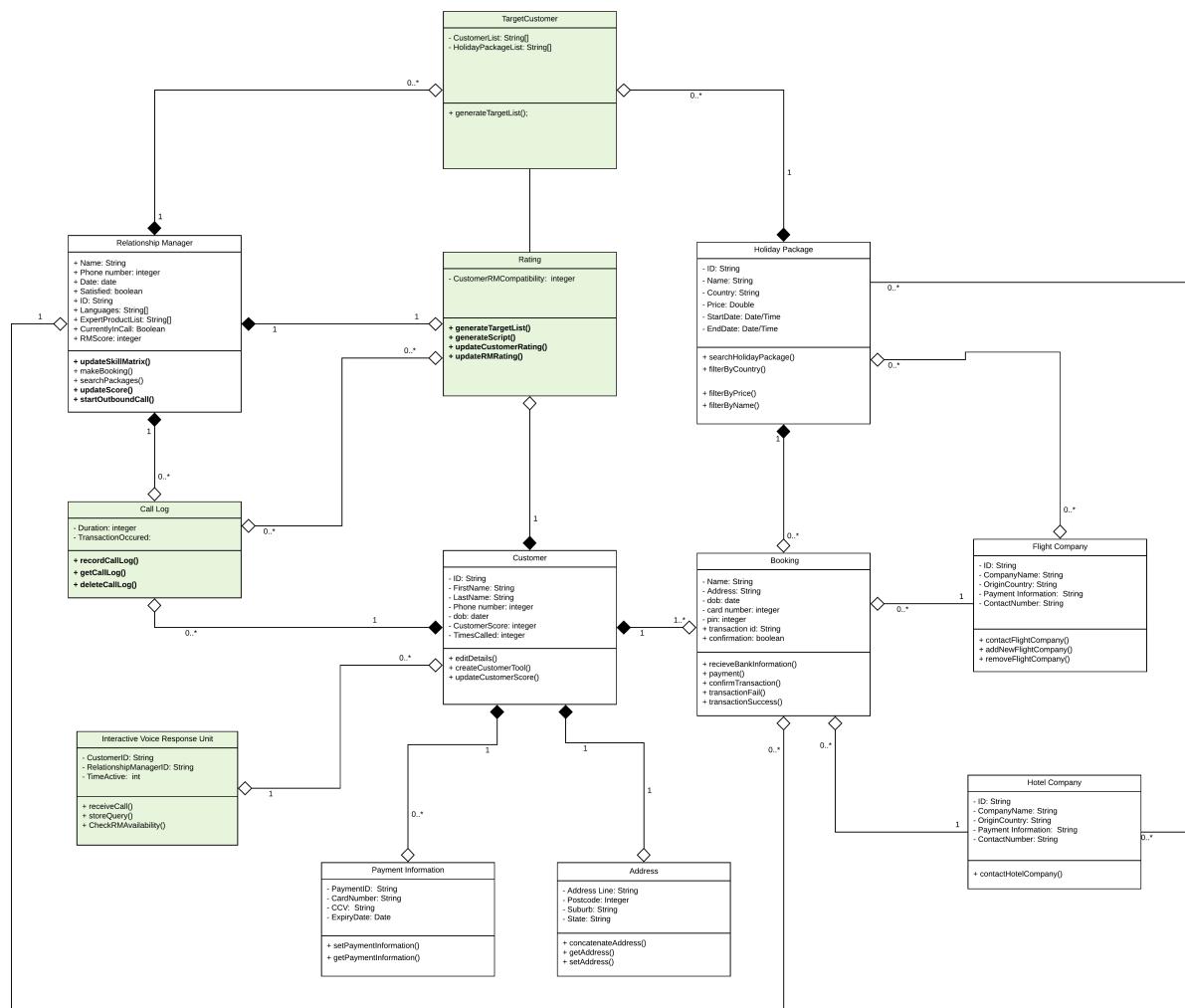
## Class Diagram

A class diagram showcases the system's classes, attributes, operations and relationships among objects. The listed class diagrams showcases the base system we wish to design. However, we experienced trouble as we were unsure whether we needed to be more specific with more classes and relationships. We decided to create a simple outline of the proposed system for the two major stakeholders being the inbound customer and outbound customer. It showcases the relationship that the customer and relationship manager will go through when interacting with the system.



