

DEL 2: FUNCTIONAL SPECIFICATION

This functional specification document covers in depth how our system will meet the business requirements for our client

The overview of this document covers a full set of use case diagrams and narratives which breakdown how each subsystem will operate, process models to illustrate the different process within the system, along with a full set of Activity Diagrams. Complete Logical Data Model, Input and output descriptions, Validation of the functional specifications against the requirements and a review of the complexity marks then concluding with a sign-off by the client and the team.



CLIENT INFORMATION

NdilaTransfers;
A company based in Gauteng and Western Cape with the aim of supplying affordable, professional, safe and reliable shuttle services to the South African tourism industry and also to the corporate industry. Our services are reliant on the following values Respect, Reliability, Integrity, Flexibility and Professionalism. We have the capacity to transport our esteemed clients safely to any respective destination from either Gauteng or Western Cape.



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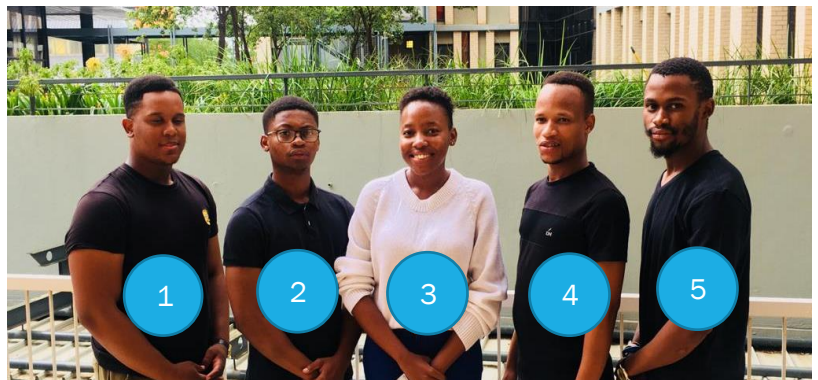
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1. DELIVERABLE 2 INTRODUCTION

INTRODUCTION

The previous deliverable saw the team, K'Runa, present our project proposal. Briefly we will run through what the document contained, as it is the fundamental foundation for Deliverable 2, which is the Functional Specification.

1.1 SYNOPSIS OF THE PREVIOUS DELIVERABLE: DELIVERABLE 1

This is the content that went into the first deliverable

- Client information
- Project Request
- Preliminary Investigation
- Problem Analysis
- Requirement Analysis
- Decision Analysis
- Appendices on client documents, other systems investigated and complexity requirements.
- Sign-off by Client
- Sign-off by Team

CONCLUSION

The following deliverable reveals the Functional Specification of the proposed system. This document will demonstrate what our system will be capable of doing but not focusing on how the system will perform it. This document is crucial as it serves the purpose of enlightening the stakeholders with an in-depth understanding of the proposed new system, how all the requirements will be met and how the data will be manipulated to assist them to make better business decisions. A description of how the different actors are expected to interact with the system and what will system respond to the actors. This is portrayed through the System Analysis Methods such as a complete set of Use Case Diagrams along with Use Case Narratives to outline the roles of each user and a detailed step by step description of the system requirements will be met. Process Models to breakdown the flow of information such as the data input and output interacting between use cases, actors and entities. UML Modelling to illustrate the activity of the use case, the various decisions and the logical flow to complete the relevant steps towards achieving the requirement. A complete, fully-attributed logical Data Model demonstrating how the data will be structured and which relevant attributes will be stored.

2. USE CASES

INTRODUCTION

This following part of the functional specification document comprises of two main sections. A complete set of UML Use Case Diagrams illustrating the actors and how they play their role in our system. Together with the second section, which is a list of Use Case Narratives detailing each activity and process within each use case. The Use Case Narratives explain each process within the Use Case -step by step detailing how the actors interact with the system and how the system responds also including alternative steps and relevant business rules.

USE CASE DIAGRAM

USE CASE NARRITIVES

Siyaya Travel Assist		
Author (s): Kwena Maboka		Date: 04-22-2019 Version: 2

USE CASE NAME:	Create Access Level	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	1.1	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Employee	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Owner	
DESCRIPTION:	This use case describes the events of an employee creating a new access level into the system database.	
PRE-CONDITION:	Access Level should not already exist in the system database Employee should have authority to create an access level.	
TRIGGER:	Employee	
TYPICAL COURSE OF EVENTS:	Step 1: Employee would like to create a new access level and selects the option to create access level	Step 2: System checks if user has authority to create an access level
		Step 3: Request Employee to provide details about the new access level such as: “AccessLevel_ID” “AccessLevel_Name”

		"AccessLevel_Description"
	Step 4: Employee enters details about the new access level	Step 5: System verifies details provided by the Employee
		Step 6: System creates new access level into system database
		Step 7: Systems notifies the employee that the new access level has successfully been added.
ALTERNATE COURSES:	[Alt Step 2]: System notifies the employee that they do not have the authority to create an access level. Use case terminates, [Alt Step 5] : System verification of the details provided by the employee fails and return to step 4	
CONCLUSION:	New access level has been created and stored into the system database	
POST-CONDITION:	None.	
BUSINESS RULES	<ul style="list-style-type: none"> An employee without the authority may not create an access level 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None. 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Access level does not exist already in the database 	
OPEN ISSUES:	None.	

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USE CASE NAME:	Update Access Level	<div>USE CASE TYPE</div> <div>Business Requirements: <input type="checkbox"/></div> <div>System Analysis: <input checked="" type="checkbox"/></div> <div>System Design: <input type="checkbox"/></div>
USE CASE ID:	1.2	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Employee	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Owner	
DESCRIPTION:	This use case describes the events of an employee updating an access level into the system database.	
PRE-CONDITION:	Access Level should not already exist in the system database Employee should have authority to create an access level.	

TRIGGER:	Employee	
TYPICAL COURSE OF EVENTS:	Step 1: The employee would like to update an existing access level and selects the option to update access level	Step 2: System checks if user has authority to update an access level
		Step 3: System Display all existing access levels And prompts the employee to select the access level they wish to update
	Step 4: Employee selects the access level they'd like to update	Step 5: The system then displays the attributes that the employee can edit AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description"
	Step 6: Employee updates the details they'd like update: AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description"	
	Step 7: Employee selects the save option to save the updated details into the system database	Step 8: System verifies the details updated by the employee
		Step 9: System then saves the updated access level details into the system database.
		Step 10: System notifies the employee that the update has been successfully.
ALTERNATE COURSES:	[Alt Step 2]: System notifies the employee that they do not have the authority to update an access level. Use case terminates,	
	[Alt Step 8] : System verification of the details provided by the employee fails and return to step 4	
CONCLUSION:	Access level has been updated and stored into the system database	
POST-CONDITION:	None.	
BUSINESS RULES	<ul style="list-style-type: none"> An employee without the authority may not update an access level 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None. 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Access level does exist already in the database 	
OPEN ISSUES:	None.	

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USE CASE NAME:	Search Access Level		USE CASE TYPE Business Requirement: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	1.3		
PRIORITY:	High		
SOURCE:			
PRIMARY BUSINESS ACTOR	Employee		
PRIMARY SYSTEM ACTOR	None		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 		
DESCRIPTION:	This use case describes the events where an employee is looking for a certain Access level. It involves the employee entering the access level name so that the system can return the access level that has been searched for by the employee.		
PRE-CONDITION:	Access level already exists in the system database		
TRIGGER:	Employee		
TYPICAL COURSE OF EVENTS:	Step 1: The employee selects the 'search access level' option	Step 2: System checks if the employee has authority to search access levels	
		Step 3: System requests the employee to enter the details of the access level to search for AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description"	
	Step 4: Employee enters the access level details for which they would like to search for: AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description"	Step 5: System validates the details entered by the employee	
		Step 6: System then checks system database for a access level that the employee is searching for	
		Step 7: System then displays the access level that has been searched for	
ALTERNATE COURSES:	[Alt Step 2]: System notifies the employee that they do not have the authority to search an access level. Use case terminates,		
	[Alt Step 5] : System verification of the details provided by the employee fails and return to step 3		
	[Alt Step 7]: System notifies the employee that the search could not find the access level they have searched for		

CONCLUSION:	Access level search has been found in the system database
POST-CONDITION:	None.
BUSINESS RULES	<ul style="list-style-type: none"> An employee without the authority may not search for an access level
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None.
ASSUMPTIONS:	<ul style="list-style-type: none"> Access level does exist already in the database
OPEN ISSUES:	None.

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USE CASE NAME:	Register New Employee	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	2.1	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Employee	
PRIMARY SYSTEM ACTOR	Manager	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Owner 	
DESCRIPTION:	This use case describes the events where a manager would like to register a new employee into the system database. This involves the entering the new employee details into the system and verifying the entered details.	
PRE-CONDITION:	Employee does not already exist in the current system database.	
TRIGGER:	Employee	
TYPICAL COURSE OF EVENTS:	Step 1: Manager selects the register new employee option	Step 2: System checks whether the manager has authority to register a new employee
		Step 3: System then request the manager to enter all employee details into the system: "EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID"

	Step 4: Manager enters all required employee details to register a new employee “EMPID” “EMP_Name” “EMP_Surname” “AuditID” “EMP_TypeID” “EMP_EmailAddress” “EMP_Contact” “EMP_Password” “EMP_IDNum” “TitleID” “GenderID”	
	Step 5: Manager selects the save option to save the entered details	Step 6: System then verifies all entered details by the manager
		Step 7: System then adds the entered employee details into the system database.
		Step 8: System notifies the manager that the new employee has successfully been added.
ALTERNATE COURSES:	[Alt Step 2]: [Alt Step 2]: System notifies the employee that they do not have the authority to register a new employee. Use case terminates.	
	[Alt Step 6]: System verification of the details provided by the manager fails and return to step 3	
CONCLUSION:	The manager has successfully register a new employee into the system	
POST-CONDITION:	None	
BUSINESS RULES	<ul style="list-style-type: none"> Only the owner and the managers are allowed to register new employees 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

USE CASE NAME:	Update Employee	<div>USE CASE TYPE</div> <div>Business Requirements: <input type="checkbox"/></div> <div>System Analysis: <input checked="" type="checkbox"/></div> <div>System Design: <input type="checkbox"/></div>
USE CASE ID:	2.2	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Employee	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<div><div></div><div>None</div></div>	

OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	This use case describes the events where a manager would like to update employee's details in the system database. This involves the manager selecting the employee they wish to update as well as entering the new details of this employee.	
PRE-CONDITION:	An employee should not already exist in the system database The owner and the managers should have authority to update an employee's details	
TRIGGER:	Employee	
TYPICAL COURSE OF EVENTS:	Step 1: The employee would like to update an existing employee and selects the option to update employee	Step 2: System checks if user has authority to update an employee
		Step 3: System Display all existing employees And prompts the employee to select the employee they wish to update
	Step 4: Employee selects the employee they'd like to update	Step 5: The system then displays the attributes that the employee can edit EMP_Name" "EMP_Surname" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID"
	Step 6: Employee updates the details they'd like update EMP_Name" "EMP_Surname" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID"	
	Step 7: Employee selects the save option to save the updated details into the system database	Step 8: System verifies the details updated by the employee EMP_Name" "EMP_Surname" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID"

		Step 9: System then saves the updated employee details into the system database.
		Step 10: System notifies the employee that the update has been successfully.
ALTERNATE COURSES:	[Alt Step 2]: System notifies the employee that they do not have the authority to update an employee's details. Use case terminates, [Alt Step 8] : System verification of the details provided by the employee fails and return to step 4	
CONCLUSION:	Employee has been updated and stored into the system database	
POST-CONDITION:	None.	
BUSINESS RULES	<ul style="list-style-type: none"> An employee without the authority may not update an employee's details 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None. 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Employee does exist already in the database 	
OPEN ISSUES:	None.	

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USE CASE NAME:	Search Employee	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	2.3	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Manager	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	This use case describes the events where the manager is looking for a specific employee. It involves the manager entering the employee details so that the system can return the employee that has been searched for by the manager.	
PRE-CONDITION:	Employee already exists in the system database	
TRIGGER:	Manager	
TYPICAL COURSE OF EVENTS:	Step 1: The manager selects the 'search employee' option	Step 2: System checks if the manager has authority to search employees

		Step 3: System requests the manager to enter the details of the employee to search for EMP_Name” “EMP_Surname” “EMP_TypeID
	Step 4: Manager enters the employee details for which they would like to search for EMP_Name” “EMP_Surname” “EMP_TypeID	Step 5: System validates the details entered by the manager
		Step 6: System then checks system database for the employee that the manager is searching for
		Step 7: System then displays the employee that has been searched for “EMP_Name” “EMP_Surname” “EMP_TypeID” “EMP_EmailAddress” “EMP_Contact” “EMP_Password” “EMP_IDNum” “TitleID” “GenderID”
ALTERNATE COURSES:	[Alt Step 2]: System notifies the manager that they do not have the authority to search an employee. Use case terminates,	
	[Alt Step 5] : System verification of the details provided by the manager fails and return to step 3	
	[Alt Step 7]: System notifies the manager that the search could not find the employee they have searched for	
CONCLUSION:	Employee search has been found in the system database	
POST-CONDITION:	None	
BUSINESS RULES	None.	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Employee does exist already in the database 	
OPEN ISSUES:	<ul style="list-style-type: none"> 	
	None.	

USE CASE NAME:	Create New Employee Type	USE CASE TYPE	
USE CASE ID:	3.1	Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>	
PRIORITY:	High		
SOURCE:			
PRIMARY BUSINESS ACTOR	Employee		
PRIMARY SYSTEM ACTOR	Manager		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Owner 		
DESCRIPTION:	This use case describes the events where a manager would like to register a new type into the system database. This involves the entering the new employee type details into the system and verifying the entered details.		
PRE-CONDITION:	Employee type does not already exist in the current system database.		
TRIGGER:	Employee		
TYPICAL COURSE OF EVENTS:	Step 1: Manager selects the create new employee type option	Step 2: System checks whether the manager has authority to create a new employee type	
		Step 3: System then request the manager to enter all employee type details into the system "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"	
	Step 4: Manager enters all required employee type details to register a new employee "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"		
	Step 5: Manager selects the save option to save the entered details	Step 6: System then verifies all entered details by the manager	
		Step 7: System then adds the entered employee type details into the system database.	
		Step 8: System notifies the manager that the new employee type has successfully been added.	

ALTERNATE COURSES:	<p>[Alt Step 2]: System notifies the employee that they do not have the authority to register a new employee type. Use case terminates.</p> <p>[Alt Step 6]: System verification of the details provided by the manager fails and return to step 3</p> <p>EMP_TypeID"</p> <p>"EMP_TypeName"</p> <p>"EMP_TypeDes"</p>
CONCLUSION:	The manager has successfully register a new employee type into the system
POST-CONDITION:	None
BUSINESS RULES	<ul style="list-style-type: none"> Only the owner and the managers are allowed to register new employee type
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> None
OPEN ISSUES:	None

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USE CASE NAME:	Update Employee Type	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	3.2	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Employee	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	This use case describes the events where a manager would like to update an employee type details in the system database. This involves the manger selecting the employee type they wish to update as well as entering the new details of this employee type	
PRE-CONDITION:	An employee type should not already exist in the system database The owner and the managers should have authority to update an employee type details	
TRIGGER:	Employee	
TYPICAL COURSE OF EVENTS:	Step 1: The employee would like to update an existing employee type and selects	Step 2: System checks if user has authority to update an employee type

	the option to update employee type	
		Step 3: System Display all existing employee types And prompts the employee to select the employee type they wish to update
	Step 4: Employee selects the employee type they'd like to update	Step 5: The system then displays the attributes that the employee can edit EMP_TypeName" "EMP_TypeDes"
	Step 6: Employee updates the details they'd like update "EMP_TypeName" "EMP_TypeDes"	
	Step 7: Employee selects the save option to save the updated details into the system database	Step 8: System verifies the details updated by the employee
		Step 9: System then saves the updated employee type details into the system database. EMP_TypeName" "EMP_TypeDes"
		Step 10: System notifies the employee that the update has been successfully.
ALTERNATE COURSES:	[Alt Step 2]: System notifies the employee that they do not have the authority to update an employee type details. Use case terminates,	
	[Alt Step 8] : System verification of the details provided by the employee fails and return to step 4 "EMP_TypeName" "EMP_TypeDes"	
CONCLUSION:	Employee type has been updated and stored into the system database	
POST-CONDITION:	None.	
BUSINESS RULES	<ul style="list-style-type: none"> An employee without the authority may not update an employee type details 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None. 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Employee type does exist already in the database 	
OPEN ISSUES:	None.	

USE CASE NAME:	Search Employee Type		USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	3.3		
PRIORITY:	High		
SOURCE:			
PRIMARY BUSINESS ACTOR	Manager		
PRIMARY SYSTEM ACTOR	None		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 		
DESCRIPTION:	This use case describes the events where the manager is looking for a specific employee type. It involves the manager entering the employee type details so that the system can return the employee type that has been searched for by the manager.		
PRE-CONDITION:	Employee type already exists in the system database		
TRIGGER:	Manager		
TYPICAL COURSE OF EVENTS:	Step 1: The manager selects the 'search employee type option	Step 2: System checks if the manager has authority to search employee type	
		Step 3: System requests the manager to enter the details of the employee type to search for "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"	
	Step 4: Manager enters the employee type details for which they would like to search for "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"	Step 5: System validates the details entered by the manager	
		Step 6: System then checks system database for an employee type that the manager is searching for	
		Step 7: System then displays the employee type that has been searched for "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"	
ALTERNATE COURSES:	[Alt Step 2]: System notifies the manager that they do not have the authority to search an employee type. Use case terminates,		

	[Alt Step 5] : System verification of the details provided by the manager fails and return to step 3 "EMP_TypeID" "EMP_TypeName" "EMP_TypeDes"
	[Alt Step 7]: System notifies the manager that the search could not find the employee type they have searched for
CONCLUSION:	Employee type search has been found in the system database
POST-CONDITION:	None
BUSINESS RULES	None.
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> Employee type does exist already in the database
OPEN ISSUES:	<ul style="list-style-type: none"> None.

Siyaya Travel Assist		
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		Version: 2

USE CASE NAME:	Remove Employee Type	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	3.4	
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Manager	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Owner	
DESCRIPTION:	This use case describes the events where a manager would like to remove an employee type from being used for any new transactions. This involves the manager selecting the employee type to remove and confirming that the employee type should not be accessible any longer.	
PRE-CONDITION:	The employee type should already exist in the system database	
TRIGGER:	Manager/Owner	
TYPICAL COURSE OF EVENTS:	Step 1: The manager selects the ‘remove employee type’ option	Step 2: System checks to see if the manager has authority to remove an employee type
		Step 3: System then displays all the employee types in the database “EMP_TypeID” “EMP_TypeName” “EMP_TypeDes”
		Step 4: System prompts the manager to select the employee type they wish to remove

	Step 5: Manager selects the employee type they would like to remove “EMP_TypeID” “EMP_TypeName” “EMP_TypeDes”	Step 6: System requests confirmation that the selected employee type is the correct one to be removed
	Step 7: Manager selects the correct option	Step 8: System then disables the employee type to be used again in the database
		Step 9: System then displays a confirmation message to let the manager that the removal has been successful
ALTERNATE COURSES:	[Alt Step 2]: System finds the manager to not have authority to remove an employee type. Terminates use case	
	[Alt Step 8]: System fails to remove the employee type and returns to step 4	
CONCLUSION:	The manager selected employee type has successfully been removed from the system	
POST-CONDITION:	Employee Type still exists In previous records	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Employee Type already exists in the system database 	
OPEN ISSUES:	None	

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USE CASE NAME:	Search driver	USE CASE TYPE Business Requirements: <input type="checkbox"/> <input type="checkbox"/> System Analysis: <input type="checkbox"/> <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	4.1	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	● None	
OTHER INTERESTED STAKEHOLDERS:	● None	
DESCRIPTION:	This use case describes an event where booking consultant wants to search a driver on the system and enters the Driver name they want to search and retrieve the details of the driver such as the driver name, surname, license number and license type from the Driver table in the database.	

PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant selects the Search Driver option on the system	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant selects the Search Driver option of the driver on the system	Step 2: The system displays a page for the booking system to enter the search criteria.
	Step 3: The booking consultant enters the characters of the name of the driver they want to search	Step 4: The system verifies the character input
		Step 5: The system reads from the Driver table the Driver_Name
		Step 6: The system compares the characters received with the characters in the Driver table in the Driver_Name field until a match is found
		Step 7: The system retrieves the Driver_ID , Driver_Name , Driver_Surname , Driver_LicenceNumber , Driver_LicenceType , EMPID information related to the characters given from the Driver Table
		Step 8: The system displays the driver information retrieved
ALTERNATE COURSES:	Alt step 3: The characters given did not match system requirements and an error message is displayed	
	Alt step 6: A match is not found and an alert message is displayed	
CONCLUSION:	The system retrieves the information related to the Driver characters given	
POST-CONDITION:	The driver information searched has to be displayed for the booking consultant	
BUSINESS RULES	<ul style="list-style-type: none"> The booking consultant and the team leader work with the driver 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Check driver availability	USE CASE TYPE
USE CASE ID:	4.2	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Owner Driver supervisor 	
DESCRIPTION:	This use case describes an instance where the booking consultant wants to confirm a trip and checks the whether or not a driver is available. The booking consultant can then select the check availability option and the system returns a list of drivers which are available.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant wants to check whether or not a driver is available	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1: The booking consultant wants to check whether or not a driver is available and selects the Check Driver option	Step 2: The system retrieves the Trip Date TripTime From the information given through use case
		Step 3: The system reads from the Slot table the: Slot_Date Slot_Time
		Step 4: The system compares the Slot_Date and Slot_Time To the Trip Date and Trip Time and returns a list of the Driver_ID's and Driver_Name whose Slot_Date and Slot_Time did not match the Trip Date and Trip Time
		Step 5: The system displays the list of drivers that have been returned
ALTERNATE COURSES:	Alt step 4: There are no drivers available on the given date and time and a message is displayed that there are drivers available and the use case ends	
CONCLUSION:	The system displays the drivers who are available	
POST-CONDITION:	The schedule should be up to date at all times	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

USE CASE NAME:	Assign driver to trip	USE CASE TYPE Business Requirements: <input type="checkbox"/> <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	4.3	
PRIORITY:	High	
SOURCE:	Ndila transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Team leaderDriver supervisor	
DESCRIPTION:	This use case describes the event when the booking consultant wants to assign a specific driver to a vehicle. They check the availability of a driver and use case 4.2 Check Driver Availability is invoked. The booking consultant then chooses an available driver The name of the driver is then added on the slot.	
PRE-CONDITION:	There has to be a trip to assign a driver to.	
TRIGGER:	The booking consultant wants to assign a specific driver to a trip	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1: The booking consultant wants to assign a specific driver to a trip and selects assign driver option	Step 2: Invoke use case 4.2
	Step 3: The booking consultant selects Driver_Name to be booked	Step 4: The system verifies the information received
		Step 5: The system writes the Driver_Name to the Slot.
		Step 6: The system displays a message confirming the assignment.
ALTERNATE COURSES:	Alt step 2: The Use case returns a negative result, a message is displayed to the booking consultant and the use case ends	
CONCLUSION:	The slot is updated	
POST-CONDITION:	If a driver is unavailable, they cannot be assigned to another trip	
BUSINESS RULES	<ul style="list-style-type: none">A vehicle has to be assigned to a booked trip before a driver can be assigned to it	
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none">None	
ASSUMPTIONS:	<ul style="list-style-type: none">None	
OPEN ISSUES:	None	

USE CASE NAME:	Outsource Driver	USE CASE TYPE
USE CASE ID:	4.4	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Team leader Driver supervisor 	
DESCRIPTION:	This use case describes the event when the booking consultant wants to assign a specific driver to a vehicle. The booking consultant prompts the system to display the outsourced driver who is then added on the slot.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant wants to assign a specific driver to a trip	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1: The booking consultant wants to assign a driver to a trip and selects Outsource Driver option	Step 2: The system reads and displays information of: OutSoucreDriver_ID OutSource_Driver_Name OutSource_Driver_Surname LicenceType_ID from the OutSourced_Driver table
	Step 3: The booking consultant selects the driver desired to be booked	Step 4: The system writes the OutSoucreDriver_ID and OutSource_Driver_Name to the Slot.
		Step 5: The system displays a message confirming the assignment
ALTERNATE COURSES:	None	
CONCLUSION:	The slot is updated	
POST-CONDITION:	If a driver is unavailable, they cannot be assigned to another trip	
BUSINESS RULES	<ul style="list-style-type: none"> There has to be a pre-existing booking before a vehicle can be assigned 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

USE CASE NAME:	Add vehicle	USE CASE TYPE	
USE CASE ID:	5.1	Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>	
PRIORITY:	High		
SOURCE:	Ndila Transfers		
PRIMARY BUSINESS ACTOR	Booking consultant		
PRIMARY SYSTEM ACTOR	Booking consultant		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">None		
DESCRIPTION:	This use case describes when the booking consultant wants to add another vehicle onto the system database. They retrieve all the relevant vehicle information and a new vehicle is saved onto the system database.		
PRE-CONDITION:	The vehicle cannot be an existing vehicle in the system		
TRIGGER:	The booking consultant wants to add another vehicle		
TYPICAL COURSE	Actor Action	System Response	
OF EVENTS:	Step 1: The booking consultant wants to add another vehicle and selects the Add Vehicle option.	Step 2: The system displays a page where the booking consultant can add the required details of the vehicle such as: Vehicle_Model Vehicle_Make_Name Vehicle_Make_Description Vehicle_Colour ServiceProvider	
	Step 3: The booking consultant adds the necessary details of the new vehicle	Step 4: The system verifies the information gathered	
		Step 5: The system creates a new Vehicle_ID , VehicleMake_ID , VehicleMaintenance_ID by retrieving the last line in Vehicle_ID , VehicleMake_ID , VehicleMaintenance_ID in the Vehicle , VehicleMake , VehicleMaintenance table, increments by 1 and assigns a new Vehicle_ID , VehicleMake_ID , VehicleMaintenance_ID	
		Step 6: The system adds the new Vehicle_ID , VehicleMake_ID , VehicleMaintenance_ID and	

		the given Vehicle_Model , Vehicle_Colour_Description Vehicle_Make_Name , Vehicle_Make_Description Vehicle_ID ServiceProvider into the Vehicle , Vehicle_Make , VehicleMaintenance tables
		Step 7: The system displays a message that a new vehicle has been added to the system
ALTERNATE COURSES:	Alt step 4: The booking consultant made an error with the entered information and an error message is provided	
CONCLUSION:	A new vehicle is added onto the system database	
POST-CONDITION:	The vehicle should be ready to book and use	
BUSINESS RULES	<ul style="list-style-type: none"> • None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> • None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Search vehicle	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	5.2	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">• None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">• Team Leader• Driver supervisor	
DESCRIPTION:	This use case describes an event where booking consultant wants to search for a vehicle on the system and enters the vehicle name they want to search and retrieve the details of the vehicle from the Vehicle table in the database.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant selects the Search Vehicle option on the system	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1: The booking consultant selects the Search Vehicle option of the driver on the system	Step 2: The system displays a page for the booking system to enter the search criteria.

	Step 3: The booking consultant enters the characters of the vehicle they want to search	Step 4: The system verifies the character input
		Step 5: The system reads from the Vehicle table the Vehicle_Model
		Step 6: The system compares the characters received with the characters in the Vehicle table in the Vehicle_Model field until a match is found
		Step 7: The system retrieves the Vehicle_ID , Vehicle_Model , the VehicleMake_ID , VehicleMaintenance_ID , VehicleColour_ID , VehicleLicencePlates information related to the characters given from the Vehicle Table
		Step 8: The system displays the retrieved information.
ALTERNATE COURSES:	Alt step 4: The characters given did not match system requirements and an error message is displayed	
	Alt step 6: A match is not found and an alert message is displayed	
CONCLUSION:	The system retrieves the information related to the Vehicle characters given	
POST-CONDITION:	The vehicle information searched has to be displayed for the booking consultant	
BUSINESS RULES	<ul style="list-style-type: none"> The booking consultant and the team leader work with the driver 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Confirm Trip	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	5.3	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Team LeaderDriver supervisorPassenger	

	<ul style="list-style-type: none"> • Driver 	
DESCRIPTION:	This use case describes the event where the trip information such as the driver name, driver surname, departure point and destination point as well as the vehicle information is sent to the relevant people to inform them of the trip details. The system sends an SMS to the passenger and the driver	
PRE-CONDITION:	The trip has to be an existing trip	
TRIGGER:	The booking consultant wants to send out confirmation messages	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant wants to send out a confirmation message and clicks on the Confirm booking option	Step 2: The system retrieves the current date and time and increments the day of the current day by 1
		Step 3: The system reads from the Slot table in the database the following fields: BookingReference_ID Passenger_ID, Driver_ID, DeparturePoint, DestinationPoint Time for every line
		Step 4: The system retrieves the Passenger_Tel in the Passenger table and the Driver_Contact Driver_Name from the Driver table
		Step 5: The system sends a confirmation message to the contact number of the Passenger with the: Booking reference, Driver name, Departure point, Destination point and Time of trip via SMS
		Step 6: The system runs a function that reads the first Driver_ID Driver_Contact AddedToLog line in Slot Table, compares it to the rest and stores it in a temporary function
		Step 7: The system sends a message to the Driver_Contact with the following: Passenger_Name, Departure point, Destination Point Time of trip via SMS

		Step 8: The system displays a message to that the trips have been confirmed
ALTERNATE COURSES:	None	
CONCLUSION:	A confirmation message of the trip is sent to the Passenger and the Driver	
POST-CONDITION:	The driver and the passenger must be aware of the confirmation of the trip	
BUSINESS RULES	<ul style="list-style-type: none"> The booking consultant sends out the trips at the end of a business day 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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Author (s): Nondumiso Mahlangu		Date: 04-22-2019
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USE CASE NAME:	Check Vehicle Availability	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	5.4	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">OwnerDriver supervisor	
DESCRIPTION:	This use case describes an instance where the booking consultant wants to confirm a trip and checks the whether or not a vehicle is available. The booking consultant can then select the check availability option and the system returns a list of Vehicles which are available.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant wants to check whether or not a vehicle is available	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant wants to check whether or not a driver is available and selects the Check availability option	Step 2: The system retrieves the Trip Date TripTime Number_of_Passengers From the Booking table
		Step 3: The system reads from the Slot table the: Slot Date

		Slot_Time and the Number_of_Passengers from the Vehicle Group table
		Step 4: The system compares the Slot_Date and Slot_Time To the Trip Date and Trip Time and returns a list of the Vehicle_ID's and Vehicle_Model Number_of_Passengers whose Slot_Date and Slot_Time did not match the Trip Date and Trip Time
		Step 5: The system displays the list of vehicles that have been returned
ALTERNATE COURSES:	Alt step 4: There are no vehicle available on the given date and time and a message is displayed that there are vehicles available and the use case ends	
CONCLUSION:	The system displays the vehicles that are available	
POST-CONDITION:	The schedule should be up to date at all times	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Assign vehicle to trip	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	5.5	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">• None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">• Team leader• Driver supervisor	
DESCRIPTION:	This use case describes the event when the booking consultant wants to assign a specific driver to a vehicle. They check the availability of a driver and use case 4.2 Check Driver Availability is invoked. The booking consultant then chooses an available vehicle that is then added on the slot.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant wants to assign a specific driver to a trip	

TYPICAL COURSE OF EVENTS:	Actor Action Step 1: The booking consultant wants to assign a specific vehicle to a trip and selects assign vehicle option	System Response Step 2: Invoke use case 4.2
	Step 3: The booking consultant selects Vehicle_Model to be booked	Step 4: The system writes the Vehicle_ID and Vehicle_Model to the Slot .
		Step 5: The system displays a message confirming the assignment.
ALTERNATE COURSES:	None	
CONCLUSION:	The slot is updated	
POST-CONDITION:	If a driver is unavailable, they cannot be assigned to another trip	
BUSINESS RULES	<ul style="list-style-type: none"> There has to be a pre-existing booking before a driver can be assigned 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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Author (s): Nondumiso Mahlangu

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USE CASE NAME:	Outsource Vehicle	USE CASE TYPE
USE CASE ID:	5.6	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Team leader Driver supervisor 	
DESCRIPTION:	This use case describes the event when the booking consultant wants to assign a specific driver to a vehicle. The booking consultant prompts the system to display the vehicle then chooses an available vehicle that is then added on the slot.	
PRE-CONDITION:	The booking consultant has to be logged onto the system	
TRIGGER:	The booking consultant wants to assign a specific driver to a trip	
TYPICAL COURSE OF EVENTS:	Actor Action Step 1: The booking consultant wants to assign a specific vehicle to a trip and selects assign vehicle option	System Response Step 2: The system displays information of: OutSoucreVehicle_ID OutSource_Vehicle_Model

		OutSource_Make from the OutSource_Vehicle table
	Step 3: The booking consultant selects the vehicle model desired to be booked	Step 4: The system writes the Vehicle_ID and Vehicle_Model to the Slot .
		Step 5: The system displays a message confirming the assignment
		.
ALTERNATE COURSES:	None	
CONCLUSION:	The slot is updated	
POST-CONDITION:	If a vehicle is unavailable, they cannot be assigned to another trip	
BUSINESS RULES	<ul style="list-style-type: none"> There has to be a pre-existing booking before a vehicle can be assigned 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Create vehicle group	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	6.1	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	Booking consultant	
OTHER PARTICIPATING ACTORS:	● None	
OTHER INTERESTED STAKEHOLDERS:	● None	
DESCRIPTION:	This use case describes an instance when the booking consultant wants to add another vehicle group onto the system database. They retrieve all the relevant vehicle group information and a new vehicle is saved onto the system database.	
PRE-CONDITION:	The vehicle group cannot be an existing vehicle group in the system	
TRIGGER:	The booking consultant wants to add another vehicle group	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1: The booking consultant wants to add another vehicle group and selects the Add Vehicle Group option.	Step 2: The system displays a page where the booking consultant can add the required details of the vehicle group such as: VehicleGroup_Name VehicleGroup_Description
	Step 3: The booking consultant adds the necessary	Step 4: The system verifies the information gathered

	details of the new vehicle group	
		Step 5: The system retrieves the last line in Vehicle group ID , increments by 1 and assigns a new Vehicle group ID
		Step 6: The system writes the information given into the Vehicle group table under the new Vehicle group ID
		Step 7: The system sends a message that a new vehicle group is added
ALTERNATE COURSES:	Alt step 4: The booking consultant made an error with the entered information and an error message is provided	
CONCLUSION:	A new vehicle group is added onto the system database	
POST-CONDITION:	The vehicle group information has to be complete	
BUSINESS RULES	<ul style="list-style-type: none"> • None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> • None 	
OPEN ISSUES:	None	

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USE CASE NAME:	Search vehicle group	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	6.2	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	● None	
OTHER INTERESTED STAKEHOLDERS:	● None	
DESCRIPTION:	This use case describes the booking consultant wanting to search a vehicle group uses the Vehicle group ID to search and retrieve the details of the vehicle from the Vehicle group table in the database.	
PRE-CONDITION:	The vehicle group has to have a unique ID	
TRIGGER:	The booking consultant enters the Vehicle group ID of the driver onto the system	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant selects the Search Vehicle Group option of the driver on the system	Step 2: The system displays a page for the booking system to enter the search criteria.
	Step 3: The booking consultant enters the	Step 4: The system verifies the character input

	characters of the vehicle group they want to search	
		Step 5: The system reads the VehicleGroup_Name from the table Vehicle Group
		Step 6: The system compares the characters received with the characters in the Vehicle table in the Vehicle_Model field until a match is found
		Step 7: The system retrieves the VehicleGroup_ID , VehicleGroup_Name , VehicleGroup_Description , information related to the characters given from the Vehicle Group Table
		Step 8: The system displays the retrieved information.
ALTERNATE COURSES:	Alt step 3: The characters given did not match system requirements and an error message is displayed	
	Alt step 6: A match is not found and an alert message is displayed	
CONCLUSION:	The system retrieves the information related to the Vehicle group ID given	
POST-CONDITION:	The vehicle group information searched has to be displayed for the booking consultant	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

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Author (s): Matabane Mathopatona

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USE CASE NAME:	Register client	USE CASE TYPE Business Requirements: System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	7.1	
PRIORITY:	HIGH	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking Consultants	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">Operational Manager	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	The use case describes an event where a new client is registered on the system. The use case begins when the client wants to start using Ndila services or has interest in using the Ndila services, client details such as	

	name of agency in case of agency, physical address, email, contact number, Client reference can either be client id number (Private clients) or Company registration number(Agencies) will be required to be captured and stored under the Client Table . The use case concludes when the client is added to the Client table	
PRE-CONDITION:	The client must have not used Ndila services before	
TRIGGER:	Request to be added to the system through phone call	
TYPICAL COURSE OF EVENTS:	Step 1: Client will request to use the Ndila services or associate themselves with Ndila	Step 2: The booking consultant selects to add client
		Step 3: The system prompts the booking consultant to enter the following client details: Name of client/agency Physical address of the agency Email address Phone number Client type Client_Reference
	Step 4: The client provides the requested details	Step 5: The booking consultant captures the details of the new client
		Step 6: The booking consultant confirms with the client if the information is correct
	Step 7: The client confirms the information is correct	Step 8: The Booking consultant submits, and the system validates the information provided for in case of incorrect format
		Step 9: The system validates if the client exists in the CLIENT table
		Step 10: The system stores the details of the client under Client table. Name ->Client_Name PhysAddress-> Client_Address EmailAddress->Client_Email PhoneNo-> Client_Tel ClientRef -> Client_Reference Select Client type ID retrieved from Client_Type table
		Step 11: The system confirms that the client is successfully added to the Client table and it is communicated to the client by the Booking Consultant
ALTERNATE COURSES:	Alt Step 7: The client declines Step 7a: The booking consultant requests for the details to be rectified. Return to step 5	
	Step 8: Returns an error message explaining wrong information is provided and the first place where the error is identified it will be highlighted requesting correct details. Return to step 3	

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Author (s): Matabane Mathopatona

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	<p>ALT Step 9: The system retrieves the details of the existing client and the booking consultants communicate with the client that they have already been added to the system.</p> <p>Step 9a: The booking consultant requests the client to confirm the details</p> <p>Step 9b: The client confirms the details.</p> <p>Step 9c: The booking consultant ends the task</p> <p>Step 11: The system fails to add the client to the table and returns an error message. The use case end</p>
CONCLUSION:	The client is added to the system
POST-CONDITION:	The client should use our services
BUSINESS RULES	•
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•
ASSUMPTIONS:	•
OPEN ISSUES:	

USE CASE NAME:	SEARCH CLIENT	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>	
USE CASE ID:	7.2		
PRIORITY:	HIGH		
SOURCE:	Ndila Transfers		
PRIMARY BUSINESS ACTOR	Booking Consultant		
PRIMARY SYSTEM ACTOR			
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> • Manager 		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> • 		
DESCRIPTION:	The use case describes an event where a user searches for the client in the system. The use case begins by requesting the name of the agency or client to search, Information about the client if it exists in the Client table, else an error message is displayed informing the booking consultant that the user is not registered on the system. The use case concludes when the details are retrieved from the Client table provided it exists		
PRE-CONDITION:			
TRIGGER:	Retrieve a client's details		
TYPICAL COURSE OF EVENTS:	Actor Action	System Response	
	Step 1: Selects the option to search for a client	Step 2: The system displays the following information about all the clients in the Client table: Client_Name Client_Reference Client_PhoneNumber Client_Email	
		Step 3: The system prompts the booking consultant to enter: Client_Name or Client_Reference	
	Step 4: The booking consultant enters the client name/agency or Client reference and selects search	Step 5: The system validates for correct input formats	
		Step 6: System narrows the list of clients based on the client/agency name	
	Step 7: The booking consultant selects the specific client	Step 8: The system displays the following details of the client: Client_Name Client_Reference Client_PhoneNumber Client_Email Client_Address Client_type Retrieved from the Client table.	
ALTERNATE COURSES:	ALT Step 5: An error message is display by the system informing the booking consultant with input error. The booking consultant can either go back to Step 3 or terminate the search		

	ALT Step 6: An error message informing the booking consultant that the specific client does not exist in the Client table. The booking consultant can either go back to Step 3 or terminate the search.
CONCLUSION:	Client details are retrieved from the client stable
POST-CONDITION:	
BUSINESS RULES	•
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•
ASSUMPTIONS:	•
OPEN ISSUES:	

Siyaya Travel Assist	
Author (s): Matabane Mathopatona	Date: 04-22-2019 Version: 2

USE CASE NAME:	Update Client	USE CASE TYPE Business Requirements:X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	7.3	
PRIORITY:	High	
SOURCE:	Ndila Transfer	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This use case describes an event where a user details are to be updated by the booking consultant. The use case begins by the client requesting to update their details such as location, contact details and so forth. The client provides their name and the client is searched on the system. Client provides the specific details that needs to be updated. The booking consultant will then capture the details and update them on the system	
PRE-CONDITION:	The client must exist in the system	
TRIGGER:	The client calls in to update their details	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The client calls in to request to update their details	Step 2: The booking consultant will select client Section
		Step 3: The system invokes Use case 7.3 search client
		Step 4: The booking consultant selects update client.
		Step 6: The system allows the following fields to be modified:

		Client_Name Client_Reference Client_PhoneNumber Client_Email Client_Address Client_Fax Client_type
		Step 7: The booking consultant requests for the details of the specific fields that the client would like to update
	Step 8: The client provides the specific details that needs to be updated	Step 9: The booking consultant captures the information of the specific details that needs to be updated and selects update
		Step 10: The system validates the information in the input fields
		Step 11: The system saves the updated details in the Client table
		Step 12: The system informs the booking consultant of successfully updating the information in the Client table
ALTERNATE COURSES:	Alt Step 10: The information provided is invalid the booking consultants' requests for correct information and return to step 7	
	ALT Step 12: The system notifies the booking consultant that it failed to update the client details returns to step 7 or terminates	
CONCLUSION:	The client's information is updated in the Client table.	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Matabane Mathopatonona		Date: 04-22-2019
		Version: 2

USE CASE NAME:	Add Client Type	<div>USE CASE TYPE</div> <div>Business Requirements:X</div> <div>System Analysis: <input type="checkbox"/></div> <div>System Design: <input type="checkbox"/></div>
USE CASE ID:	8.1	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Operations Manager	
PRIMARY SYSTEM ACTOR		

OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	The use case describes an event where client type is added to the system the client type can either be private or public, public clients are agencies, governments and companies. Private clients are individual people requesting for a personal transportation. The name, description of the client type will be added to the system. The system concludes when the type is added to the database.	
PRE-CONDITION:	Operation Manager should be logged in	
TRIGGER:	Request to add new Client Type	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The operations manager logs on the system and request to add new client type	Step 2: The system prompts the Operational Manager to capture following client type details: Client_Type_Name Client_Type_Description
	Step 3: The operations manager enters the required details of the client type, selects submit	Step 4: The system checks if the information provided is in valid format
		Step 5: The system validates if the client type exists in the Client_Type table
		Step 6: The system stores the required details in the Client_Type table
		Step 7: The system confirms the successful adding of the client type to the Client_Type table
ALTERNATE COURSES:	ALT Step 4: The system displays an error message informing the operations manager that the information provided is invalid and request the operations to either enter information or terminate.	
	ALT Step 5: The system displays an error message Informing the operations manager that the client type exists.	
	ALT Step 7: The system informs the operational manager that it failed to store the new client_type ,the manager can return to step 3 or terminate	
CONCLUSION:	The client type is added to the database	
POST-CONDITION:		
BUSINESS RULES		
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS		
ASSUMPTIONS:		
OPEN ISSUES:		
	•	

Siyaya Travel Assist

Author (s): Matabane Mathopatona

Date: 04-22-2019

Version: 2

USE CASE NAME:	Search Client Type	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: X System Design: <input type="checkbox"/>
USE CASE ID:	8.2	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking Consultants	
PRIMARY SYSTEM ACTOR		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	This use case describes an event of searching a client type in the database. The name of the client type is typed and it is search if it exists. The details of the client type are retrieved if it exists	
PRE-CONDITION:		
TRIGGER:	Checking if the client type exists	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The Booking consultant wants to search and selects the Client section on the system	Step 2: The system displays operations that the user can perform such as update, search, add new client type
	Step 3: The Booking consultant selects the search operation	Step 4: The system prompts the name of the client type to be searched And displays all the client types in the Client_Type table Client_Type_Name Client_Type_Description
	Step 5: The user enters the name of the client type in the search field	Step 6: The system validates the name provided in the input box if it's in correct format such as no numbers or the search field is not empty
		Step 7: The system displays the following details retrieved from Client_Type table of a client types matching the name entered in the search field: Client_Type_Name Client_Type_Description
	Step 8: The Booking consultant selects the specific client type	
		Step 9: The details of the client type retrieved from the Client_Type table are displayed on the screen:

		Client_Type_Name-> Client_Type_Name Client_Type_Description-> Client_Type_Description
ALTERNATE COURSES:	ALT Step 6: The system displays an error message informing the user incorrect input and request for correct input or the user can terminate the search ALT Step 9: The specific client type does not exist in the ClientType table	
CONCLUSION:	The details of the client type are retrieved from the ClientType table.	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Matabane Mathopatonana	Date: 04-22-2019	
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USE CASE NAME:	Update Client Type	USE CASE TYPE Business Requirements:X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	8.3	
PRIORITY:	High	
SOURCE:	Ndila Transfer	
PRIMARY BUSINESS ACTOR	Operations Manager	
PRIMARY SYSTEM ACTOR		
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	The use case describes an event where a client type is to be updated on the system. The use case begins by searching the specific client type and retrieving all the updatable field such as description or the name of the client type. The use case concludes when the Client type is updated in the ClientType table.	
PRE-CONDITION:	Operations manager needs to be logged in	
TRIGGER:	To update the specific client type	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The Operations manager requests to update a specific client type by	Step 2: The system displays the available operations to be performed under client type

	selecting the Client section on the screen	
	Step 3: The operations manager selects the update client type	Step 4: The system requests the user to enter the name of the specific type, the user wants to update.
	Step 5: The operations manager enters the name of the specific client type	Step 6: The system invokes use case 8.2(Search Client type).
	Step 7: The operations manager selects the update options	Step 7: The system allows the following fields to be updated : Client_Type_Description Client_Type_Name
	Step 8: The operations manager enters new information on the fields they want to update and clicks the button update	Step 9: The system validates the information in the updated fields
		Step 10: The system saves the updated information in the ClientType table. And alerts the operations manager that it is successfully added.
ALTERNATE COURSES:	ALT Step 9: The system informs the operations manager that the information provided is not in a correct format. The operations manager can either terminate or Go to Step 5 .	
	ALT Step 10: The system informs the operations manager that it failed to update the client type details and can either terminate or return to step 5	
CONCLUSION:	The client type is updated in the ClientType table	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Matabane Mathopatonana		Date: 04-22-2019
		Version: 2

USE CASE NAME:	CREATE BOOKING	USE CASE TYPE	
USE CASE ID:	9.1	Business Requirements:	X
PRIORITY:	High	System Analysis:	<input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design:	<input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Client (Agency or Private Client)		

PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> • Driver • Driver Supervisor 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> • Operations Manager 	
DESCRIPTION:	<p>This use case describes an event where a client request to make a booking for a trip. The use case begins when the client calls in or sends an email to request for services. The name of the client/agency will be required to check if they have used the services before else they are added to the system. The booking information such as date, time, location (Departure and destination), Vehicle group/number of people to be transported and Passenger details. A quote is generated and communicated to the client. The use case concludes when the Booking is saved in the booking table.</p>	
PRE-CONDITION:	Must be registered client	
TRIGGER:	Calls or sends an email to request to book a trip	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: Client calls/emails in to request a booking	Step 2: The Booking consultant selects to create a Booking
		Step 3: The system prompts the booking consultant to enter the following details ClientName
	Step 4: The client provides their agency name	Step 5: The booking consultant captures the name of the agency in the input field and select search
		Step 6: The system validates the information entered in the input field
		Step 7: invoke use case search client and retrieves the client details
		Step 8: The booking consultant confirms the details of the client retrieved from the Client table
	Step 9: The client confirms the details	Step 10: The System saves the client information retrieved from the Client table in the input fields
		Step 11: The system prompts the booking consultant to enter the following details: <i>DateOfPickUp</i> <i>DateOfArrival</i> <i>TimeOfPickUp</i> <i>TimeOfArrival</i> <i>PickupLocation</i> <i>DropOffLocation</i> <i>NumberOfPassengers</i>
	Step 12: The client provides the requested details	Step 13: The booking consultant captures the details provided by the client
		Step 14: The system validates the input if it's in correct format

		Step 15: The system validates if the booking exists in the Booking table
		Step 16: invokes use case <i>Generate quote and retrieves the generated quote</i>
		Step 17: The system prompts confirmation of the estimated price of the trip
Step 18: The client agrees to the trip price		Step 19: The system prompts the Booking consultant to enter the following details of <u>Passenger</u> Passenger Name Passenger Surname Passenger PhoneNo Booking Order
Step 20: The client provides the details of the person to be collected		Step 21: The booking consultant captures the details provided to their respective fields
		Step 22: The system validates the information in the input fields
		Step 23: The system validates if the passenger exists in the <u>Passenger</u> table
		Step 24: System saves the Passenger details in <u>Passenger Table</u> Name -> Passenger_Name Surname -> Passenger_Surname PhoneNo-> Passenger_PhoneNo BookingOrder-> Booking_Order
		Step 25: The system prompts the booking consultant to enter pickup Instructions
Step 26: The client provides instructions about the collection		Step 27: The booking consultant captures the instructions
		Step 28: The system prompts for Booking confirmation
Step 29: The client confirms the booking details		Step 30: The system Auto Generate Booking_Reference, Saves the Booking details in <u>Booking_Trip table</u> DateOfPickup->Date_of_PickUp DateOfArrival->Date_of_Arrival PickUpTime->Time_Of_PickUp ArrivalTime->Time_Of_Arrival “Awaiting Voucher” -> Booking_Status Retrieve Pickup_Location_ID from Location table PLocationID->Pickup_Location_ID DLocationID->DropOff_Location_ID PassNumber->Number_Of_Passengers

		saves the following quote details in the Invoice table InvoiceNo->Invoice_Number InvoiceDate->Invoice_Date “Outstanding”-> Payment_Status BookingRef->Booking_Reference Booking_Cost->Booking_Cost
		Step 31: The System displays the booking reference.
		Step 32: The booking consultant notifies the client that the trip has been captured and it will be approved upon receiving a voucher card
ALTERNATE COURSES:		
		ALT step 6: Incorrect input returns to step 4
		ALT Step 7: Error message informing that the client doesn't exist and invokes use 7.1 Add Client
		ALT Step 9: Declines and request to update their details by invoking use case 7.3 Update client
		ALT Step 14: The input is incorrect and request valid input returns to step 12
		ALT Step 15: The booking already exists, and it is communicated to the client terminates.
		ALT Step 18: The client declines and the price is negotiated, The price gets overwritten
		ALT Step 22: The input is invalid returns to step 31
		ALT Step 23: The Passenger already exists in the Passenger table — Retrieve the Passenger_ID from Passenger table , return step 25
		ALT Step 24: The system failed to store Passenger , terminates
		ALT Step 29: The client declines the booking details and provides the specifics that needs update
		ALT Step 31: The system failed to save the booking and terminates
CONCLUSION:		The trip is successfully stored in the booking table
POST-CONDITION:		A voucher card must be submitted for the trip to be executed
BUSINESS RULES		<ul style="list-style-type: none"> Booking reference will be assigned to every booking
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS		<ul style="list-style-type: none"> Other agencies submit their voucher card late, System must be overwritten to allow such cases
ASSUMPTIONS:		<ul style="list-style-type: none">
OPEN ISSUES:		