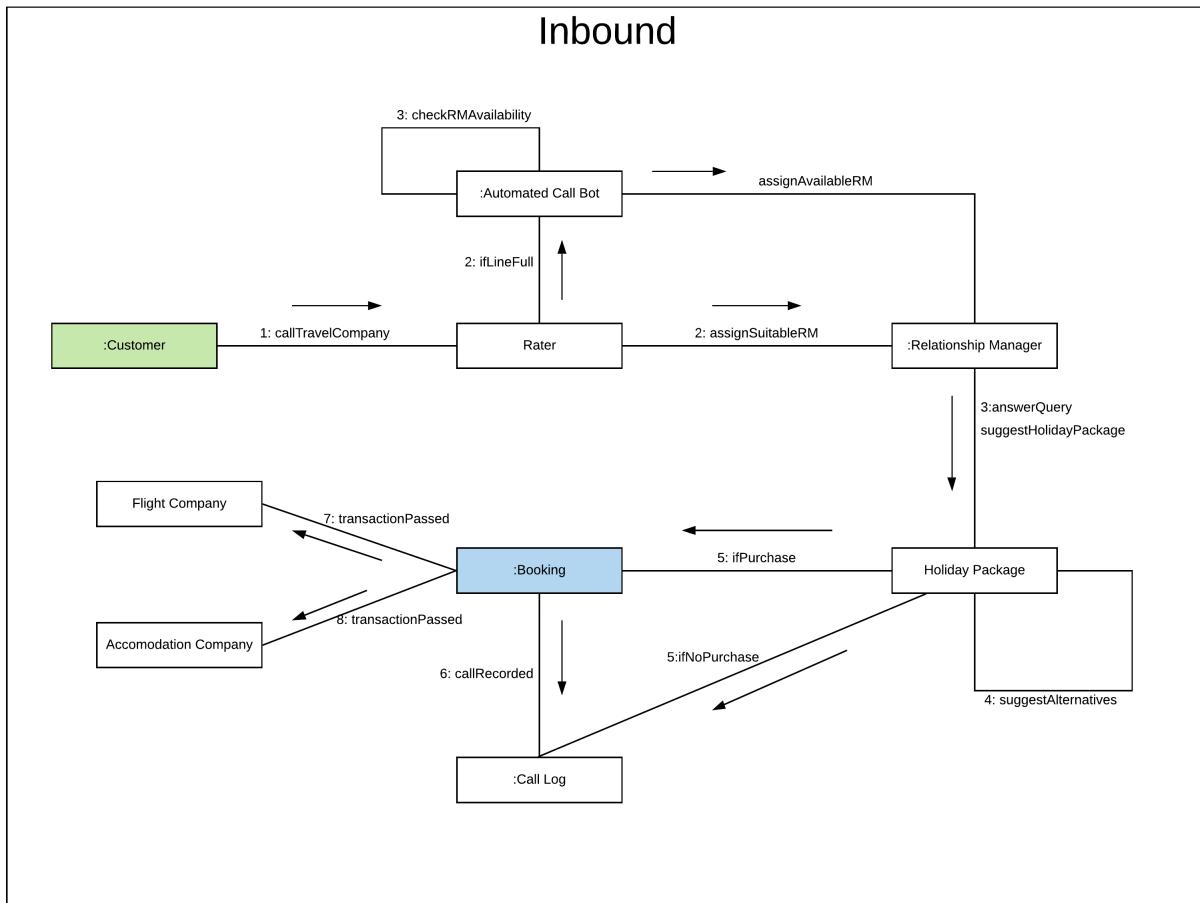


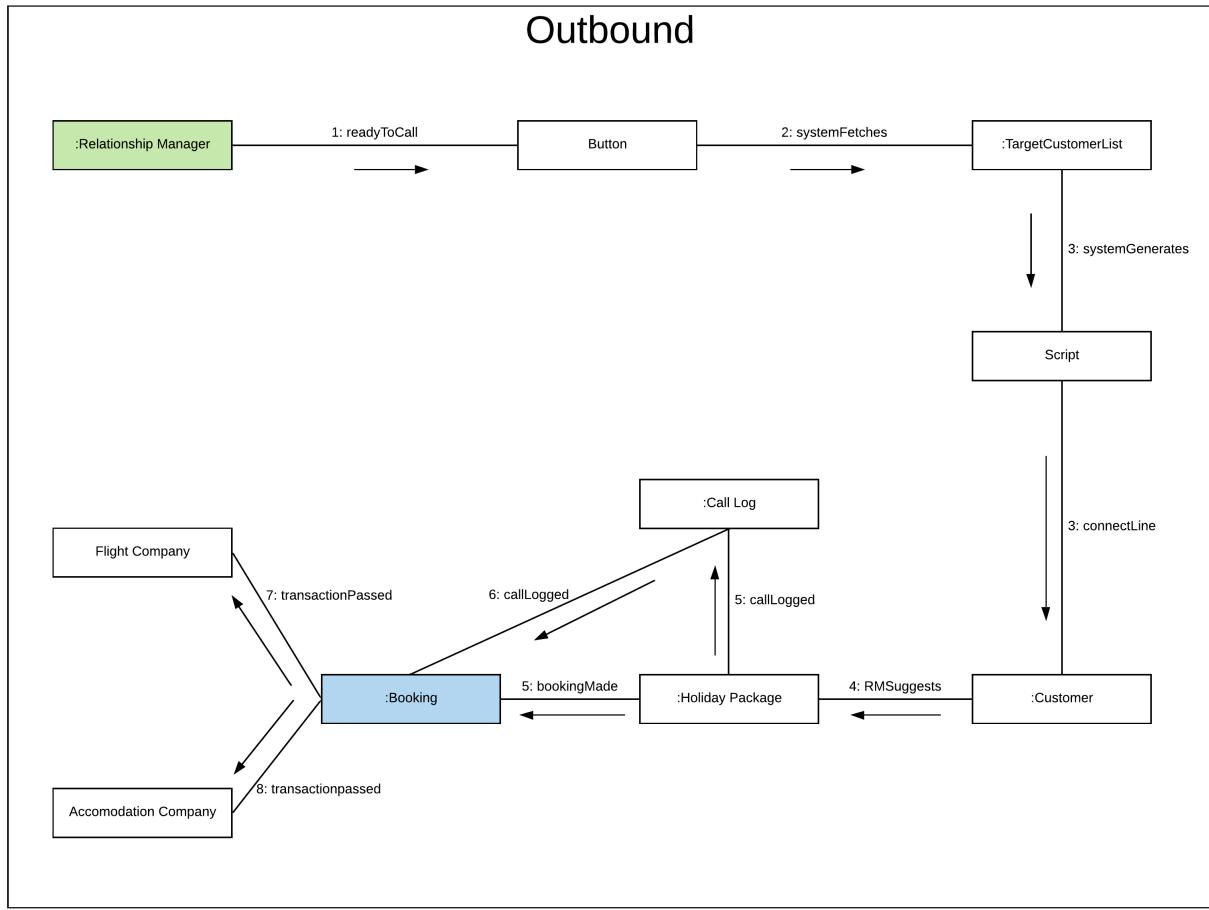
- Class Diagram (Final)



As represented in the diagram, the proposed system has very little wait time and allows the customer to get what they want efficiently and effectively. It has been colour coded to represent new Classes that have been proposed to automate processes for customers and Relationship Managers.

## Collaboration Diagram





A collaboration diagram is used to showcase the relationships and interactions between objects in Unified Modelling Language (UML). It defines the role of each object.

# Project Advantages & Failures Discussion

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## Competitive Advantage

Competitive advantage refers to unique features and offerings of a company that differentiate them from their competitors, and is perceived by the target market as significant and superior to their rivals.

The new system will provide efficiency improvements in handling all calls. Dynamic and intelligent matching of customers to an appropriate Relationship Manager (RM) based on their respective profiles ensures the RM has the right skills to resolve customer enquiries within a timely manner. Successful matching will also prevent the need for the customer to be transferred around to various RMs, saving organisational resources.

Furthermore, customer profile information allows RMs to provide more personalised support through significant insights and a more in-depth understanding of each customer's requirements.

These two competitive advantages combined result in increased customer satisfaction and employee wellbeing. Providing customer satisfaction achieves competitive advantage over competitors through obtaining customer loyalty, and the attraction of new customers through word of mouth.

Finally, the new system can provide insights from collated profiles, interactions and data to form trends and patterns that will better enable the travel company to address customer needs, and align their business to cater for their requirements. For example, trends may reveal that many customers are enquiring about a particular travel destination that the company doesn't offer. Hence, the company has the potential to gain competitive advantage by looking into providing highly demanded destinations.

## Possible Effects of Project Failure

A project is considered a failure when it does not deliver what was required or to expectations, and can be caused by insufficient management, poorly defined objectives, and various other factors.

The first implication is financial losses, including direct expenses in developing the project, and loss in potential benefits the project would've enabled, such as increased cash flows or higher turnover.

Project failure also leaves a negative image on the reputation of the travel company or the contractor. This has a direct negative impact on future business prospects, opportunities and market share from the loss of credibility and reputation from stakeholders, investors and business partners.

Finally, project failure will leave the initial project requirements incomplete, or even unfulfilled. Projects are pursued with relation to business goals and objectives, and any failure will lead to adverse effects on the travel company, including financial consequences and delays in future business prospects. The initial problems such as long call wait times, low customer satisfaction and process inefficiencies would continue to exist, leading to organisational failure and allowing competitors to gain an advantage.