USE CASE NAME:	Search Booking	USE CASE TYPE Business Requirements: X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	9.2	
PRIORITY:	High	
SOURCE:	Ndila Trasnfers	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	• Manager	
OTHER INTERESTED STAKEHOLDERS:	• Drivers	
DESCRIPTION:	This use case describes an event where a booking is searched by a booking consultant in a case where they want to update it or retrieve its details. The search can be performed by either using name of client or booking reference. Booking details are retrieved from the following tables; Booking table, Invoice , Vehicle_Group , Driver , Passenger and are displayed on the screen when the booking consultant types in characters like the booking reference or client name.The use case concludes when the results are found	
PRE-CONDITION:	The booking reference should be valid	
TRIGGER:	Search for the booking	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant selects search Booking.	Step 2: The system displays a list of bookings containing the following details retrieved from the Booking table: Booking_Reference Client_Name Date_of_PickUp Date_of_Arrival Time_Of_PickUp Time_Of_Arrival Pickup_Location DropOff_Location
		Step 3: The system prompts the booking consultant to enter the Booking_Reference/agency name
	Step 4: The Booking consultant enters the booking reference /agency name	Step 5: The system validates the input for valid format

		Step 6: Bookings that have similar characters as the one typed in the search field are retrieved from the Booking table displayed
	Step 7: The booking consultant selects the specific client	Step 8: Information about the booking such as Booking_Reference Client_Name Date_of_PickUp Date_of_Arrival Time_Of_PickUp Time_Of_Arrival Pickup_Location DropOff_Location Booking_Status Vehicle_Assigned retrieved from the Vehicle_Group table Driver_Assigned retrieved from the Driver table Number_Of_Passengers Passenger_Name Passenger_Surname Passenger_PhoneNo Booking_Order Retrieved from Booking table is displayed on the screen.
ALTERNATE COURSES:		ALT Step 5: The system prompts Invalid input return to step 3
		ALT Step 6: An empty list is displayed
		ALT step 7: The Booking doesn't exist can either return to step 3 or terminate
CONCLUSION:		Details of the specific booking are retrieved
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

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Author (s): Matabane Mathopatona

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USE CASE NAME:	Update Booking	USE CASE TYPE Business Requirements: X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	9.3	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This use case describes an event where a user wants to update a booking made by a client. The booking consultant will request the booking reference or the name of the client/agency who made the booking. The booking will invoke the search booking and details of the booking are retrieved enabling the booking consultant to modify the details. The use case concludes when the booking is updated	
PRE-CONDITION:	A valid booking reference should be provided	
TRIGGER:	Request to update booking details	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The client will request to update the details of the Booking	Step 2: The booking consultant selects the Booking Section
		Step 3: The system prompts the booking consultant to enter the Booking Reference
	Step 4: The client provides the booking reference	Step 5: The booking consultant enters the booking reference and invoke use case search booking
		Step 6: The booking consultant selects update booking

		Step 7: The system enables the booking consultant to update the following fields Date_of_PickUp Date_of_Arrival Time_Of_PickUp Time_Of_Arrival Pickup_Location DropOff_Location Number_Of_Passengers Passenger_Name Passenger_Surname Passenger_PhoneNo Booking_Order Booking_status Client_Name
		Step 8: The booking consultants asks the client which details they will like to update.
	Step 9: The client provides the details that they want to update.	Step 10: The booking consultant enters the new information and submit
		Step 11: The system verifies if the information provided is in a correct format
		Step 12: The system stores the updated information under Booking table
		Step 13: The System confirms that the update is complete
		Step 14: The booking consultant confirms with the client that the update is complete.
ALTERNATE COURSES:	ALT Step 11: The system displays an error message informing the booking consultant that incorrect input return to step 10	
	ALT Step 13: The system informs the booking consultant that the system failed to update the booking details	
CONCLUSION:	This use case concludes when the booking is updated.	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

USE CASE NAME:	Cancel Booking	USE CASE TYPE Business Requirements:X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	9.4	
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	This use case describes an event where a client will like to cancel a booking. The booking consultant will request the name of the client and a reference provided to the client for the booking. The booking consultant will check if the booking really exists in the Booking table and check if the driver has been dispatched already. If driver has been dispatched the client will be requested to pay the amount charged, Else the booking is cancelled, and the driver is informed about the cancellation of the trip. The system concludes when the booking has been cancelled	
PRE-CONDITION:	A valid booking reference should be provided	
TRIGGER:	The client calls in and requests to cancel a trip	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The client calls in to request a cancellation of a booking	Step 2: The booking consultant selects the Booking section and select Cancel Booking
		Step 3: The system prompts the booking consultant to enter the Booking reference
	Step 4: The client provides the booking reference	Step 5: The booking consultant enters the booking reference and invokes use case Search Booking
		Step 6: The booking consultant checks if the trip is due by comparing departure time with the current time the client is requesting for a cancellation
		Step 7: The booking consultant selects proceed
		Step 8: The system prompts the booking consultant to enter reasons for cancellation
	Step 9: The client provides the specific reasons of trip cancellation	Step 10: The booking consultant captures the cancellation reason and submits
		Step 11: The system updates the availability of a vehicle for that

		specific date and time by removing it in slot table
		Step 12: The system updates the availability of driver and the driver is informed about the cancellation of the trip.
		Step 13: The system updates the schedule to indicate that the trip is canceled
		Step 14: The system updates the Payment_Status under Invoice table that the trip is cancelled.
		Step 15: The system updates the Booking_Status to cancelled
		Step 16: The booking consultant communicates with the client the completion of the booking cancellation
ALTERNATE COURSES:		
		Alt Step 7: The booking consultant informs the client that the trip is due already and they must pay 50% of the total cost of the trip then proceed
		Alt Step 14: The booking consultant will update the payment status under Invoice table to payment outstanding.
		ALT Step 16: Failed to cancel the booking then terminates
CONCLUSION:	The use case concludes when the trip is cancelled	
POST-CONDITION:		
BUSINESS RULES	<ul style="list-style-type: none"> Client must pay up 50% of the amount if the trip is already due 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> 	
ASSUMPTIONS:	<ul style="list-style-type: none"> 	
OPEN ISSUES:		

USE CASE NAME:	Confirm Booking	USE CASE TYPE Business Requirements:X System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	9.5	
PRIORITY:	High	
SOURCE:	Ndila	
PRIMARY BUSINESS ACTOR	Booking Consultant	
PRIMARY SYSTEM ACTOR		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">Agency	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">Operational /financial Manager	
DESCRIPTION:	This use case describes an event where a booking is to be confirmed after receiving a voucher card from the agency. The agency sends an email with a voucher card which is used to confirm that the agency is aware of the trip and approves of the costs of the trip. The booking consultants assigns vehicle and driver upon receiving the email from the agency. This use case concludes when the trip is booked, and its status is updated.	
PRE-CONDITION:	The booking should exist and a voucher card	
TRIGGER:	Voucher card received from the agency	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant receives an email from the agency containing the voucher card for a trip	Step 2: The system requests the booking reference from the booking consultant
	Step 3: The booking consultant inputs the booking reference	Step 4: The system invokes use case search Booking and retrieves the details of the booking and allows modification
	Step 5: The booking consultant checks for available vehicle by invoking use case <i>check vehicle availability</i> .	Step 6: The available vehicles are displayed based on the criteria given
	Step 7: The booking consultant selects the specific vehicle suitable for the specific trip	Step 8: The system invokes use case <i>assign vehicle</i>
	Step 9: The booking consultant checks for available driver and invoke use case <i>check driver availability</i> .	Step 10: The available drivers are displayed based on the criteria given.
	Step 11: The booking consultant selects the specific driver	Step 12: The system invokes use case <i>assign driver</i>

	Step 13: The booking consultant invokes use case <i>Create schedule</i>	Step 14: The system updates the booking's status to complete in the booking table
	Step 15: The booking consultant calls the agency to confirm that the voucher is received the booking is approved.	
ALTERNATE COURSES:	ALT step 4: The booking is not found and use case <i>create booking</i> is invoked.	
	ALT Step 7: Outsource a vehicle and a driver and skip steps to step 13	
	ALT step 11: Outsource a driver.	
CONCLUSION:	This use concludes when the trip's is confirmed and updated in the schedule	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Mpho Mosotho	Date: 04-22-2019	
	Version: 2	

USE CASE NAME:	Add to Schedule	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	10.1	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Booking Consultant	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	This use case describes the event where a booking is added to the schedule. The Consultant will add a booking that is being made to the schedule by providing all the necessary details, allowing the system to validate the input information and save it to a database.	
PRE-CONDITION:	Consultant has captured all booking details	
TRIGGER:	Use Case Confirm Booking	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: A Consultant wants to add a booking to the Main schedule	Step 2: The system retrieves the relevant information from the booking Use Case that has been made: <ul style="list-style-type: none">BookingReferenceClient_IDDriver_IDDateTimeDestination TimeDestinationLocationTripDuration (Which is calculated using Time and Destination Time)
		Step 3: System validates the format for the retrieved details
		Step 4: System retrieves the last Schedule_ID from the Schedule Table and increments it by one.
		Step 5: System will store the booking using the retrieved information (Date, Time, TripDuration) on the day chosen using the Date details alongside the new Schedule_ID
		Step 6: System displays a confirmation message to the manager

ALTERNATE COURSES:	ALT Step 3: The entered information is invalid. The system displays an error message stating that the formatting is incorrect and terminates the use case and returns to the Create Booking Use Case.	
CONCLUSION:	A new booking has been added to the schedule and has been saved	
POST-CONDITION:	The Consultant will be able to view the entered booking on the schedule	
BUSINESS RULES	<ul style="list-style-type: none"> 	
IMPLEMENTATION CONTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> 	
ASSUMPTIONS:	<ul style="list-style-type: none"> 	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Mpho Mosotho	Date: 04-22-2019	
	Version: 2	

USE CASE NAME:	Update Schedule	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	10.2	
PRIORITY:	Medium	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Client	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	This use case describes the event where a Manager wants to update the details of the bookings that are already slotted and saved onto the system as well as in the Schedule table in the database, this may be due to outdated or incorrect information that was entered. The use case concludes with the system updating the required details on the system.	
PRE-CONDITION:	Booking has already been stored in the schedule	
TRIGGER:	Consultant wants to update the scheduled booking	

TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: Consultant wants to update the scheduled booking	Step 2: System displays the schedule options
	Step 3: Consultant selects the View Schedule option	Step 4: System invokes the View Schedule Use case
		Step 5: System displays the booking details which are retrieved from the Schedule table. The following details can be edited: <ul style="list-style-type: none"> • Date • Time • TripDuration
	Step 6: Consultant updates the relevant information based upon the given changes	Step 7: The system reads the updated details entered and validates them
		Step 8: The system displays a validation message indicating the correct format for the details
		Step 9: System then saves the updated information in the schedule table
		Step 10: System then displays the updated schedule.
ALTERNATE COURSES:	ALT Step 8: The entered information is invalid. The system displays an error message stating that the format is incorrect and returns to step 6	
CONCLUSION:	The schedule details have been entered and stored on the system	
POST-CONDITION:	The schedule details are now correctly updated and saved	
BUSINESS RULES	<ul style="list-style-type: none"> • n/a 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • n/a 	
ASSUMPTIONS:	<ul style="list-style-type: none"> • n/a 	
OPEN ISSUES:	n/a	

USE CASE NAME:	View Schedule	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	10.3	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Booking Consultant	
PRIMARY SYSTEM ACTOR	Booking Consultant	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This use case describes the event where the consultant selects an option that makes the system displays a schedule of all the bookings that have been made. Allowing the consultant to view bookings that have been made on a specific day, month and/or year.	
PRE-CONDITION:	Consultant is logged onto the system	
TRIGGER:	Consultant wants to view bookings that have been made	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: Consultant wants to view bookings that have been made	Step 2: The system displays the schedule allowing the consultant to choose a date or search for a specific date.
	Step 3: Consultant clicks on the chosen date he/she wants to view	Step 4: System displays all bookings that have been made on the specific date chosen. The following information will be displayed from the Schedule table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • ContactPerson_ID • DestinationLocation • TripDuration
	Step 5: The consultant chooses the booking in which he/she wants to view	Step 6: System displays the bookings chosen by the consultant. The following information will be displayed from the Schedule table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • ContactPerson_ID

		<ul style="list-style-type: none"> DestinationLocation TripDuration
ALTERNATE COURSES:	ALT Step 3: Consultant enters the date which he/she wants to view. The following details are entered <ul style="list-style-type: none"> Day Month Year 	
CONCLUSION:	A booking has been displayed	
POST-CONDITION:		
BUSINESS RULES	<ul style="list-style-type: none"> n/a 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> n/a 	
ASSUMPTIONS:	<ul style="list-style-type: none"> n/a 	
OPEN ISSUES:	n/a	

USE CASE NAME:	Generate Bookings Report	USE CASE TYPE Business Requirements:❑ System Analysis: x System Design:❑
USE CASE ID:	11.1	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Operational Manager	
PRIMARY SYSTEM ACTOR	n/a	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This Use case describes an event where a Booking Report is generated based on two criteria. One being the list of all bookings made by a certain client. Second being A list generated to list all bookings made in a certain month of a certain year	
PRE-CONDITION:	Operational Manager must be logged on to the system	
TRIGGER:	Manager requests for a report	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1:Operational manager Requests to Create a Booking	Step 2: System shows all the reports the manager will be able to generate: <ul style="list-style-type: none">• Generate Bookings• Generate Vehicle Report
	Step 3: Manager chooses to choose the booking report generator.	Step 4: System shows him the two options of the kind of reports he can choose from. Whether he will search by client or search by date.
		Step 5: System requires manger to enter a Surname or Date
	Step 6: Operational manager searches client by Surname or Date	Step 7: System uses the information entered by client and reads the Booking Table
		Step 8: Once client is found system returns list of all bookings made by client searched from the Booking Table. The system will return the following details: Client_ID Client_Surname Booking_Date Pickup-Location DropOff-location

	Step 9: After report is generated Operational Manger can now choose to download the returned results into a pdf document.	
ALTERNATE COURSES:	ALT Step 8: System could not find a booking and displays the error message to the Operational Manager	
CONCLUSION:	A booking report is generated	
POST-CONDITION:		
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	• The “To Date” must not be a date after the current date.	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Mpho Mosotho	Date: 04-22-2019	Version: 2

USE CASE NAME:	Generate Vehicle Report	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	11.2	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Operational Manager	
PRIMARY SYSTEM ACTOR	n/a	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This Use case describes an event where a Vehicle Report is generated based on two criteria. One being the list of all bookings made by a certain client. Second being A list generated to list all bookings made in a certain month of a certain year	
PRE-CONDITION:	Operational Manager must be logged on to the system	
TRIGGER:	Manager requests for a report	

TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: Operational manager Requests to Create a Booking	Step 2: System shows all the reports the manager will be able to generate: <ul style="list-style-type: none"> Generate Bookings Generate Vehicle Report
	Step 3: Manager chooses to choose the Vehicle report generator.	Step 4: System shows him the two options of the kind of reports he can choose from. Whether he will search by client or search by date.
		Step 5: System requires manger to enter a Surname or Date
	Step 6: Operational manager searches client by Surname or Date	Step 7: System uses the information entered by client and reads the Booking Table
		Step 8: Once client is found system returns list of all bookings made by client searched from the Booking Table. The system will return the following details: Client_ID Client_Surname Booking_Date Pickup-Location DropOff-location
	Step 9: After report is generated Operational Manger can now choose to download the returned results into a pdf document.	
ALTERNATE COURSES:	ALT Step 8: System could not find a booking and displays the error message to the Operational Manager	
CONCLUSION:	A Vehicle report is generated	
POST-CONDITION:		
BUSINESS RULES	<ul style="list-style-type: none"> 	

IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•
ASSUMPTIONS:	•
OPEN ISSUES:	

Siyaya Travel Assist	
Author (s): Mpho Mosotho	Date: 04-22-2019
	Version: 2

USE CASE NAME:	Generate Mileage Report		USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	11.3		
PRIORITY:	Medium		
SOURCE:	Requirement List		
PRIMARY BUSINESS ACTOR	Operational Manager		
PRIMARY SYSTEM ACTOR	Operational Manager		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">		
DESCRIPTION:	This use case describes the event where a manager requests the mileage report from the system. The system generates the report by retrieving information matching certain criteria. The report is then saved to a database. This use case concludes with the report being saved to the system.		
PRE-CONDITION:	The manager must be logged in.		
TRIGGER:	The manager wants to generate the mileage report		
TYPICAL COURSE OF EVENTS:	Actor Action		System Response
	Step 1: The manager selects the generate the mileage report.		Step 2: The system displays the mileage generation report screen.
	Step 3: The manager enters the requested report criteria based on the following options: <ul style="list-style-type: none">Vehicle_IDDistanceTravelled		Step 4: The system reads the entered report criteria information used for the report.
			Step 4: System retrieves the information and returns of all vehicles that match the input criteria From the Vehicle Maintenance Table
			Step 5: System the generates the Mileage report
			Step 6: System stores the report in the documents table
			Step 7: System displays a confirmation message to the manager

ALTERNATE COURSES:	<p>ALT Step 5: Once the report generation is completed, no information is displayed as no data matched the report criteria. Error notification is sent to the manager stating there were no matches and requests the manager to re-enter the report criteria.</p> <ul style="list-style-type: none"> Return to step 3. 	
CONCLUSION:	The report is generated	
POST-CONDITION:	The complete report is generated and stored	
BUSINESS RULES	<ul style="list-style-type: none"> 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> 	
ASSUMPTIONS:	<ul style="list-style-type: none"> 	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Mpho Mosotho		Date: 04-22-2019
		Version: 2

USE CASE NAME:	Schedule Vehicle Maintenance	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	12.1	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Operational Manager	
PRIMARY SYSTEM ACTOR	n/a	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">	
DESCRIPTION:	This use case describes the event where vehicle maintenance is added to the schedule. The manager will add to the schedule by providing all the necessary details, allowing the system to validate the input information and save it to a database. The use case concludes with the new maintenance or maintenance appointment being saved to the system.	

PRE-CONDITION:	The vehicle maintenance must not currently be in the schedule. The manager must be logged onto the system.	
TRIGGER:	Manager requests to add a vehicle on the Maintenance schedule	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: Operational manager Requests to add a vehicle to the maintenance schedule	Step 2: The system requests that the manager inputs the required information for a new vehicle maintenance <ul style="list-style-type: none"> Vehicle_ID Vehicle_LicseneceNumber DateTime ServiceProvider_ID DistanceTraveled
	Step 3: Manager inputs the maintenance details: <ul style="list-style-type: none"> Vehicle_ID Vehicle_LicseneceNumber DateTime ServiceProvider_ID DistanceTraveled 	Step 4: System reads the entered maintenance details
		Step 5: System validates the format for the entered details
		Step 6: System retrieves the last schedule number and increments it by one
		Step 7: The system stores the maintenance details in the Vehicle_Maintenance Table with its new unique number
		Step 9: The System sends the manager a confirmation message
ALTERNATE COURSES:	ALT Step 6: The entered information is invalid. The system displays an error message stating that the formatting is incorrect and asks the user to re-enter the information in a valid format. <ul style="list-style-type: none"> Return to step 3. 	
CONCLUSION:	The maintenance has been added to the maintenance schedule	
POST-CONDITION:		
BUSINESS RULES	<ul style="list-style-type: none"> 	

IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•
ASSUMPTIONS:	•
OPEN ISSUES:	

Siyaya Travel Assist	
Author (s): Mpho Mosotho	Date: 04-22-2019 Version: 2

USE CASE NAME:	Update Vehicle Maintenance Schedule	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis: <input checked="" type="checkbox"/> System Design: <input type="checkbox"/>
USE CASE ID:	12.2	
PRIORITY:	Medium	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Operational Manager	
PRIMARY SYSTEM ACTOR	n/a	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This use case describes the event where a Manager wants to update the details of maintenance that are already registered and entered onto the system as well as in the Maintenance Schedule table in the database, this may be due to outdated or incorrect information that was entered. The manager may also remove maintenance / maintenance appointment if necessary. The use case concludes with the system updating the required details on the system.	
PRE-CONDITION:	The manager must be logged onto the system.	
TRIGGER:	Schedule details need to be updated or removed	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1:Operational manager Requests to update or remove the details on the schedule using the system	Step 2: The System displays the update schedule menus
	Step 3: Manager selects the search schedule option	Step 4: System invokes use case 12.3 - “View Vehicle Maintenance schedule”
		Step 5: Step 5: The system displays all the maintenance details that is currently on the schedule, with the following details that can be edited: <ul style="list-style-type: none">• Vehicle_ID• Vehicle_LicseneceNumber• DateTime• ServiceProvider_ID

		<ul style="list-style-type: none"> DistanceTraveled
	Step 6: Manager enters all the relevant details that need to be updated and saves them	Step 7: The system reads the updated details entered by the user
		Step 8: The System validates the format of the updated information entered by the Manager
		Step 9: The System saves the edited schedule details in the Maintenance schedule table
		Step 10: The system displays the updated schedule details and notifies the Manager of the changes
ALTERNATE COURSES:	<p>ALT Step 6: The user selects the remove vehicle procedure to be processed. The system prompts</p> <p>The system prompts the user with a confirmation message asking if the user really wants to remove the maintenance / maintenance appointment from the schedule.</p> <p>ALT Step 6: The manager does not confirm removal.</p> <ul style="list-style-type: none"> Return to step 5. <p>The system removes the maintenance / maintenance appointment from the schedule.</p> <ul style="list-style-type: none"> Continue to step 11 	
	<p>ALT Step 9: The details are invalid; an error message is displayed telling the user that the format is invalid.</p> <ul style="list-style-type: none"> Return to step 6. 	
CONCLUSION:	The schedule details have been entered and stored on the system or removed where necessary.	
POST-CONDITION:	The schedule details are now correctly stored on the system ensuring all functions relating to the schedule are handled correctly.	
BUSINESS RULES	•	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	•	
ASSUMPTIONS:	•	
OPEN ISSUES:		

Siyaya Travel Assist

Author (s): Mpho Mosotho

Date: 04-22-2019

Version: 2

USE CASE NAME:	View Vehicle Maintenance Schedule	USE CASE TYPE Business Requirements: <input type="checkbox"/> System Analysis's : X System Design: <input type="checkbox"/>
USE CASE ID:	12.3	
PRIORITY:	High	
SOURCE:	Requirement List	
PRIMARY BUSINESS ACTOR	Operational Manager	
PRIMARY SYSTEM ACTOR	n/a	
OTHER PARTICIPATING ACTORS:	•	
OTHER INTERESTED STAKEHOLDERS:	•	
DESCRIPTION:	This use case describes the event where the Operational Manager searches for a vehicle that has been scheduled for maintenance on the system. This will allow the manager to view all details associated with the schedule. The manager enters based on a search criteria where the system will then search for the corresponding vehicle on the schedule	
PRE-CONDITION:	The manager must be logged onto the system.	
TRIGGER:	Manager requests to view Maintenance schedule	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1:Operational manager Requests to search the schedule for a specific vehicle on the schedule	Step 2: The system displays the schedule search menu and requests the search criteria
	Step 3: Manager searches based on the following criteria <ul style="list-style-type: none">• Vehicle_ID• Vehicle_LicseneceNumber• DateTime• ServiceProvider_ID• DistanceTraveled	Step 4: System reads the entered maintenance details
		Step 5: System validates the format for the entered details and searches using criteria provided in the Maintenance schedule table
		Step 6: System displays a list of all scheduled maintenances for that specific vehicle
	Step 7: The manager then selects the specific	Step 8: The system the displays all the information based on the manager's selection:

	scheduled maintenance he/she wishes to see	<ul style="list-style-type: none"> Vehicle_ID Vehicle_LicenseNumber DateTime ServiceProvider_ID DistanceTraveled
ALTERNATE COURSES:	ALT Step 6: Once the search is completed, no information is displayed as no data matched the entered search criteria. An error notification is sent to the manager stating that they need to re-enter the search criteria. <ul style="list-style-type: none"> Return to step 3 	
CONCLUSION:	The vehicle maintenance has been searched	
POST-CONDITION:		
BUSINESS RULES	<ul style="list-style-type: none"> 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> 	
ASSUMPTIONS:	<ul style="list-style-type: none"> 	
OPEN ISSUES:		

Siyaya Travel Assist		
Author (s): Mninikhaya Mavundla		Date: 04-22-2019
		Version: 2

USE CASE NAME:	Add New Location		USE CASE TYPE	
USE CASE ID:	13.1		Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>	
PRIORITY:	High			
SOURCE:	Ndila Transfers			
PRIMARY SYSTEM ACTOR	Booking consultant			
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None			

OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	<p>The booking consultant wants to add a new location to the system. The system prompts the Consultant to enter all relevant information. The system must allow user to add a new location with details of the location such as Country, Province, City, town/Suburb, Street Number and name. The consultant enters all requested details, the system then captures, validates and stores all information regarding the new location.</p>	
PRE-CONDITION:	<ul style="list-style-type: none"> The consultant must be logged into the system. The added new location must not already exist on the system 	
TRIGGER:	The booking consultant wants to add a new location to the system	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	<p>Step 1: The booking consultant wants to add a new location to the system</p>	<ul style="list-style-type: none"> Step 2: The system requests details of the location such as Location name [Location_name] Province name [Province_name] City [City_Name] Suburb [Suburb_name] Street [Street_name] LocationType [Locationtype]
	<p>Step 3: The booking consultant enters requested details of the all new relevant details requested in Step 2.</p>	
	<p>Step 4: The Consultant selects the option save details.</p>	<p>Step 5: The system prompts the Consultant to confirm details.</p>
	<p>Step 6: The Consultant selects to confirm details.</p>	<p>Step 7: The system captures and validates the input data. Validation includes:</p> <ul style="list-style-type: none"> Location Name – cannot be null Province Name – cannot be null City Name – cannot be null Suburb Name – cannot be null street Name – cannot be null
		<p>Step 8: The system does not detect duplicates of Location being added.</p>

		Step 9: The system generates a unique Land ID [LocationID] by adding 1 to the last [LocationID] found in the Location table.
		Step 10: The system creates and stores the validated information for the Location in the Location table using the captured details in Step 7 and generated Unique ID in Step 9.
		Step 11: The system creates and stores a new audit entry with the following details: <ul style="list-style-type: none"> • Audit ID (Generated) [AuditID] • Audit Type ID [AuditTypeID] (Retrieved from the AuditType Table) • Audit Reference Table [AuditRefTable] (Table where transaction was performed) • Employee ID [EmployeeID] (Person initiating the transaction) – Retrieved from the Employee Table
		Step 12: The system displays a confirmation message stating that the new location has successfully been added to the system.
ALTERNATE COURSES:	[ALT] Step 6: The consultant revokes the decision to confirm details and selects the option to cancel the confirmation. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 7: The system fails to pass validation checks for input data. The system displays an error message stating which fields need attention. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 8: The system detects a duplicate Land already on the system with the same [locationName] <input type="checkbox"/> The system displays an error message. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 9: The system fails to find a [LocationID] in the Location Table. System initializes the [LocationID] with 1. <input type="checkbox"/> Continue to Step 10 .	
CONCLUSION:	The system captures the details of the new location and saves it in a database	
POST-CONDITION:	<ul style="list-style-type: none"> • The new location should be added to the systems database for later use. • The transaction details are saved in the Audit Table. 	
BUSINESS RULES	<ul style="list-style-type: none"> • None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> • None 	
OPEN ISSUES:	None	

USE CASE NAME:	Update location	USE CASE TYPE
USE CASE ID:	13.2	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	Booking consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	The booking consultant wants to update a location. They select the Update location option and selects location they want to update. The system updates the location information.	
PRE-CONDITION:	Location must exist in the systems database	
TRIGGER:	The booking consultant wants to update a location	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant wants to update a location and selects the location in given options	Step 2: The system retrieves the information of the location and displays it for the booking consultant
	Step 3: The booking consultant enters the information they want to change on the existing location	Step 4: The system verifies the new information entered
		Step 5: The system saves the changes made to the location table and the status of the location is updated.
ALTERNATE COURSES:	None	
CONCLUSION:	The system updates the information of the selected location	
POST-CONDITION:	The location information has to be correct	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> None 	
OPEN ISSUES:	None	

Siyaya Travel Assist

Author (s): Mavundla Mninikhaya

Date: 04-22-2019

Version: 2

USE CASE NAME:	Search Location	USE CASE TYPE
USE CASE ID:	13.2	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	The booking consultant uses the location name to search and retrieve the details of the location from the location table in the database.	
PRE-CONDITION:	The location has to be in the systems database	
TRIGGER:	The booking consultant enters the location name to search and retrieve the details on the system	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant enters the location name to search on the system	Step 2: The system verifies the location name received.
		Step 3: The system compares the location name received with the location name hat are in the location table until a match is found
		Step 4: The system retrieves the location details such as Country, Province, City, town/Suburb, Street Number and name given and displays it.
ALTERNATE COURSES:	Alt step 2: The Location name given does not meet the system requirements. The booking consultant has to type the correct Location name.	
	Alt step 3: The system cannot find a match for Location name given and sends an error message. "no results found"	
CONCLUSION:	The system retrieves the information related to the location name given	
POST-CONDITION:	The location information searched has to be displayed for the booking consultant	
BUSINESS RULES	<ul style="list-style-type: none"> None 	

IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> None
OPEN ISSUES:	None

Siyaya Travel Assist	
Author (s): Mavundla Mnikhaya	Date: 04-22-2019 Version: 2

USE CASE NAME:	Add Zone	USE CASE TYPE
USE CASE ID:	14.1	Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
PRIORITY:	High	
SOURCE:	Ndila Transfers	
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	Booking consultant	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">None	
DESCRIPTION:	The booking consultant wants to add a zone onto the system database. They retrieve all the relevant information and a new zone and it is saved onto the system database.	
PRE-CONDITION:	The Zone rate cannot be an existing vehicle group in the system	
TRIGGER:	The booking consultant wants to add another vehicle group	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant wants to add a zone rate and selects the Add Zone option.	Step 2: The system displays the zone details from the Zone table: <ul style="list-style-type: none">Zone Id [Zone_ID]Zone name [Zone_name]Zone range [zone_range]
	Step 3: The booking consultant adds the necessary details of the new Zone rate such as name and	Step 4: The system verifies the information gathered

	range in kilometres Step 2	
	Step 4: The Consultant selects the option save details.	Step 5: The system prompts the Consultant to confirm details.
	Step 6: The Consultant selects to confirm details. [ALT]	Step 7: The system captures updated details for Zone and validates input data. Validation includes. <ul style="list-style-type: none"> • Zone _name—cannot be null, must be in string • Zone _range—cannot be null, must be in number [ALT]
		Step 8: The system does not detect duplicates of Zone being added. [ALT]
		Step 9: The system generates a unique Zone ID [ZoneID] by adding 1 to the last [ZoneID] found in the Zone table. [ALT]
		Step 10: The system creates and stores the validated information for the Zone in the zone table using the captured details in Step 7 and generated UniqueID in Step 9 .
		Step 11: The system creates and stores a new audit entry with the following details: <ul style="list-style-type: none"> • Audit ID (Generated) [AuditID] • Audit Type ID [AuditTypeID] (Retrieved from the AuditType Table) • Audit Reference Table [AuditRefTable] (Table where transaction was performed) • Employee ID [EmployeeID] (Person initiating the transaction) – Retrieved from the Employee Table
		Step 12: The system displays a confirmation message stating that the new Zone has successfully been added to the system.
ALTERNATE COURSES:	[ALT] Step 6: The consultant revokes the decision to confirm details and selects the option to cancel the confirmation. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 7: The system fails to pass validation checks for input data. The system displays an error message stating which fields need attention. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 8: The system detects a duplicate Zone already on the system with the same [ZoneName] <input type="checkbox"/> The system displays an error message. <input type="checkbox"/> Return to Step 2 .	
	[ALT] Step 9: The system fails to find a [ZoneID] in the Zone Table. System initializes the [ZoneID] with 1.	

	<input type="checkbox"/> Continue to Step10.
CONCLUSION:	A zone rate is added onto the system database
POST-CONDITION:	<ul style="list-style-type: none"> The zone rate information has to be complete The transaction details are saved in the Audit Table.
BUSINESS RULES	<ul style="list-style-type: none"> None
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> None
OPEN ISSUES:	None

Siyaya Travel Assist	
Author (s): Mavundla Mninikhaya	Date: 04-22-2019 Version: 2

USE CASE NAME:	Search Zone	USE CASE TYPE
USE CASE ID:	14.2	Business Requirements: <input type="checkbox"/>
PRIORITY:	High	System Analysis: <input type="checkbox"/>
SOURCE:	Ndila Transfers	System Design: <input type="checkbox"/>
PRIMARY BUSINESS ACTOR	Booking consultant	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> None 	
DESCRIPTION:	The booking consultant uses the Zone name to search and retrieve the details of the Zone from the Zone table in the database.	
PRE-CONDITION:	The Zone has to be in the systems database	
TRIGGER:	The booking consultant enters the Zone name to search and retrieve the details on the system	
TYPICAL COURSE OF EVENTS:	Actor Action	System Response
	Step 1: The booking consultant enters the Zone name to search on the system	Step 2: The system verifies the Zone name received.
		Step 3: The system compares the Zone name received with the Zone name that are in the Zone table until a match is found
		Step 4: The system retrieves the Zone. details such as price and range in kilometres
ALTERNATE COURSES:	Alt step 2: The Zone name given does not meet the system requirements. The booking consultant has to type the correct Zone name.	
	Alt step 3: The system cannot find a match for Zone name given and sends an error message. "no results found"	

CONCLUSION:	The system retrieves the information related to the Zone name given
POST-CONDITION:	The Zone information searched has to be displayed for the booking consultant
BUSINESS RULES	<ul style="list-style-type: none"> None
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> None
OPEN ISSUES:	None

Siyaya Travel Assist

Author (s): Mavundla Mnikhaya

Date: 04-22-2019

Version: 2

USE CASE NAME:	Update Zone	USE CASE TYPE	
USE CASE ID:	14.3	Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>	
PRIORITY:	High		
SOURCE:	Ndila Transfers		
PRIMARY BUSINESS ACTOR	Booking consultant		
PRIMARY SYSTEM ACTOR	Booking consultant		
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none">None		
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none">None		
DESCRIPTION:	This use case describes the event The booking consultant wants to update a zone rate. They select the Update Zone rate option and selects the zone they want to update. The system prompts the Consultant to enter updated details for the Zone. The system then captures, validates and stores updated information The system updates the Zone information.		
PRE-CONDITION:	<ul style="list-style-type: none">Zone must exist in the systems databaseThe booking consultant must be logged into the system.		
TRIGGER:	The booking consultant wants to update a zone		
TYPICAL COURSE	Actor Action	System Response	
	Step 1: The booking consultant wants to update a zone	Step 2. The system Invokes Use Case 13.3 “Search zone”	
OF EVENTS:	Step 3: The booking consultant enters the information they want to change on the existing zone in the search box.	Step 4: The system retrieves the information of the Zone and displays it for the booking consultant from the zone table to be updated: <ul style="list-style-type: none">Zone Id [Zone_ID]Zone name [Zone_name]Zone range [zone_range]	

	Step 5: The booking consultant enters the information they want to change on the existing Zone	Step 6: The system verifies the new information entered and confirms with the booking consultant.
	Step 7: The Consultant selects to confirm changes to be updated for the Zone. [ALT]	Step 8: The system captures updated details for location and validates input data. Validation includes. <ul style="list-style-type: none"> • Zone _name—cannot be null, must be in string • Zone _range—cannot be null, must be in number [ALT]
		Step 9: The system creates and stores a new audit entry with the following details: <ul style="list-style-type: none"> • Audit ID (Generated) [AuditID] • Audit Type ID [AuditTypeID] (Retrieved from the AuditType Table) • Audit Reference Table [AuditRefTable] (Table where transaction was performed) • Employee ID [EmployeeID] (Person initiating the transaction) – Retrieved from the Employee Table •
		Step 10: The system saves the changes made to the Zone table and the status of the zone is updated.
ALTERNATE COURSES:	[ALT] Step 7: The Consultant selects to cancel changes made to the location details. ➤ Return to Step 3 . [ALT] Step 8: The system is unable to validate the details entered and displays an invalid details provided error message. Return to Step 3 .	
CONCLUSION:	<ul style="list-style-type: none"> • The system updates the information of the selected Zone • The transaction details are saved in the Audit Table. 	
POST-CONDITION:	The Zone information has to be correct	
BUSINESS RULES	<ul style="list-style-type: none"> • None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> • None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> • None 	
OPEN ISSUES:	None	

USE CASE NAME:	Remove Zone	USE CASE TYPE
USE CASE ID:	14.4	Business Requirements: <input type="checkbox"/> System Analysis: <input type="checkbox"/> System Design: <input type="checkbox"/>
PRIORITY:	High	
SOURCE:		
PRIMARY BUSINESS ACTOR	Manager	
PRIMARY SYSTEM ACTOR	None	
OTHER PARTICIPATING ACTORS:	<ul style="list-style-type: none"> None 	
OTHER INTERESTED STAKEHOLDERS:	<ul style="list-style-type: none"> Owner 	
DESCRIPTION:	This use case describes the events where a manager would like to remove a Zone from being used for any new transactions. This involves the manager selecting the zone to remove and confirming that the zone should not be accessible any longer.	
PRE-CONDITION:	The Zone should already exist in the system database The Consultant Owner must be logged into the system	
TRIGGER:	Manager/Owner wants to remove a zone	
TYPICAL COURSE	Actor Action	System Response
	Step 1: The manager Owner requests to remove a Location from the system selects the 'remove Zone option	Step 2: System checks to see if the manager has authority to remove a Zone[ALT]
OF EVENTS:		Step 3: The system invokes U.C 14.3 "Search Zone".
	Step 4: The booking consultant enters the location name to search on the system	Step 5: System then displays all the Zones matches in the database[ALT]
		Step 6: System prompts the manager to select the Zone they wish to remove
	Step 7: Manager selects the Zone they would like to remove	Step 8: System requests confirmation that the selected Zone is the correct one to be removed
	Step 9: Manager confirms that they want to remove the selected Zone[ALT]	Step 10: System then disables and removes the selected the Zone to be used again in the database.
		Step 11: The system creates and stores a new audit entry with the following details:

		<ul style="list-style-type: none"> Audit ID (Generated) [AuditID] Audit Type ID [AuditTypeID] (Retrieved from the Audit Type Table) Audit Reference Table [AuditRefTable] (Table where transaction was performed) Employee ID [EmployeeID] (Person initiating the transaction) – Retrieved from the Employee Table
		Step 12: System then displays a confirmation message to let the manager that the removal has been successful
ALTERNATE COURSES:	[Alt Step 2]: System finds the manager to not have authority to remove a Zone. Terminates use case	
	[Alt] step 5: The Zone name given does not meet the system requirements or any matches ➤ Return to Step 4.	
	[ALT] Step 9: The Consultant revokes the decision to confirm details and selects the option to cancel the confirmation. ➤ Return to Step 4.	
CONCLUSION:	The manager selected Zone has successfully been removed from the system	
POST-CONDITION:	Zone has been removed from the system.	
BUSINESS RULES	<ul style="list-style-type: none"> None 	
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS	<ul style="list-style-type: none"> None 	
ASSUMPTIONS:	<ul style="list-style-type: none"> Zone already exists in the system database 	
OPEN ISSUES:	None	

Siyaya Travel Assist

Author (s): Mavundla Mninikhaya

Date: 04-22-2019

Version: 2

USE CASENAME:	Generate Quote		USE CASE TYPE
USE CASE ID:	15.1		BusinessRequirements:☐ SystemAnalysis:☐ SystemDesign:☐
PRIORITY:	High		
SOURCE:	Requirements Description & Detail		
PRIMARY BUSINESS ACTOR:	The booking Consultant		
PRIMARY SYSTEM ACTOR:	None		
OTHER PARTICIPATING ACTORS:	None		
OTHER INTERESTED STAKEHOLDERS:	None		

DESCRIPTION:	This use case describes the process of a Consultant generating a Quote. The use case starts with the Consultant selecting to generate a Quote, it continues with the Consultant entering the dates for the Quote, and the system generating the Quote. The use case concludes when the Quote is generated and displayed.	
PRE-CONDITION:	<ul style="list-style-type: none"> The Consultant needs to be logged in to the system. 	
TRIGGER:	The Consultant selects to generate an Quote .	
TYPICAL COURSE	Actor Action	System Response
OF EVENTS:	Step 1. The Consultant selects to generate a Quote .	Step 2. The system prompts the Consultant to enter the start and end date for the Quotation .
	Step 3. The Consultant provides the start and end date.	Step 4. The system requests details of booking such as, <ul style="list-style-type: none"> Booking_Reference [Booking_Reference]
	Step 5. The Consultant enters details and selects to continue with generating the Quote .	Step 6. The system validates that the dates and details are provided are before the current date. [alt]
		Step 7: The system retrieves the following information for the Quote from the Quote and Booking table: <ul style="list-style-type: none"> The quote reference, [Quote_Reference_No] [Quote] Booking_Reference [Booking_Reference] Quote [Quote_ID] [Payment_status] [Date]
		Step 8. The system notifies the Consultant that the Quote has been generated.
		Step 9. The system displays the generated Quote .
ALTERNATE COURSES:	ALT 6: The entered dates are not before the current date. The system displays a notification and returns to Step 2.	
CONCLUSION:	The use case concludes when an Quote has been created.	
POST-CONDITION:	<ul style="list-style-type: none"> No changes have been made to the system after the Quote has been generated. 	

BUSINESS RULES:	<ul style="list-style-type: none">
IMPLEMENTATION CONSTRAINTS AND SPECIFICATIONS:	<ul style="list-style-type: none"> None
ASSUMPTIONS:	<ul style="list-style-type: none"> None
OPEN ISSUES:	<ul style="list-style-type: none"> There are currently no open issues

CONCLUSION

This section serves an imperative aspect for the Functional Specification document as it gives us an outline of how the various actors interact with the system and how each requirement will be met. The Use Case narratives will be a guide throughout this document as it serves as one of the foundations, allowing stakeholders to understand any business rules or details about any use cases that may seem ambiguous.

3. PROCESS MODELLING

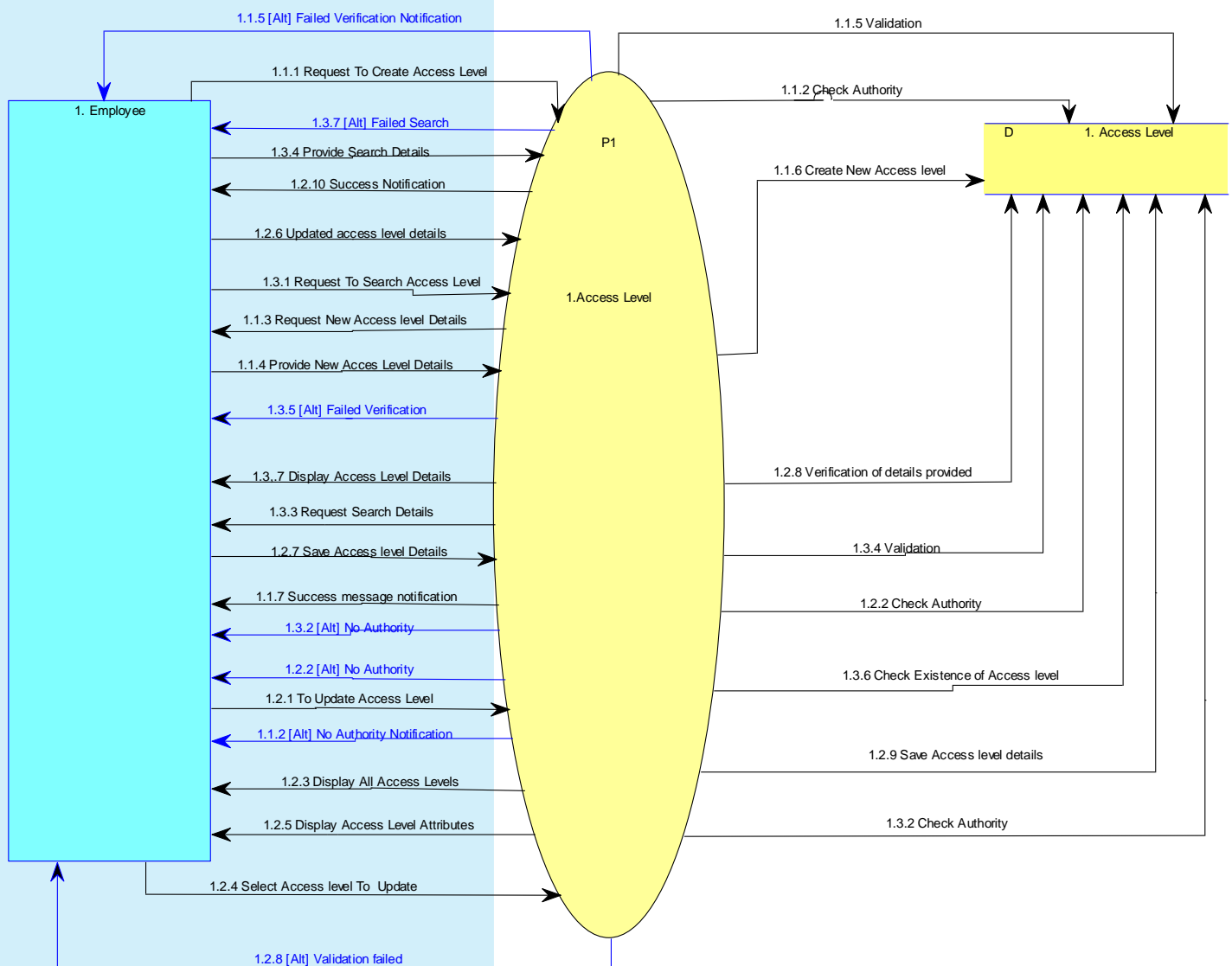
INTRODUCTION

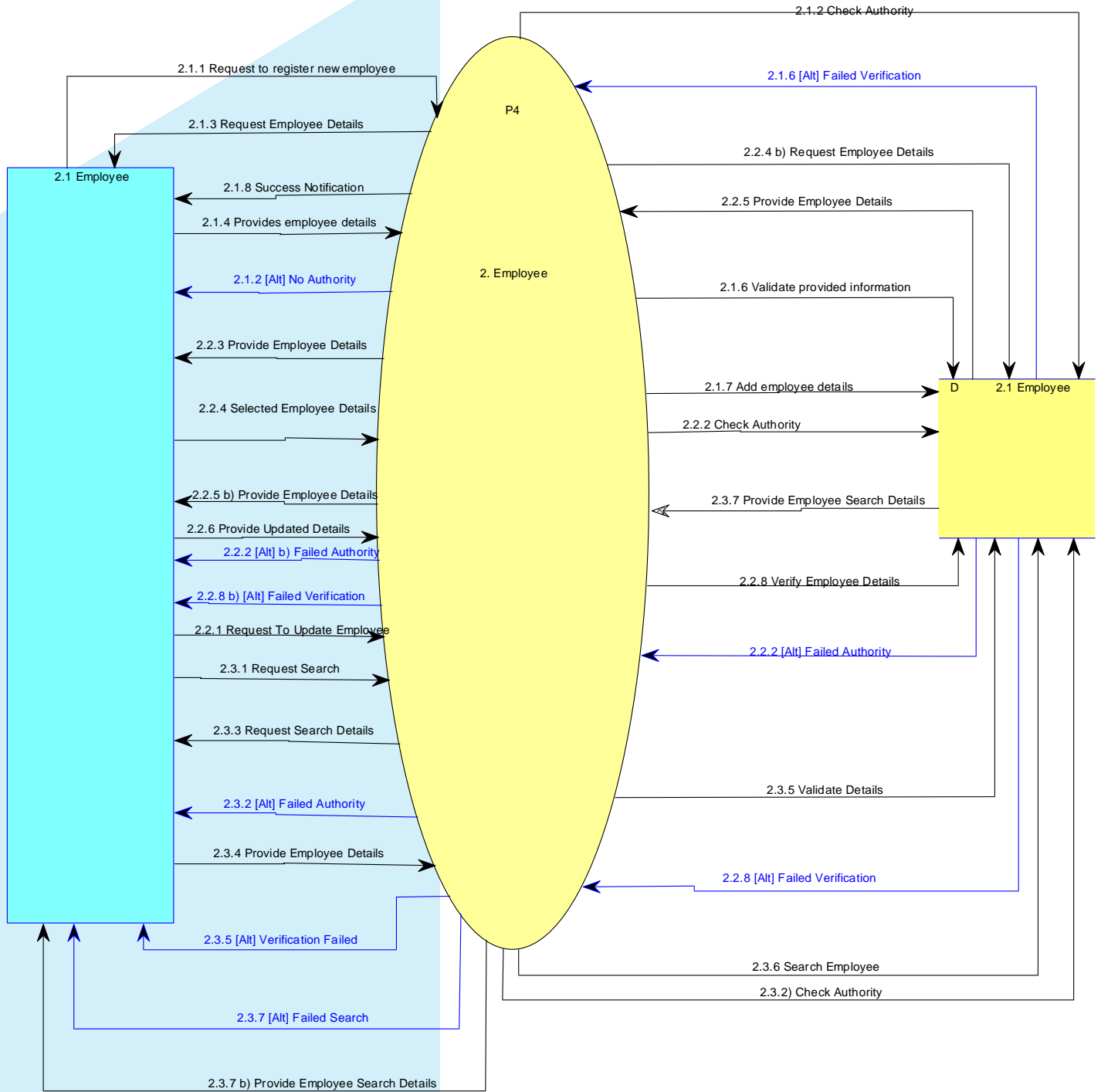
This section is composed of a complete context diagram, functional decomposition diagram, data flow diagrams (high, middle and primitive level) as well as a complete Data Dictionary for the data flow diagrams. These diagrams are laid out to support the logical view of the system.

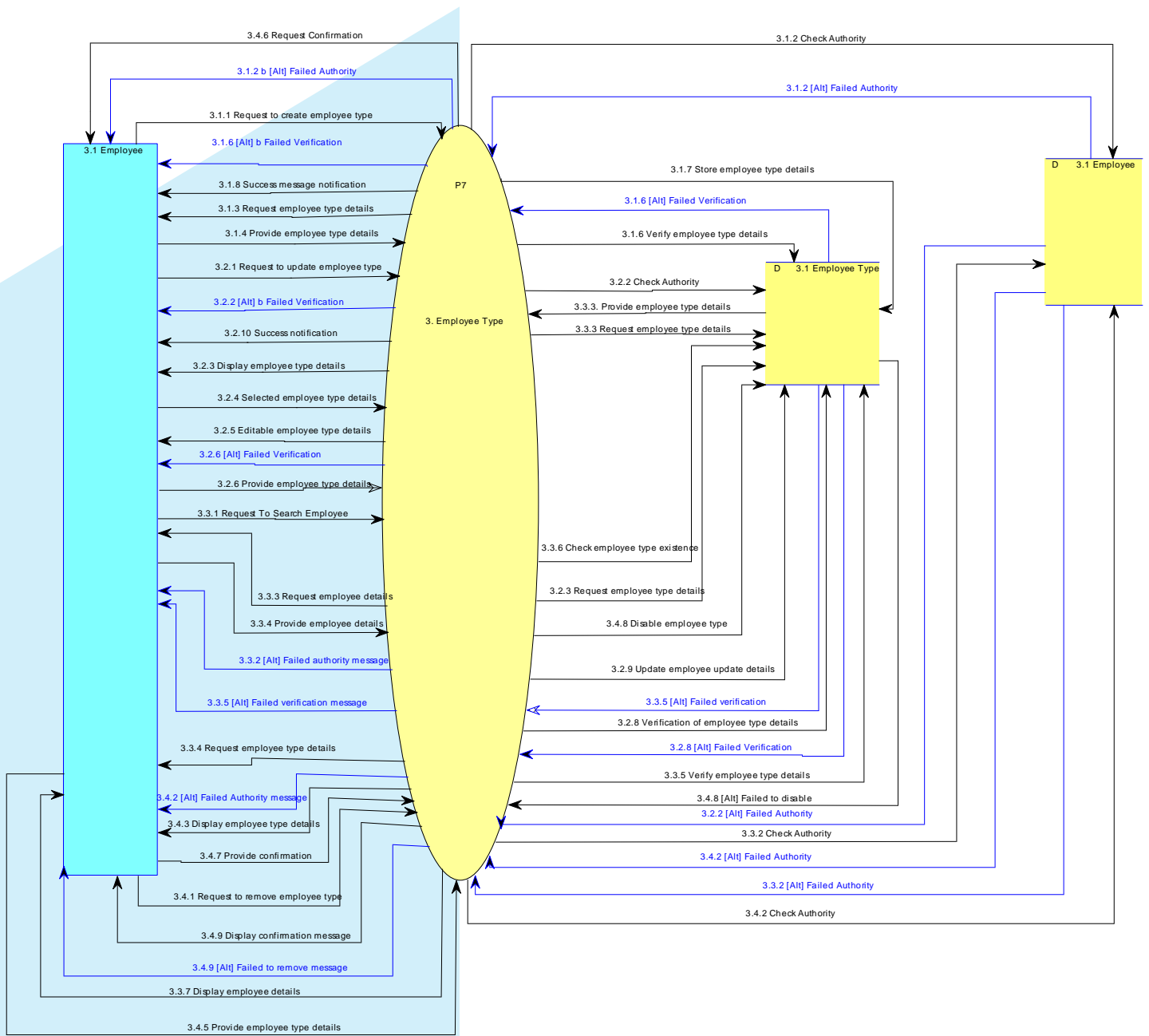
Context Appendix

Functional Appendix

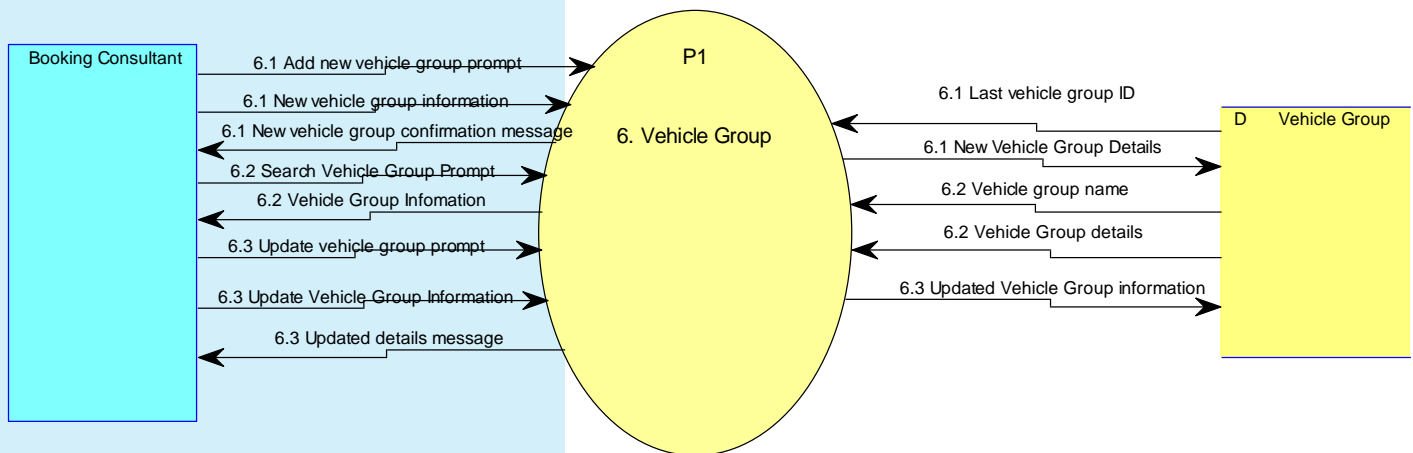
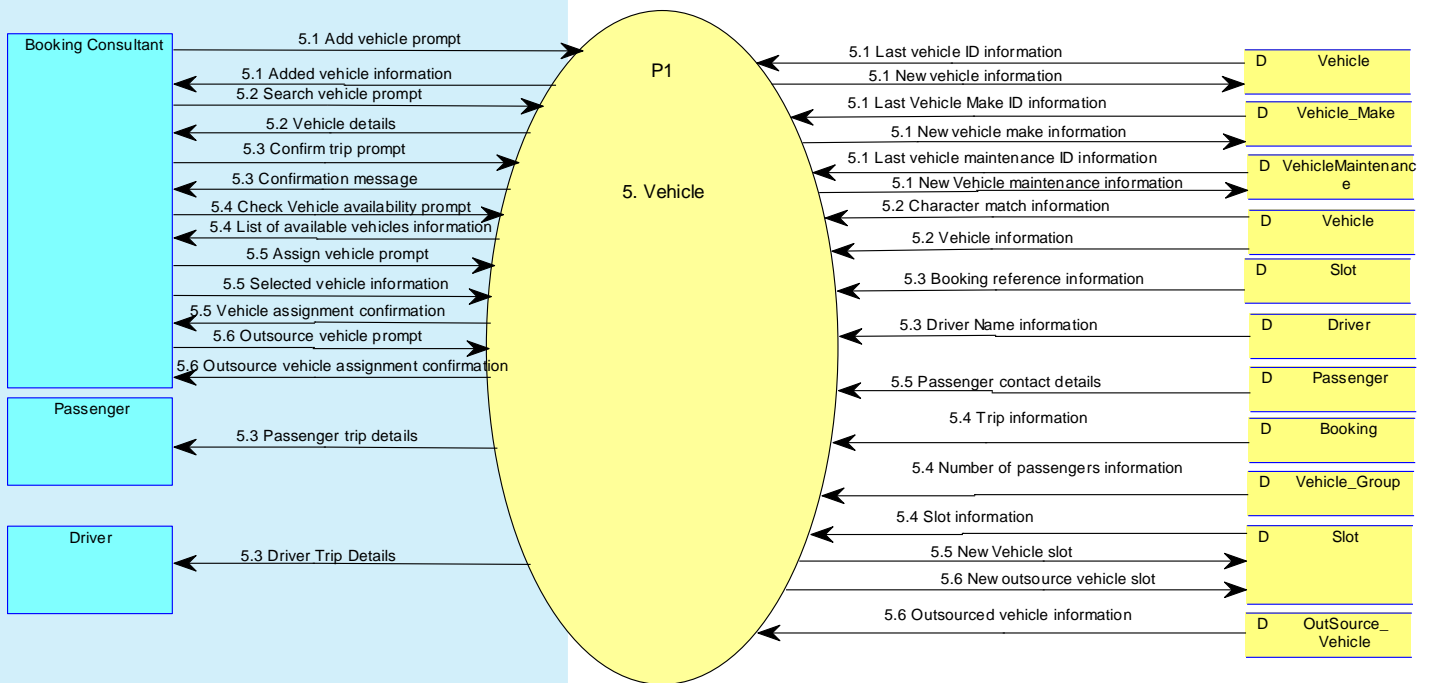
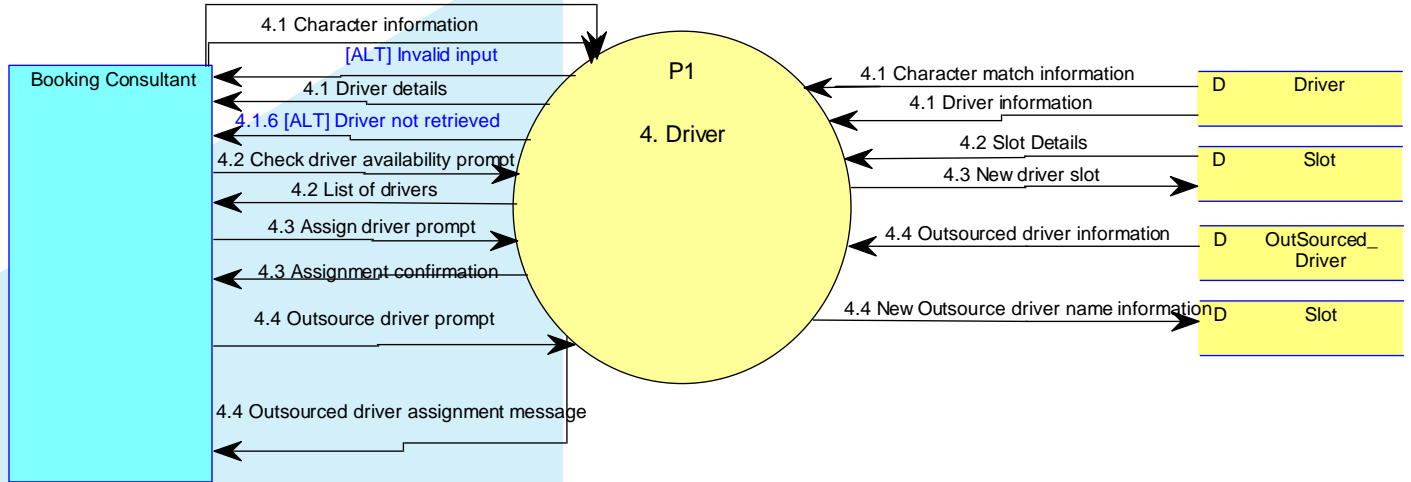
High Levels

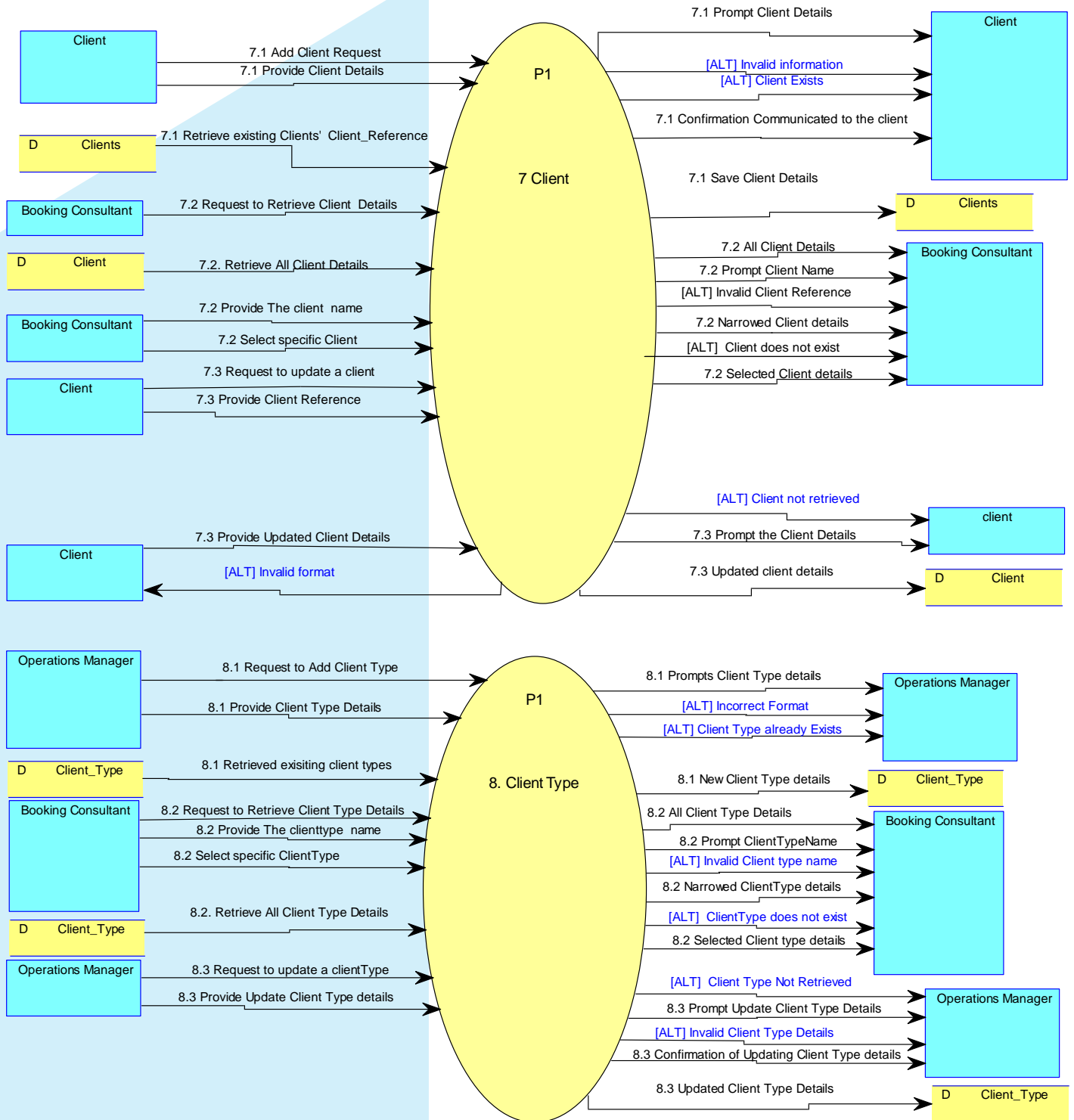


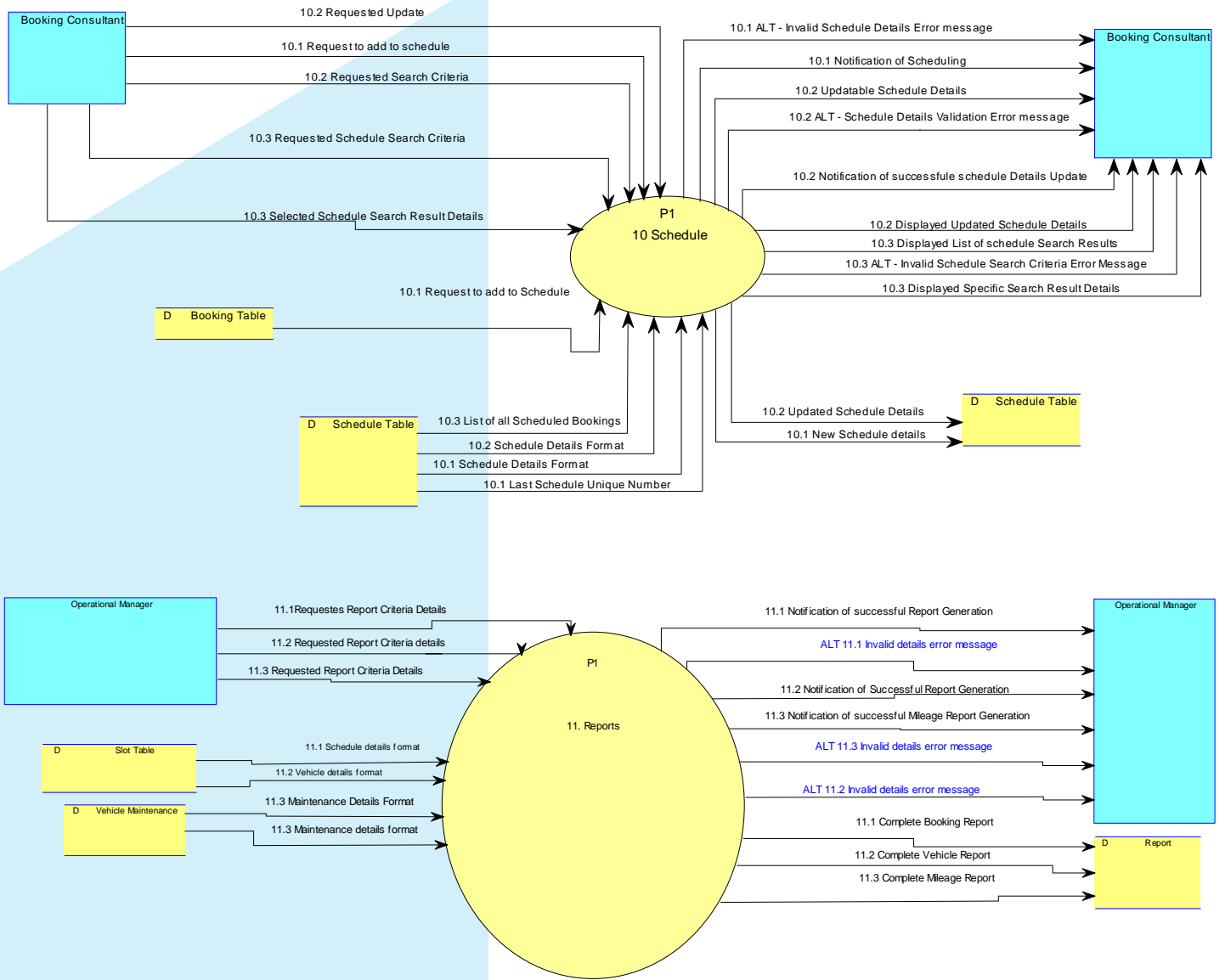


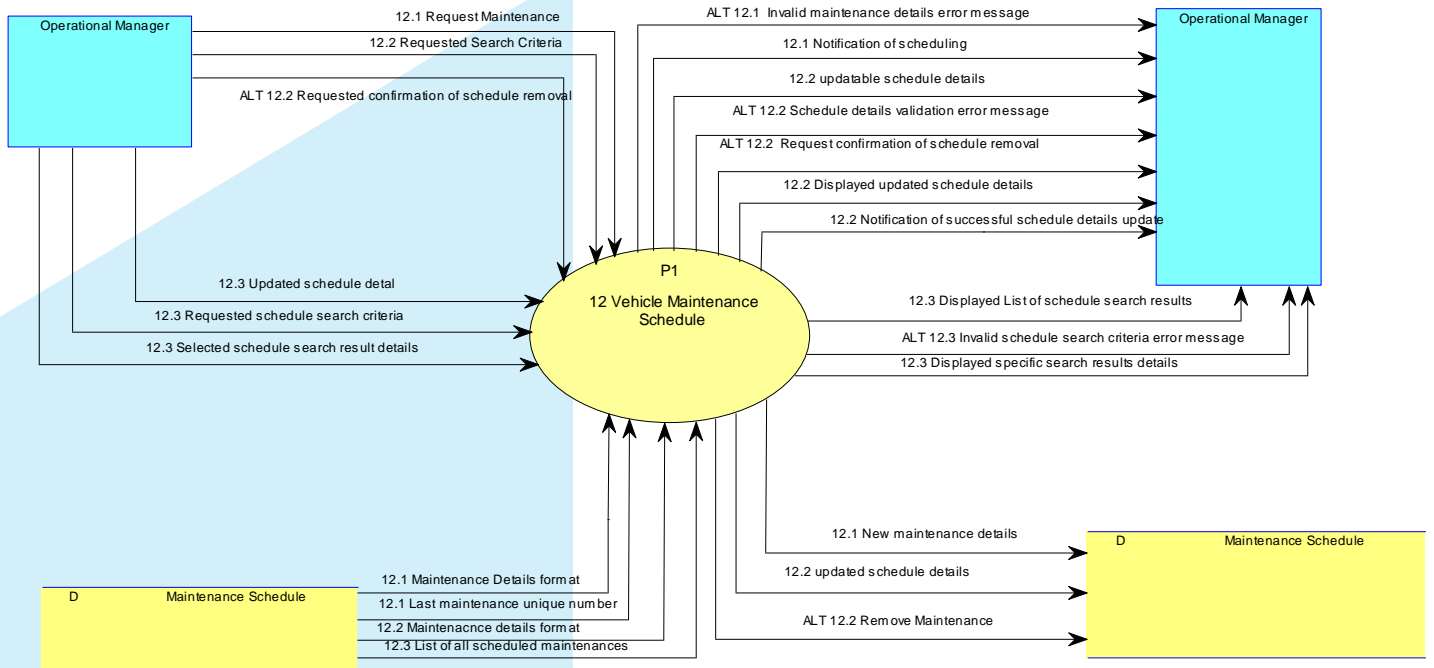


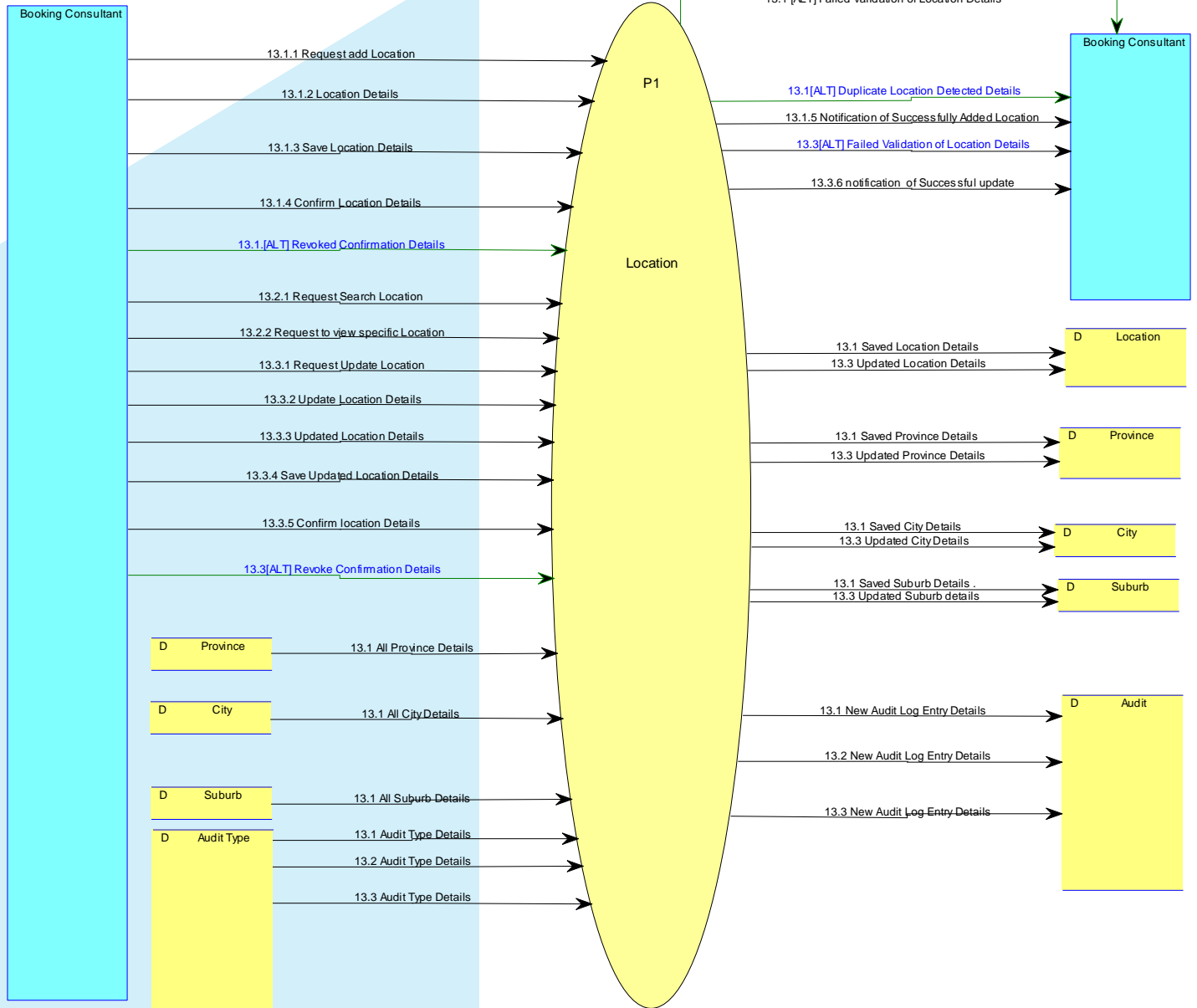
4.1 Search driver prompt

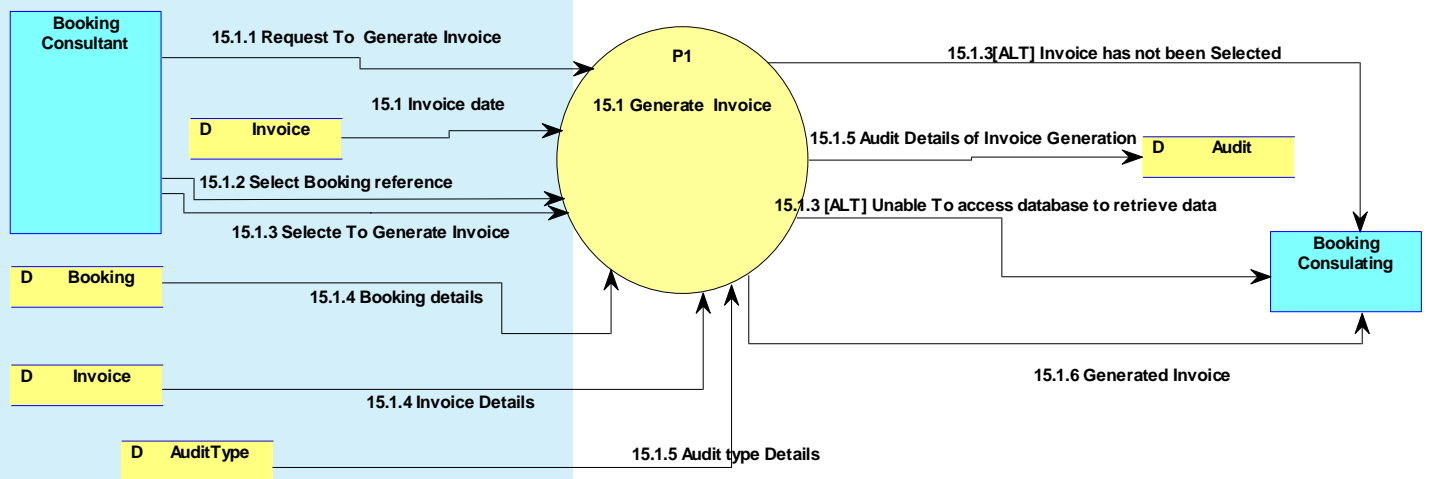
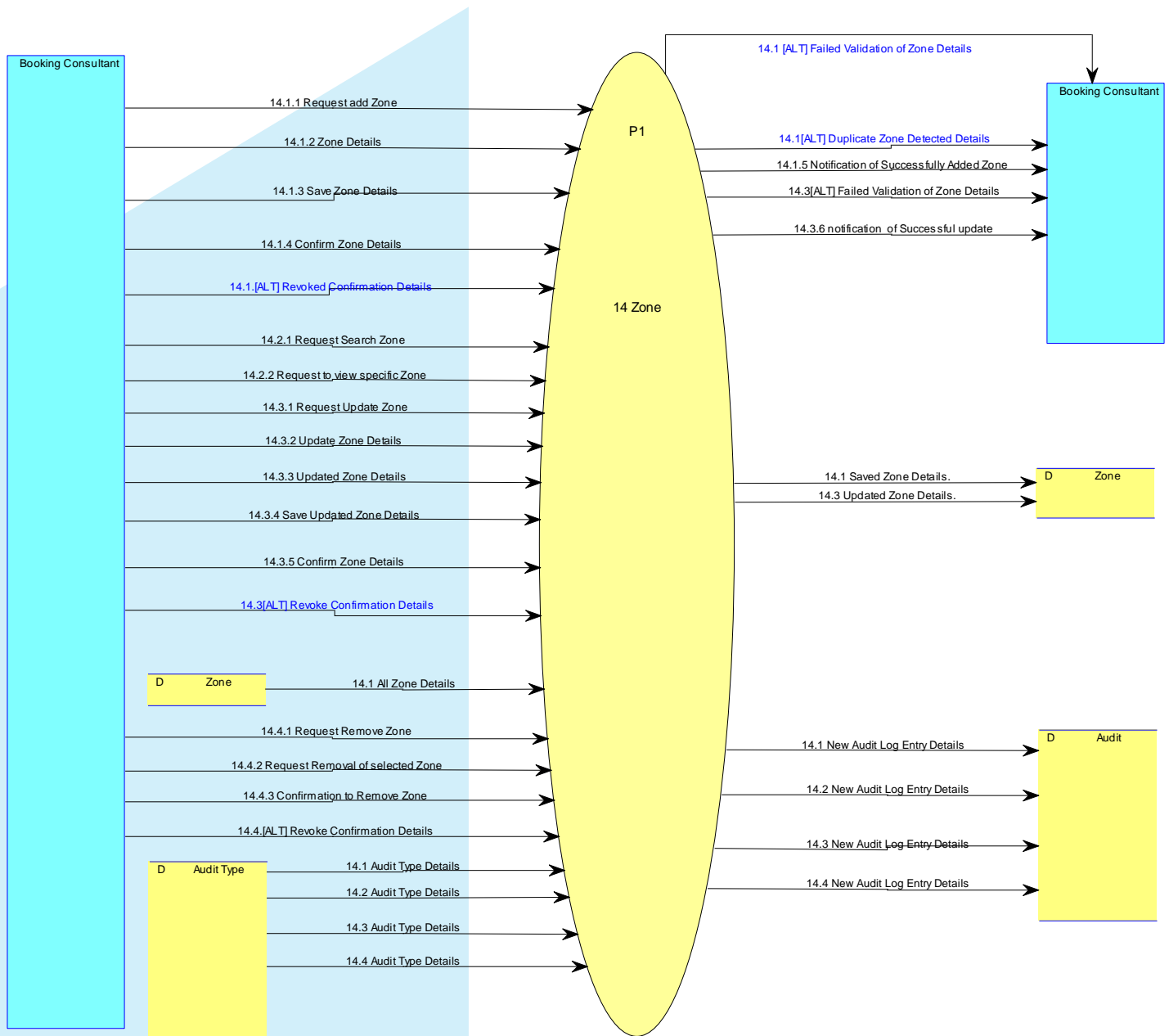




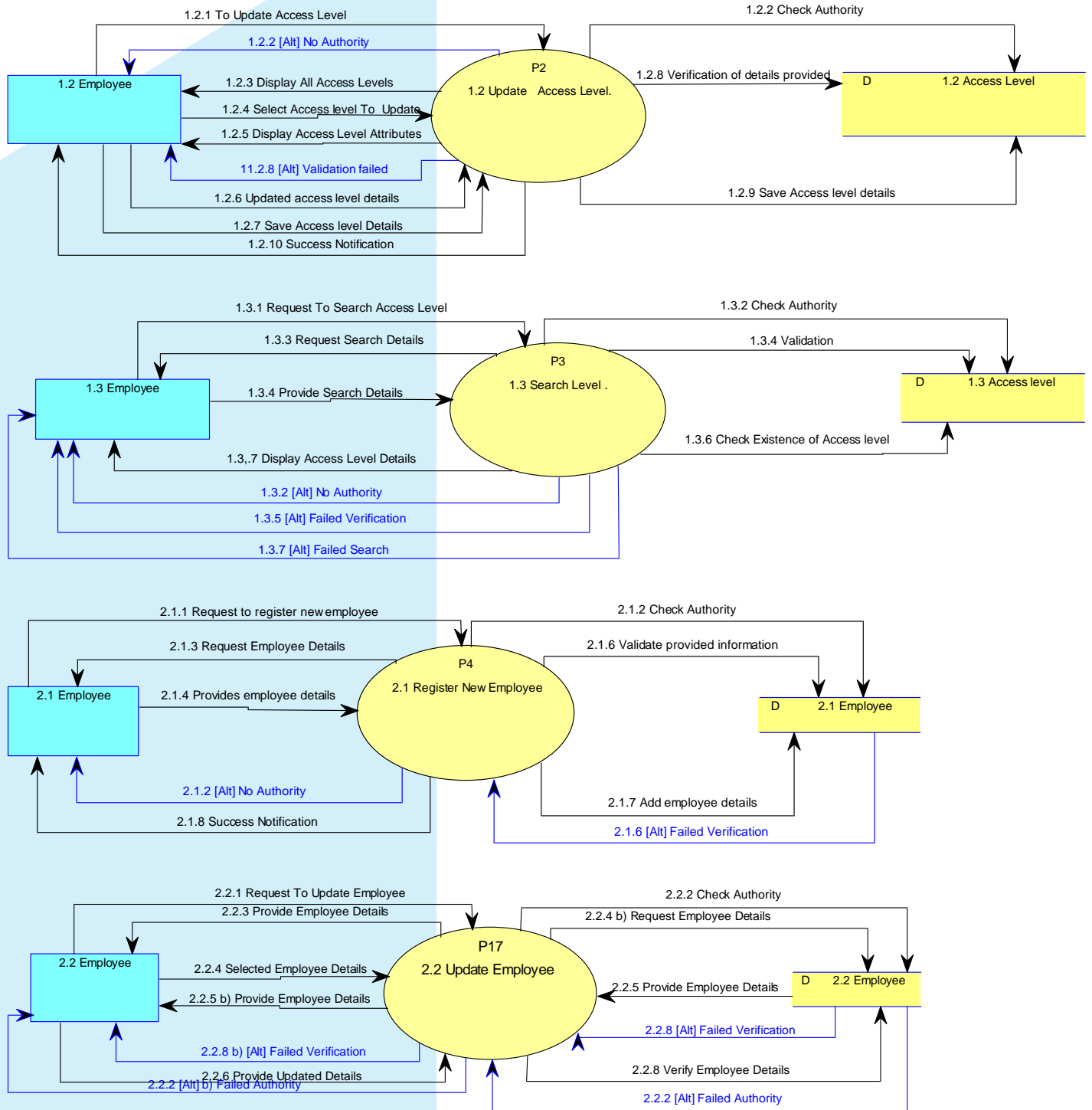


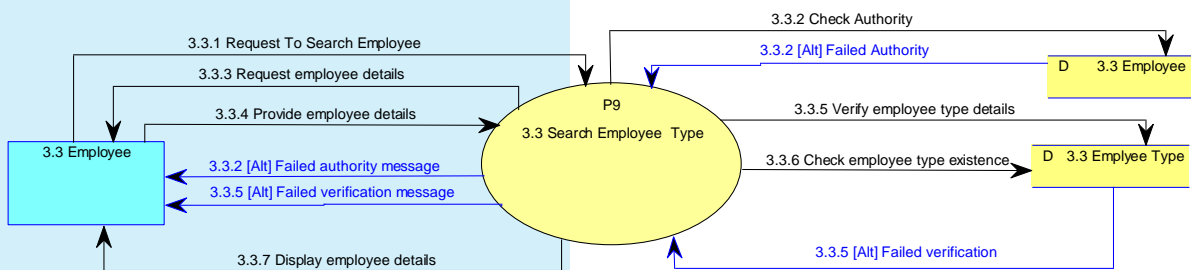
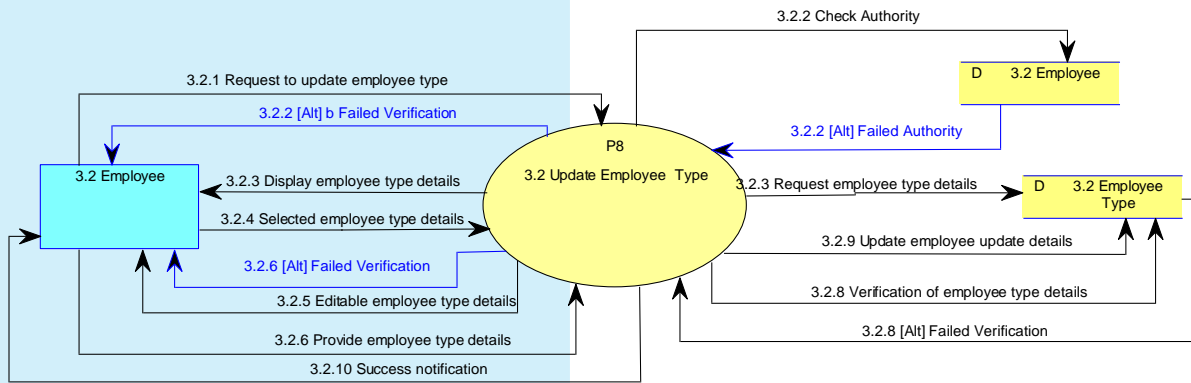
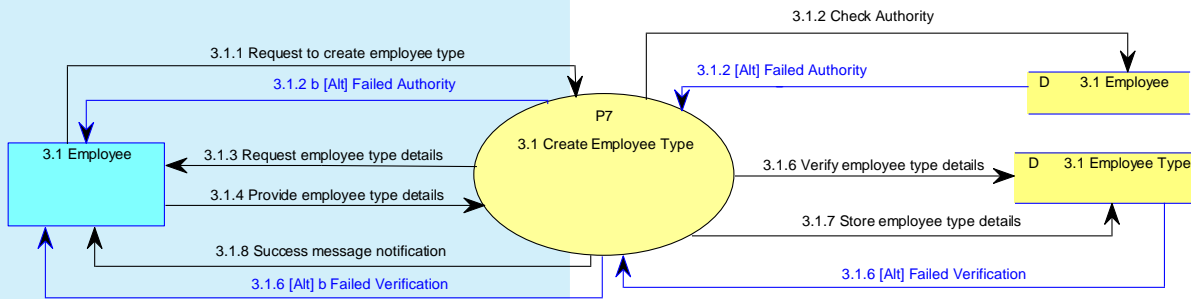
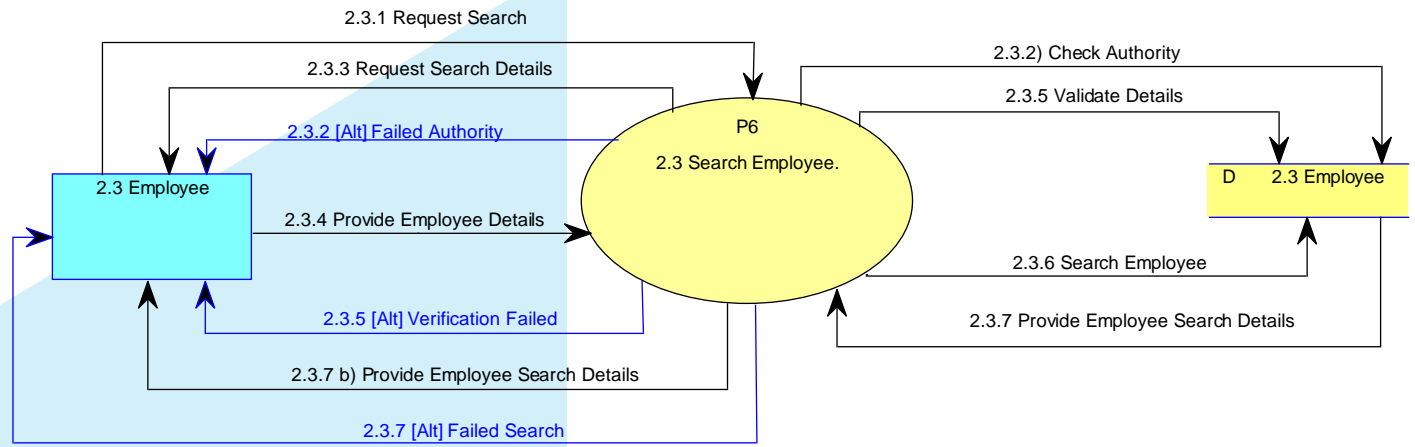


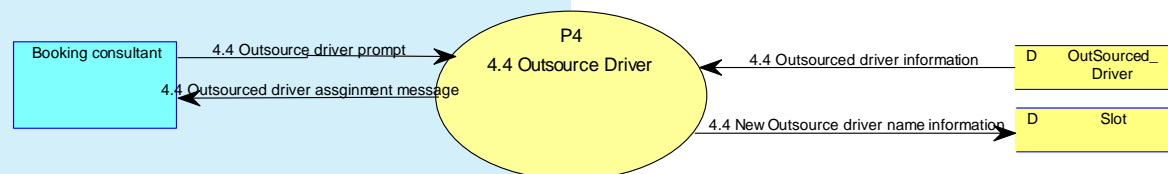
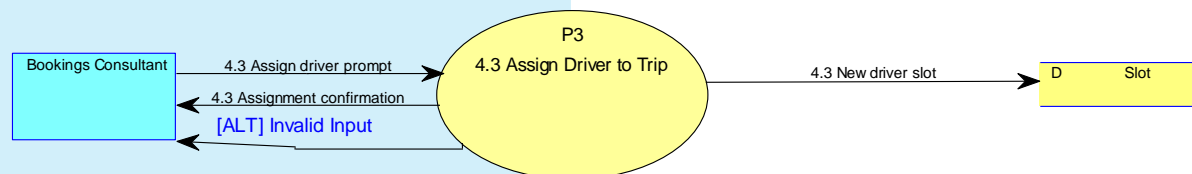
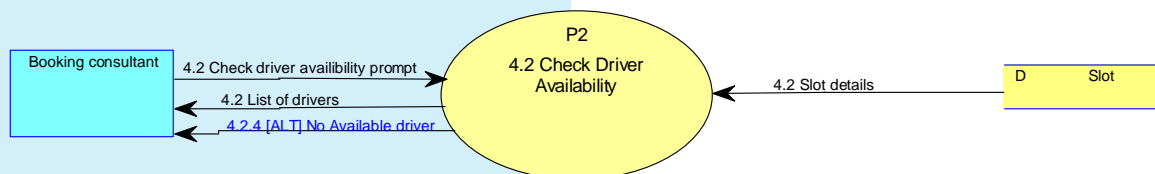
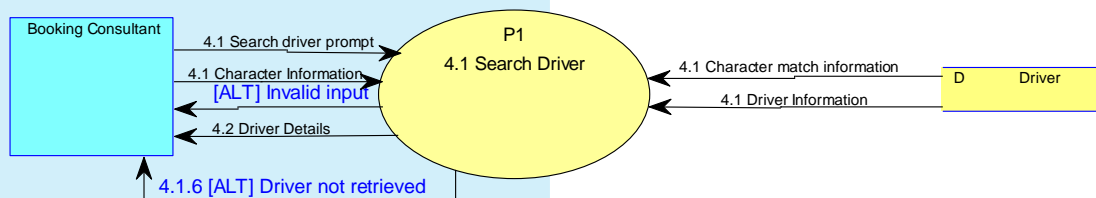
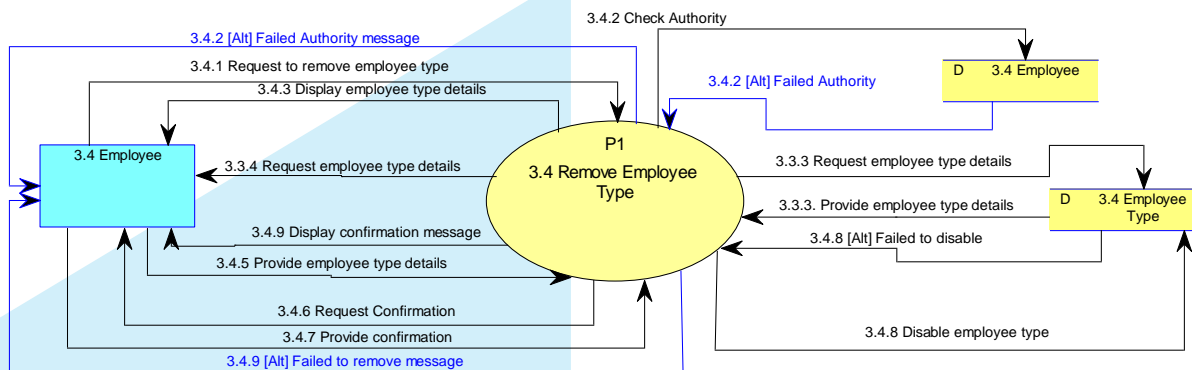


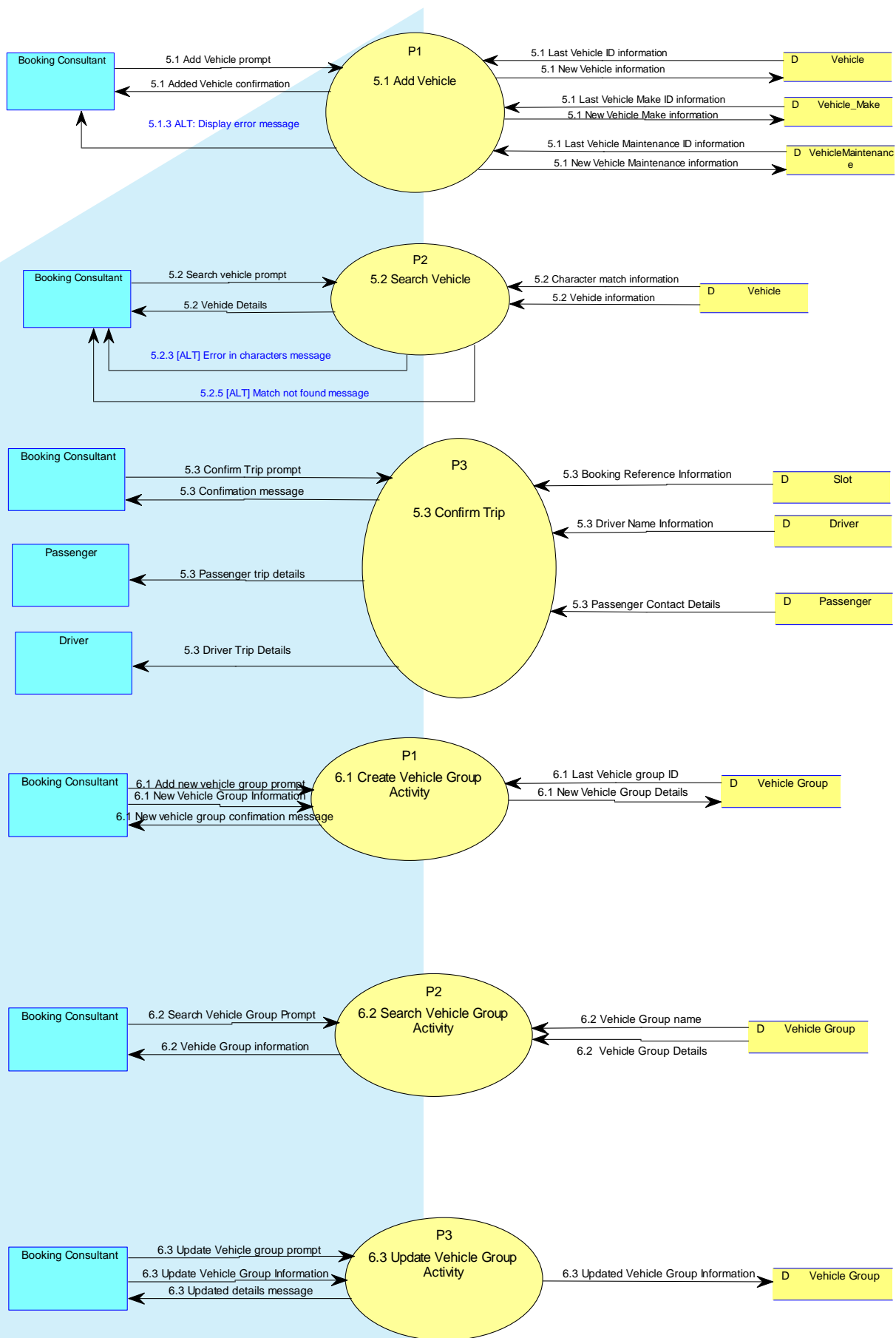


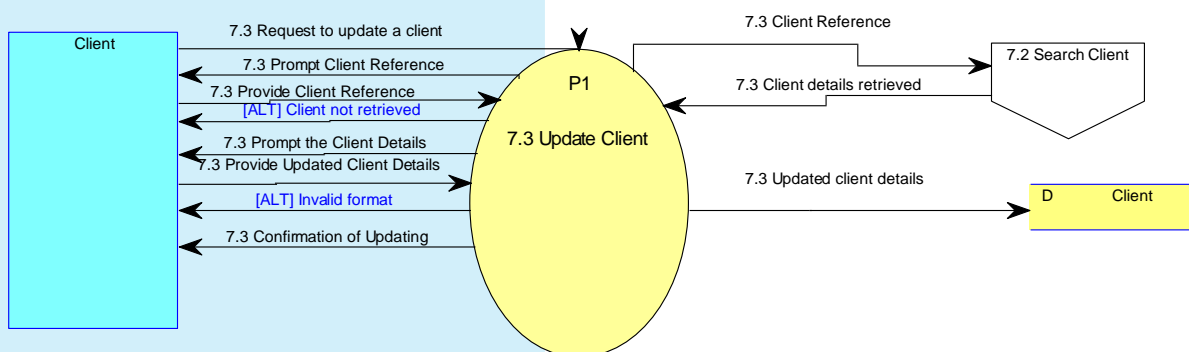
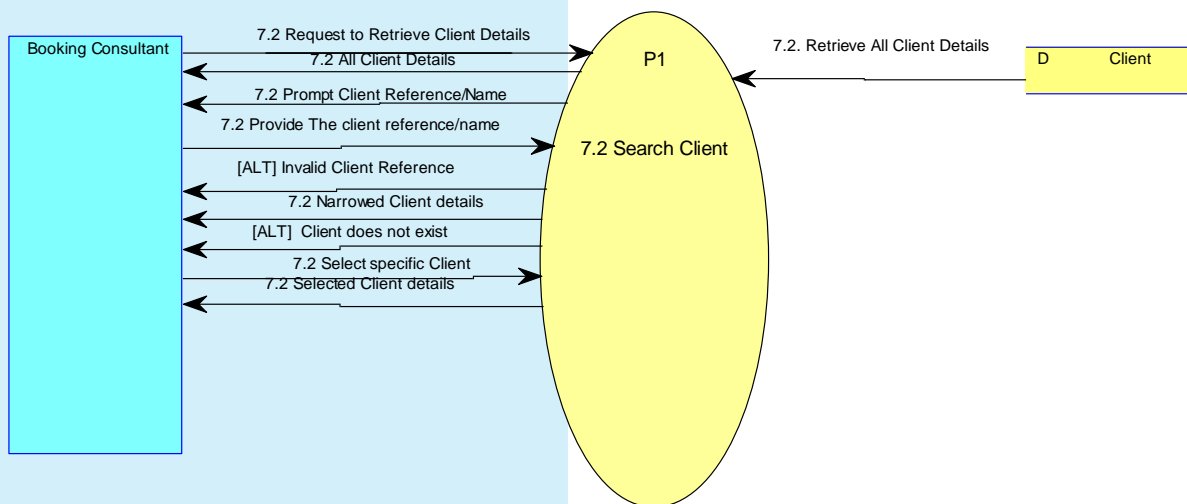
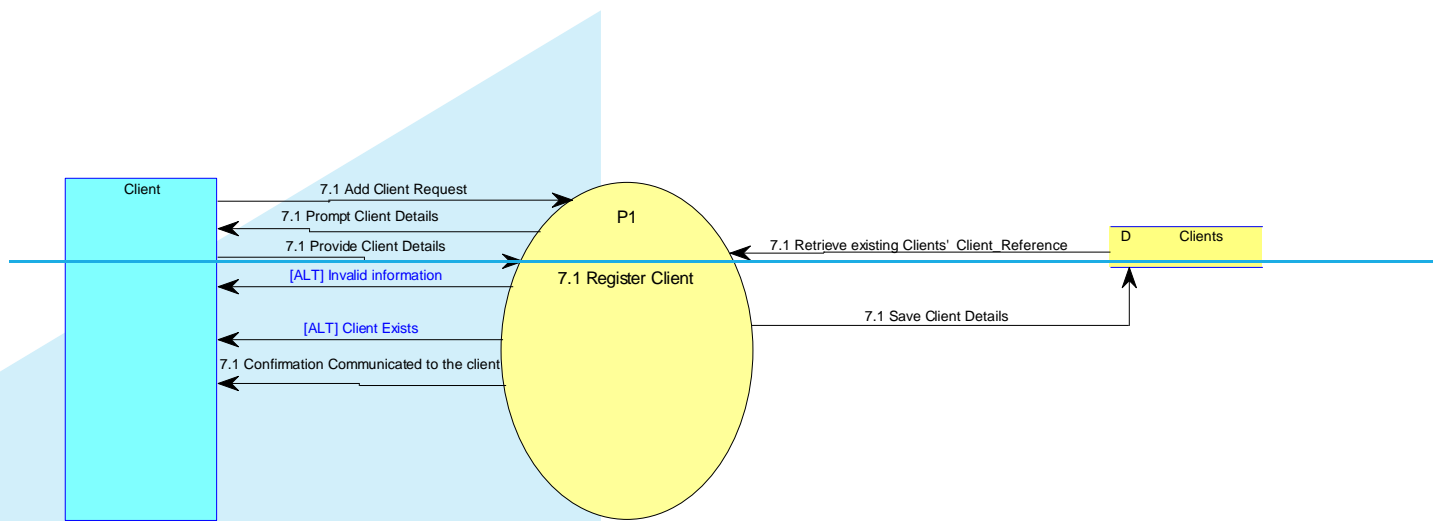
Mid Level

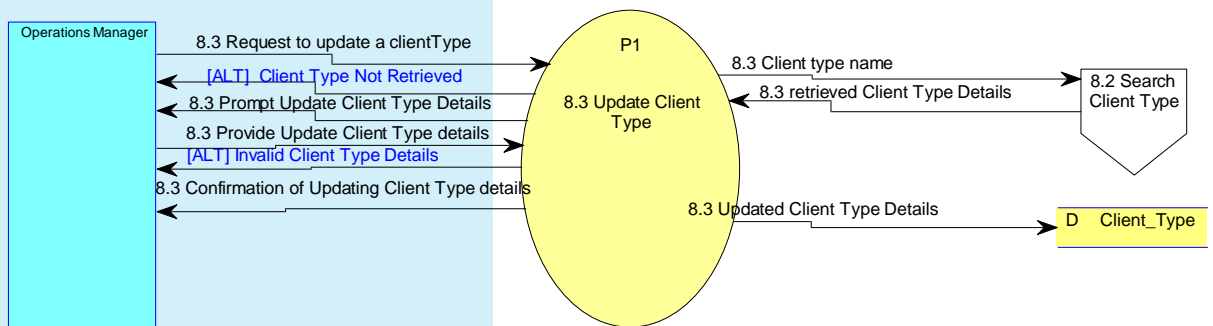
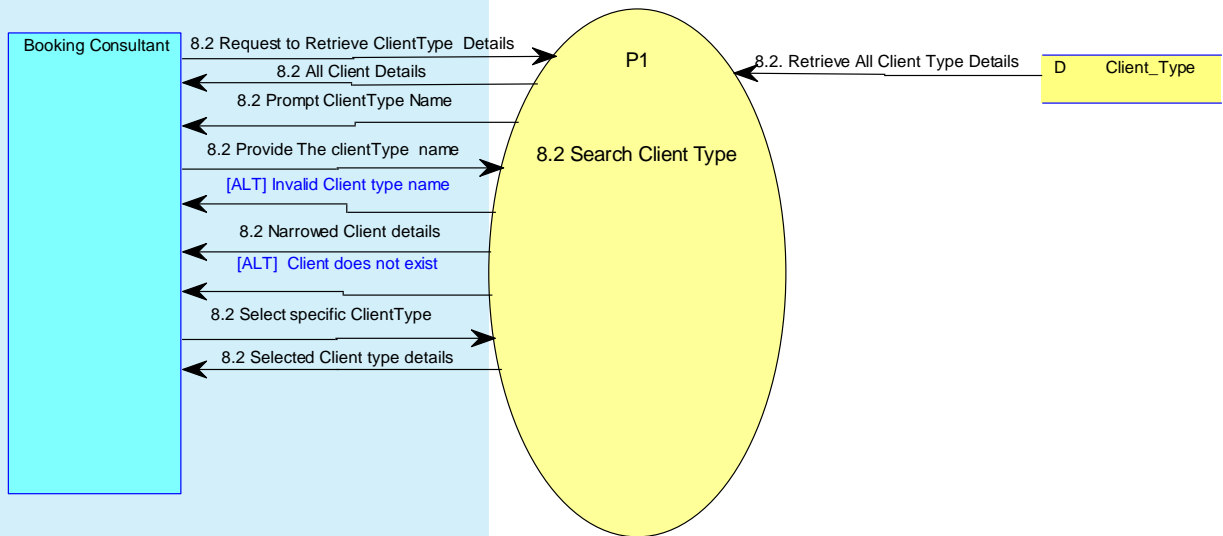
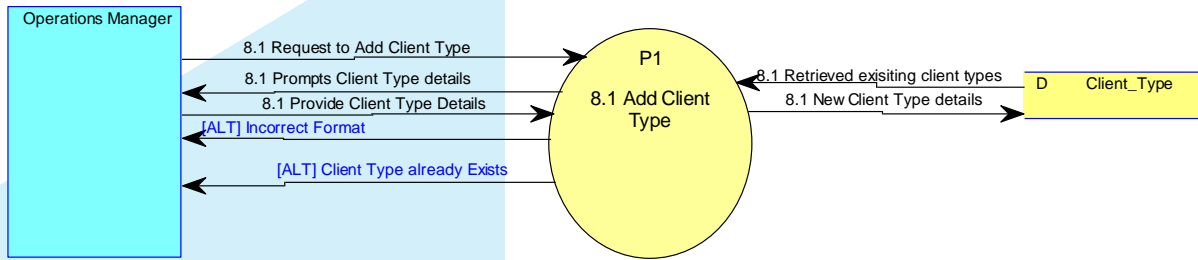


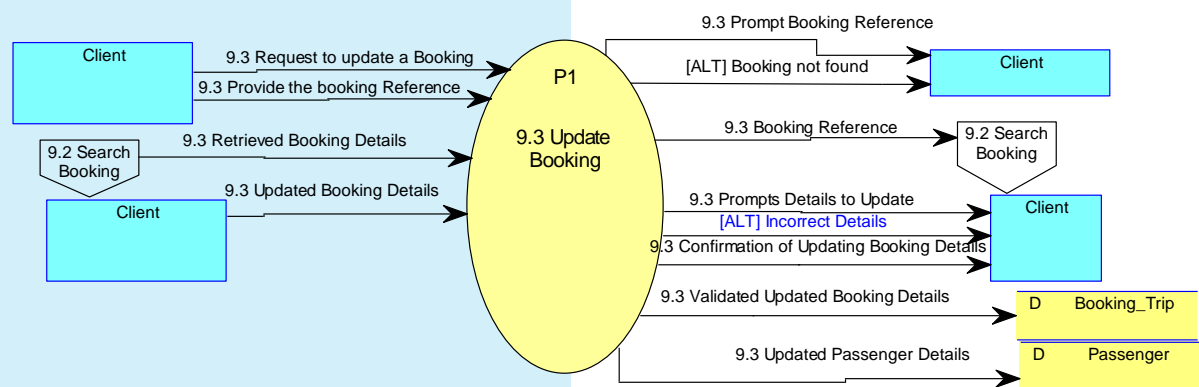
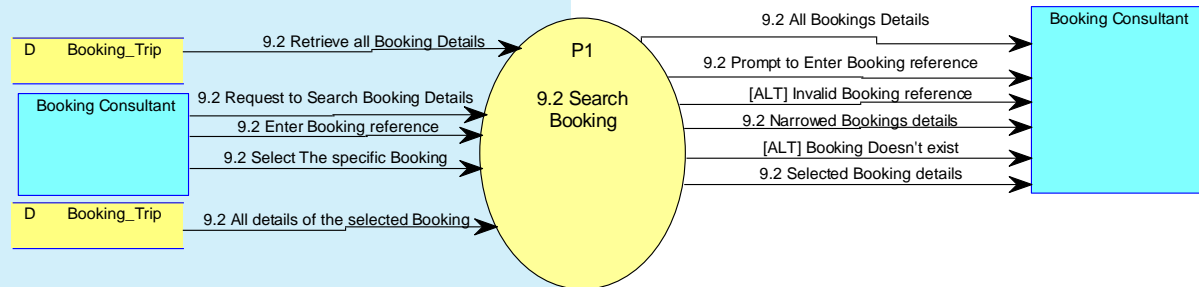
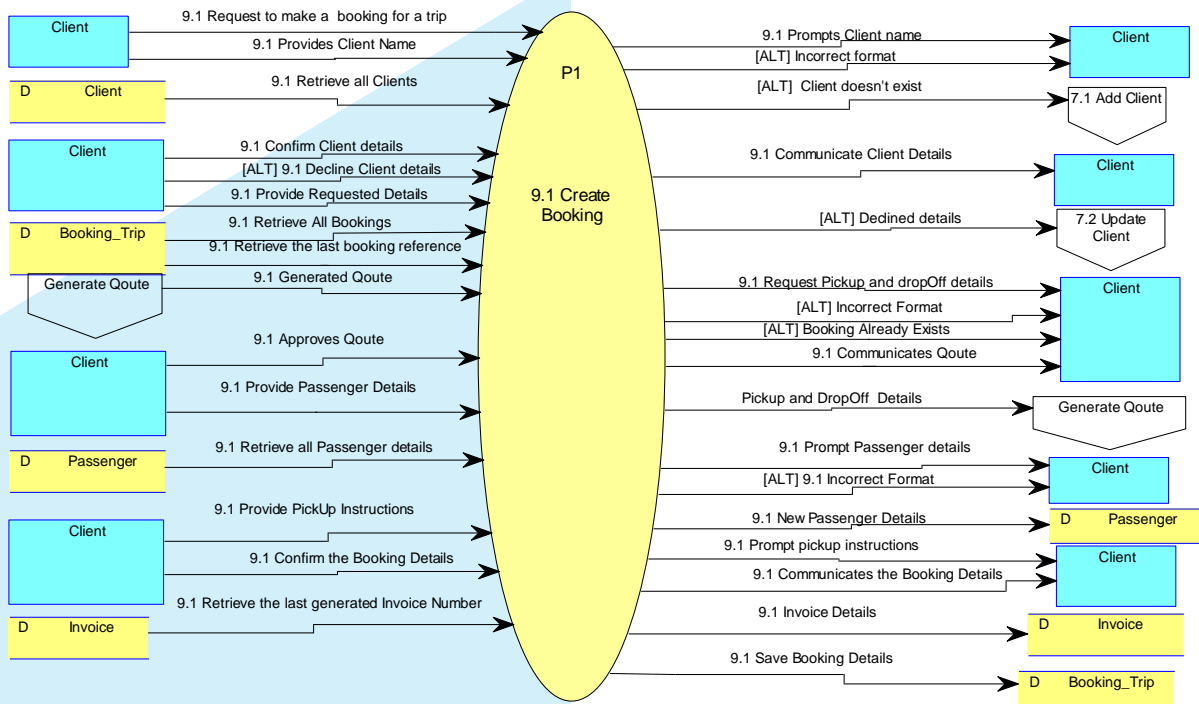


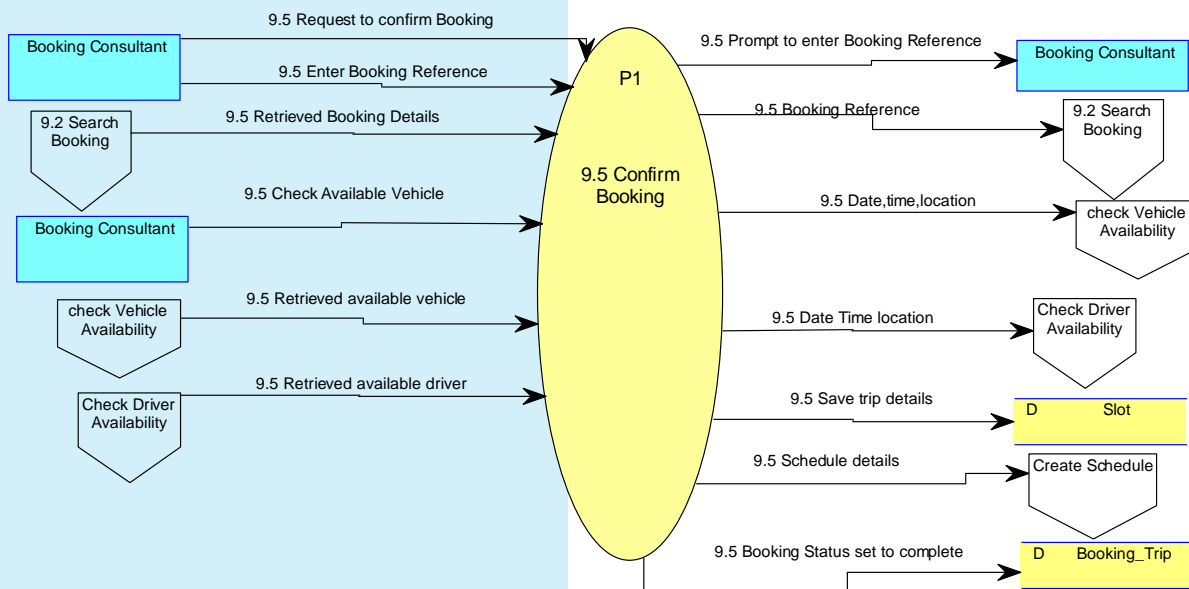
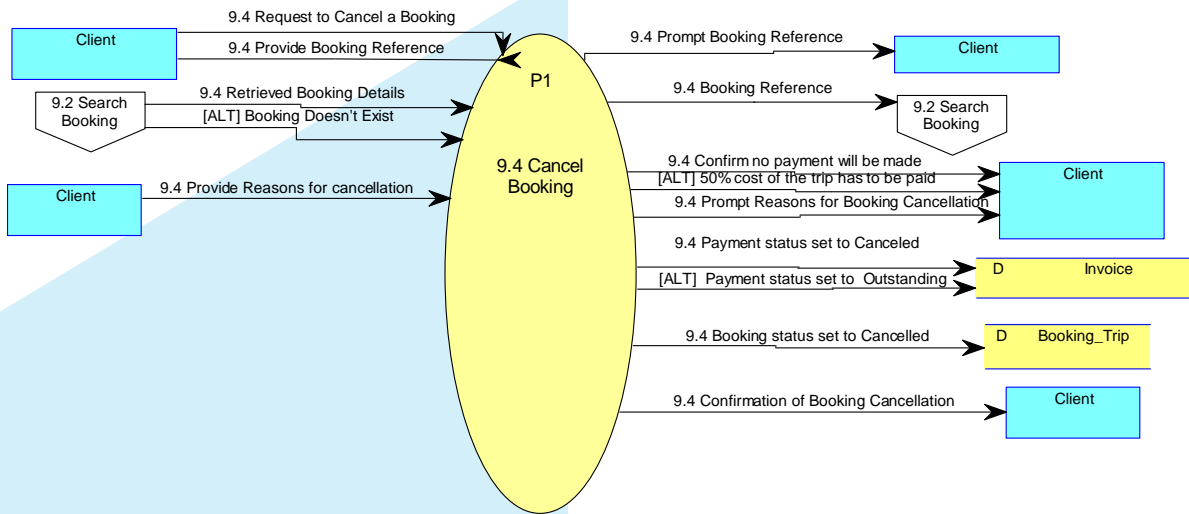


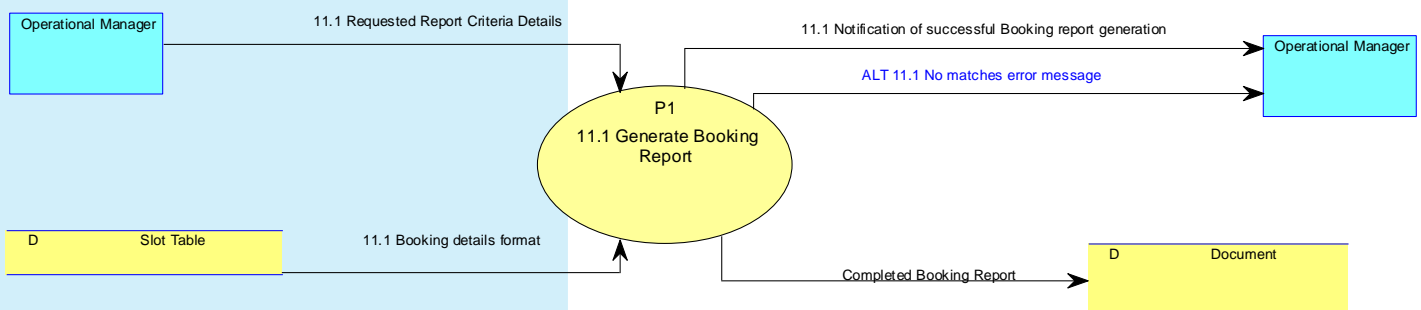
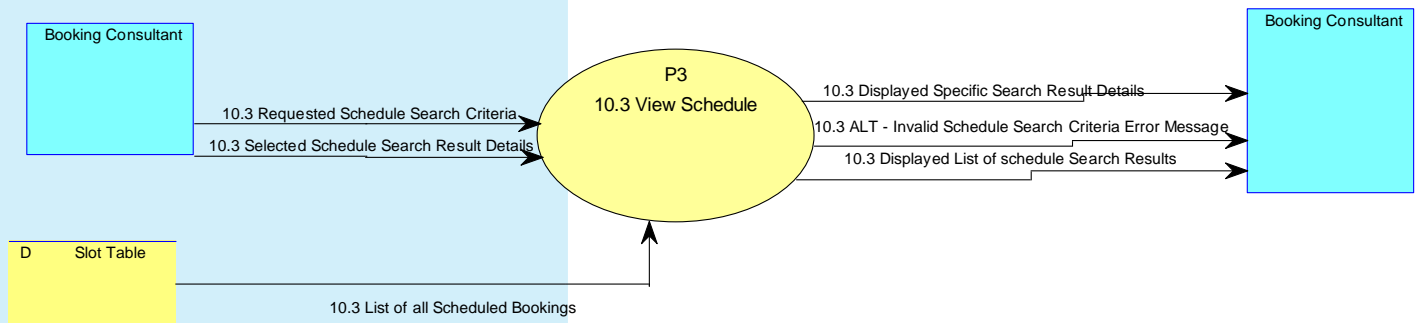
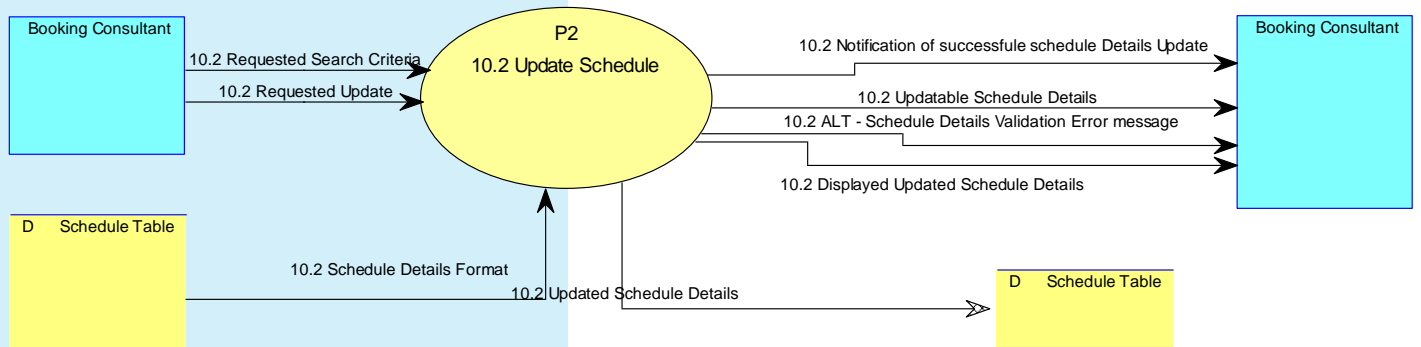
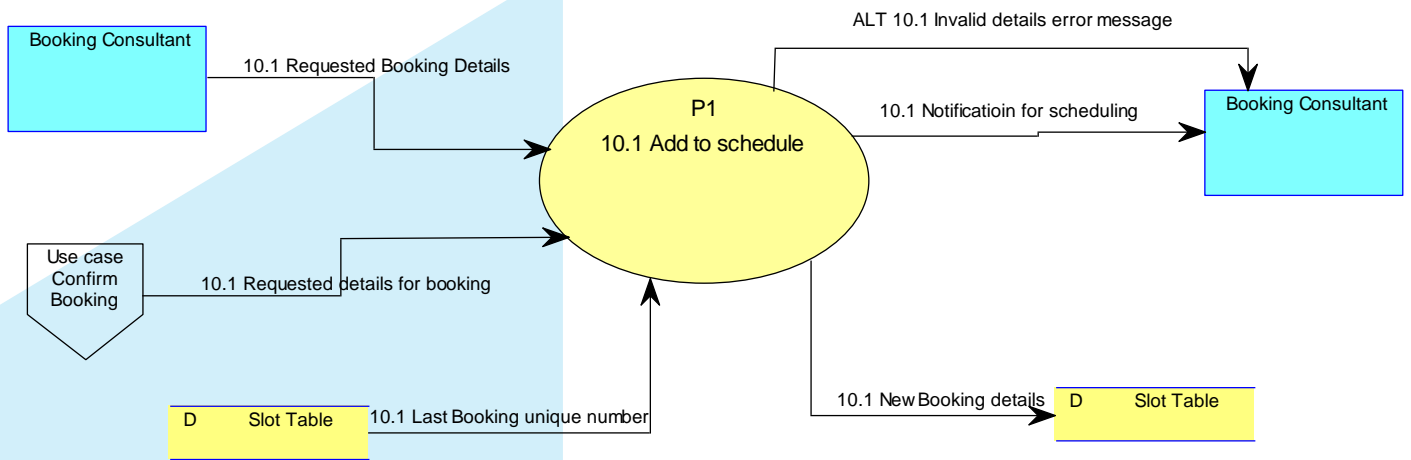


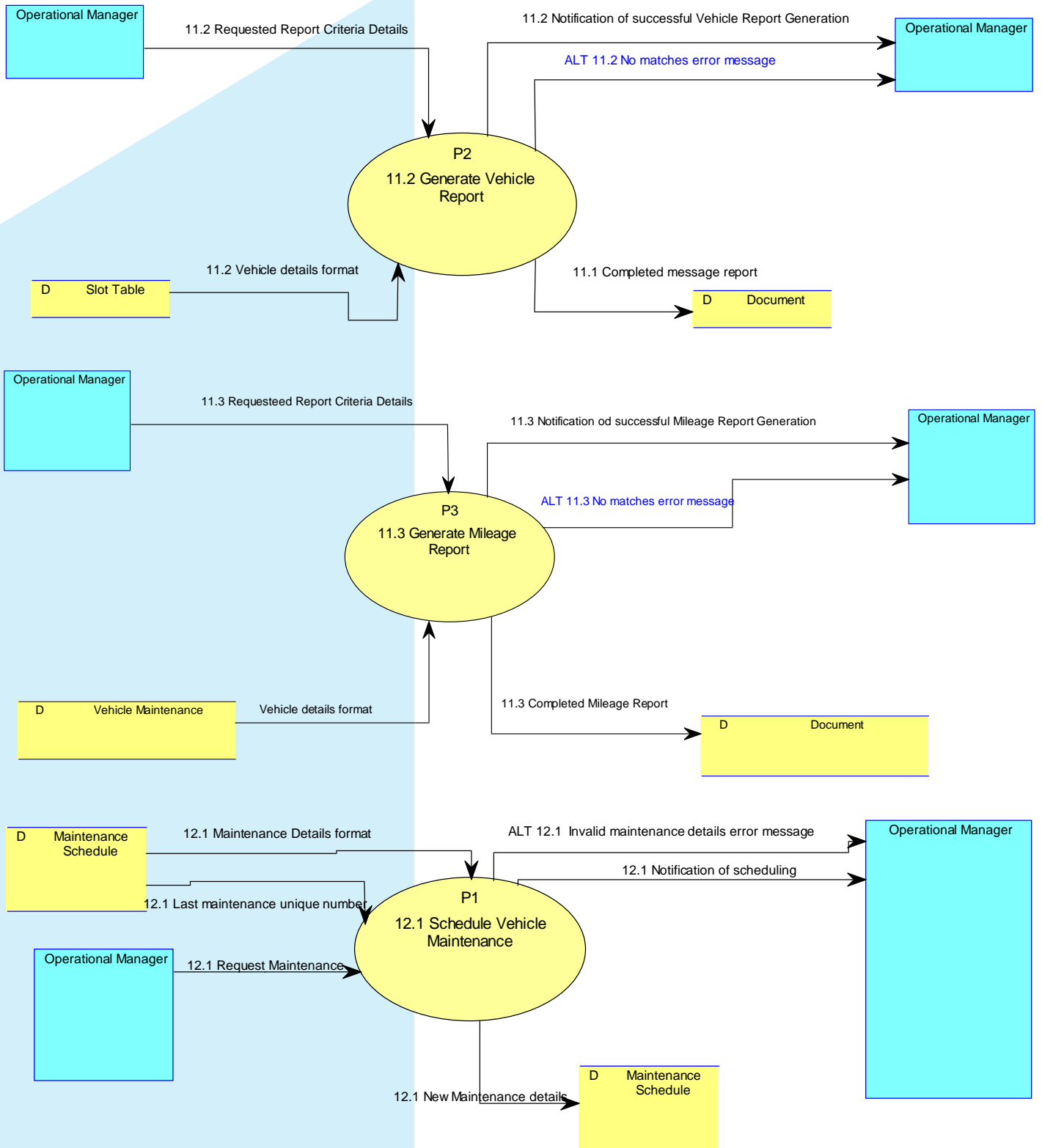


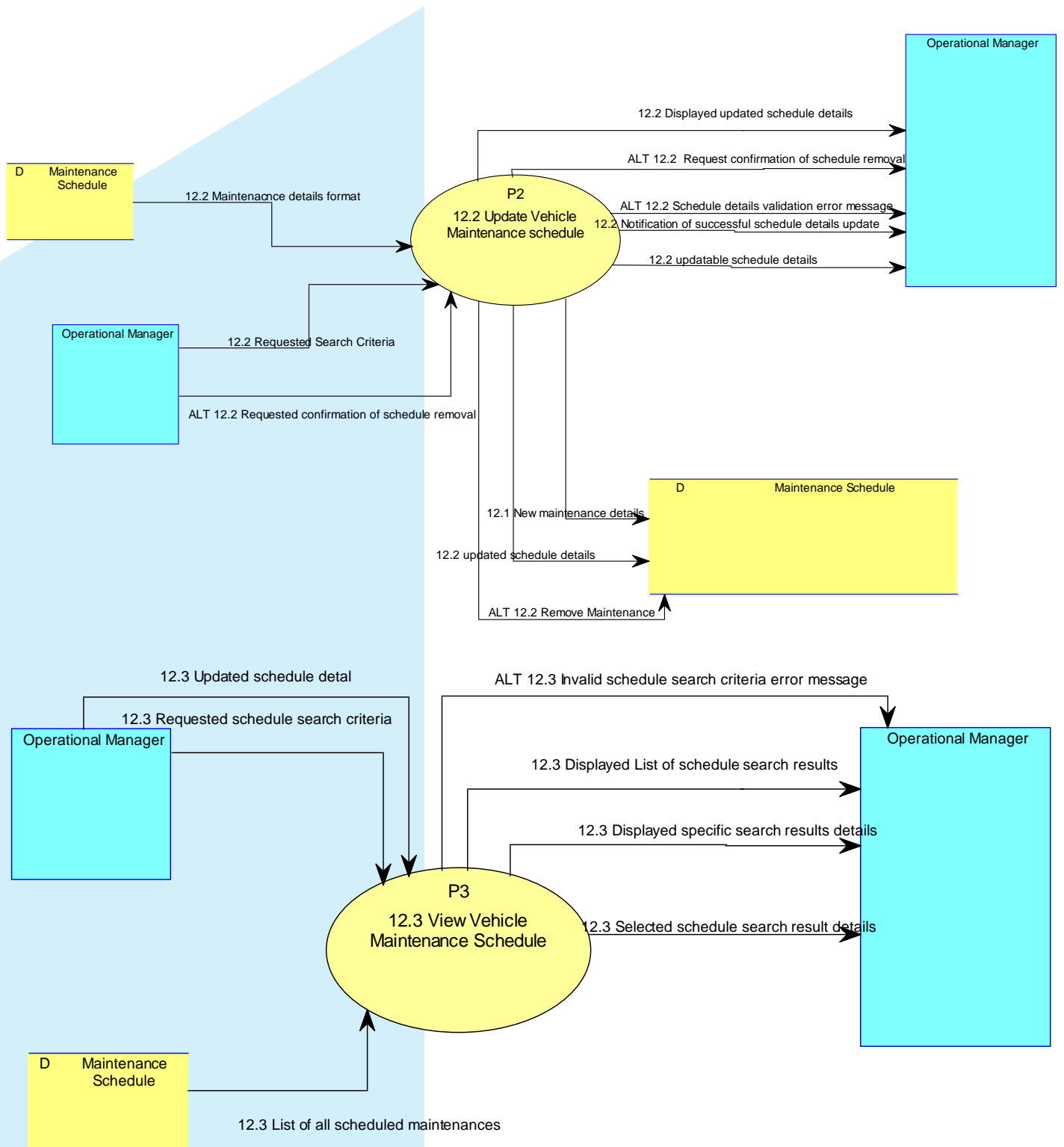


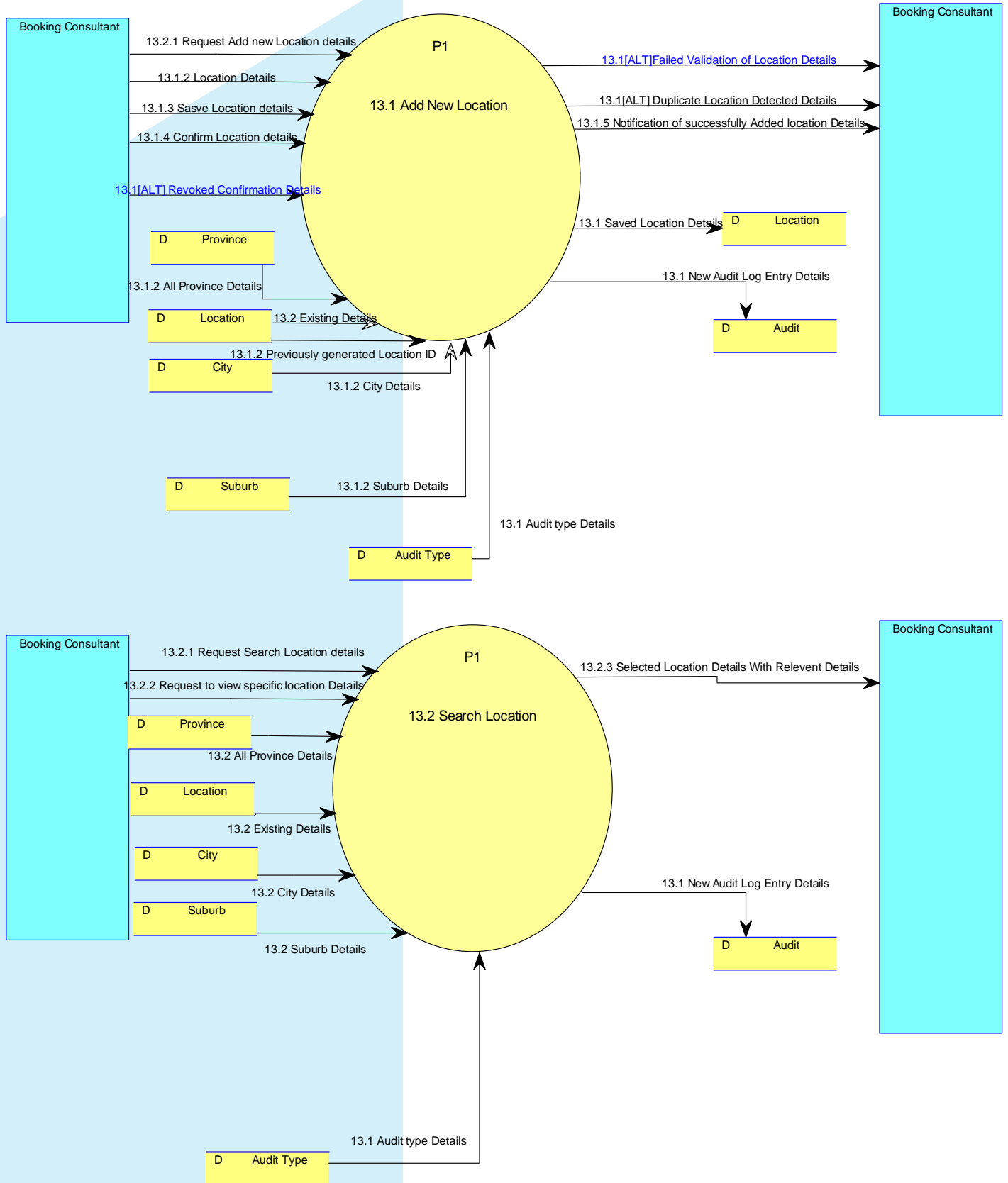


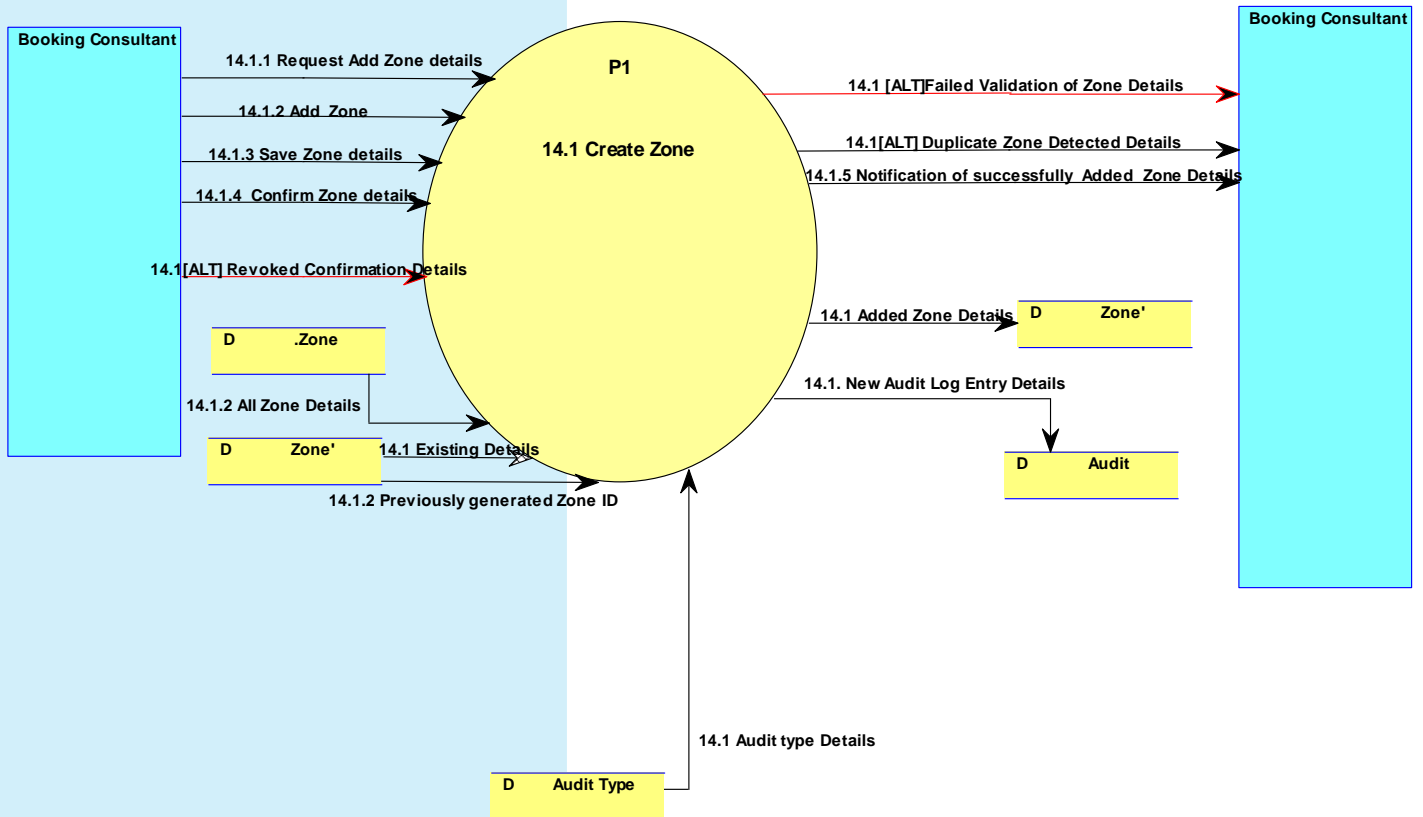
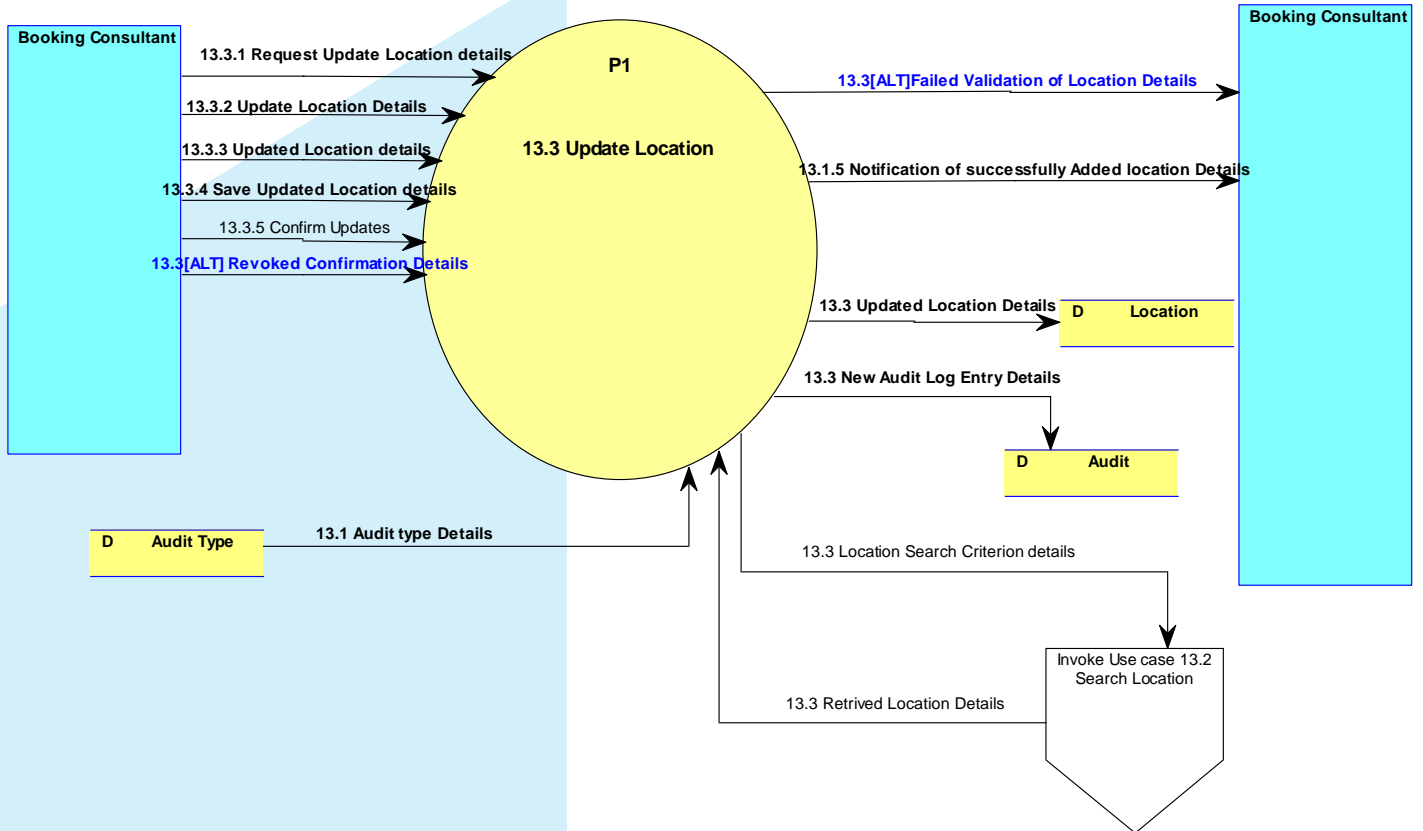


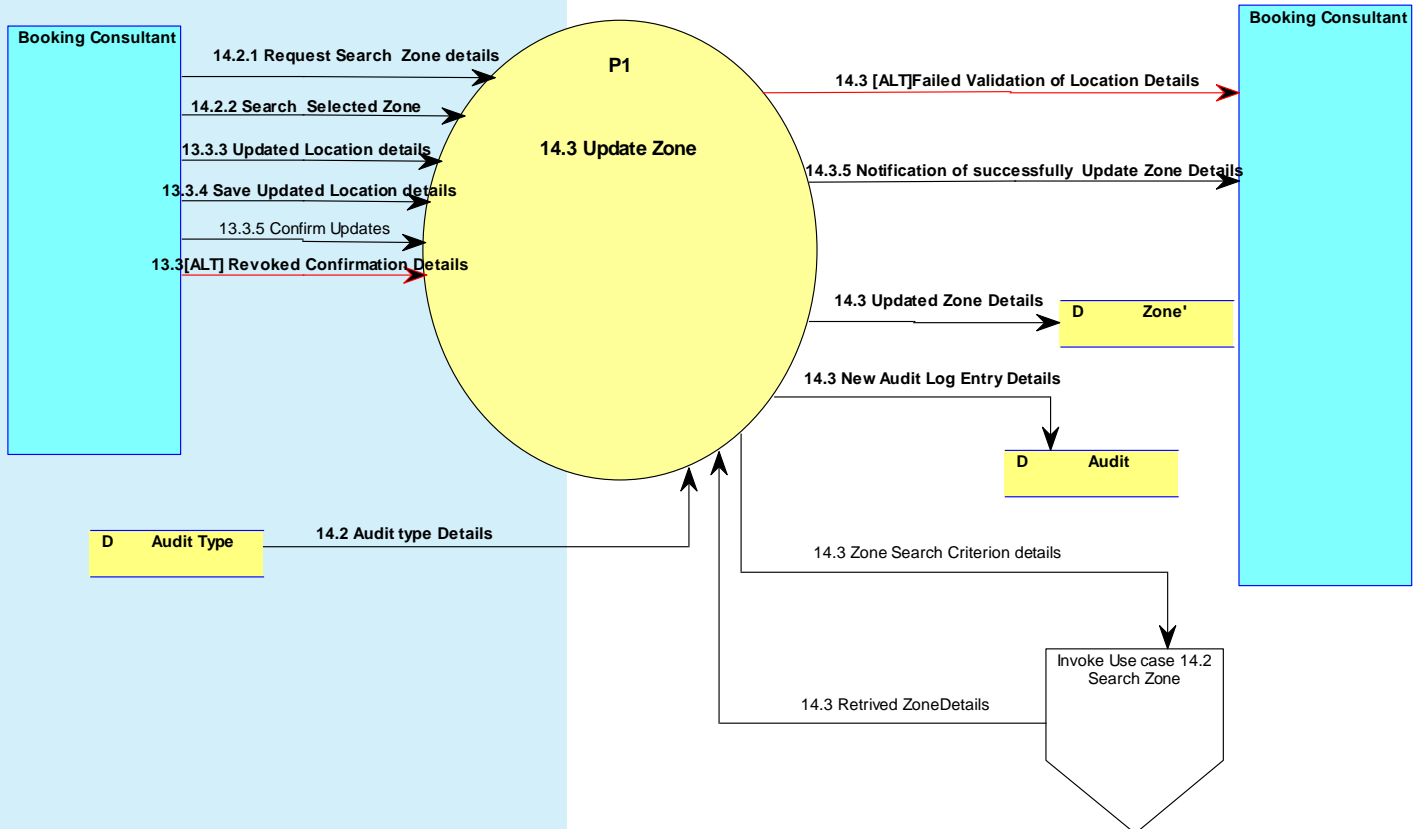
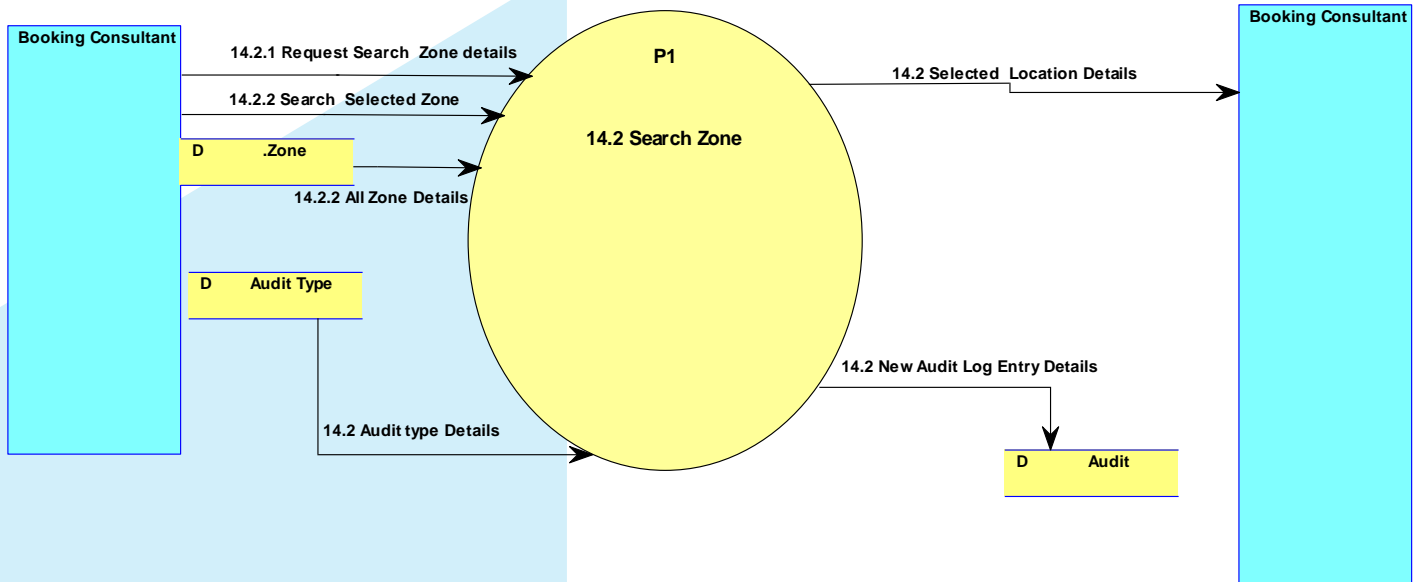


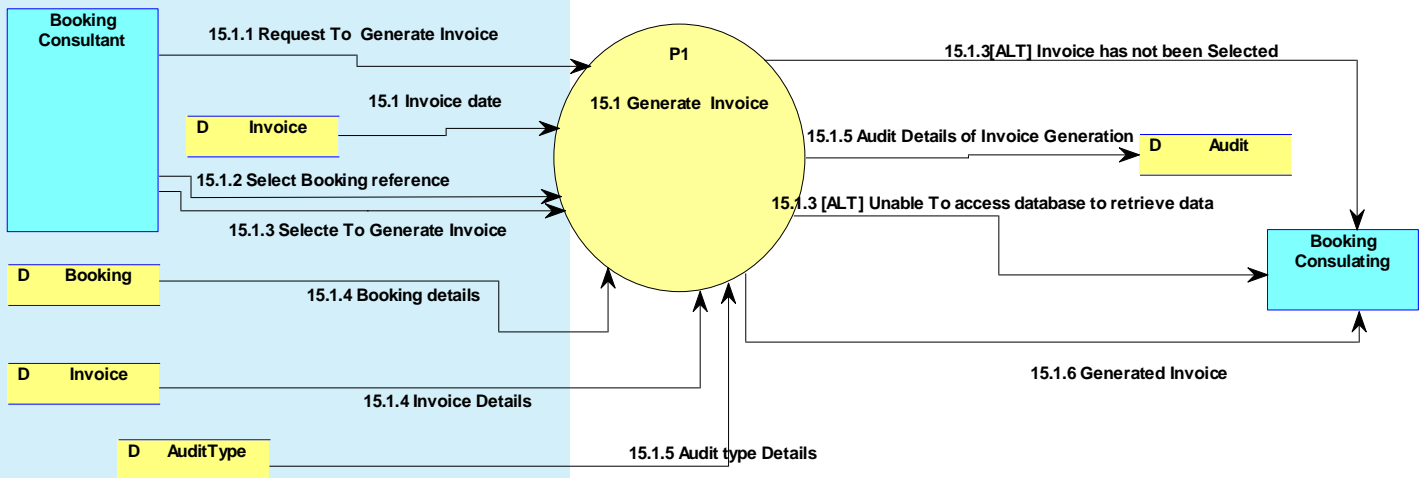
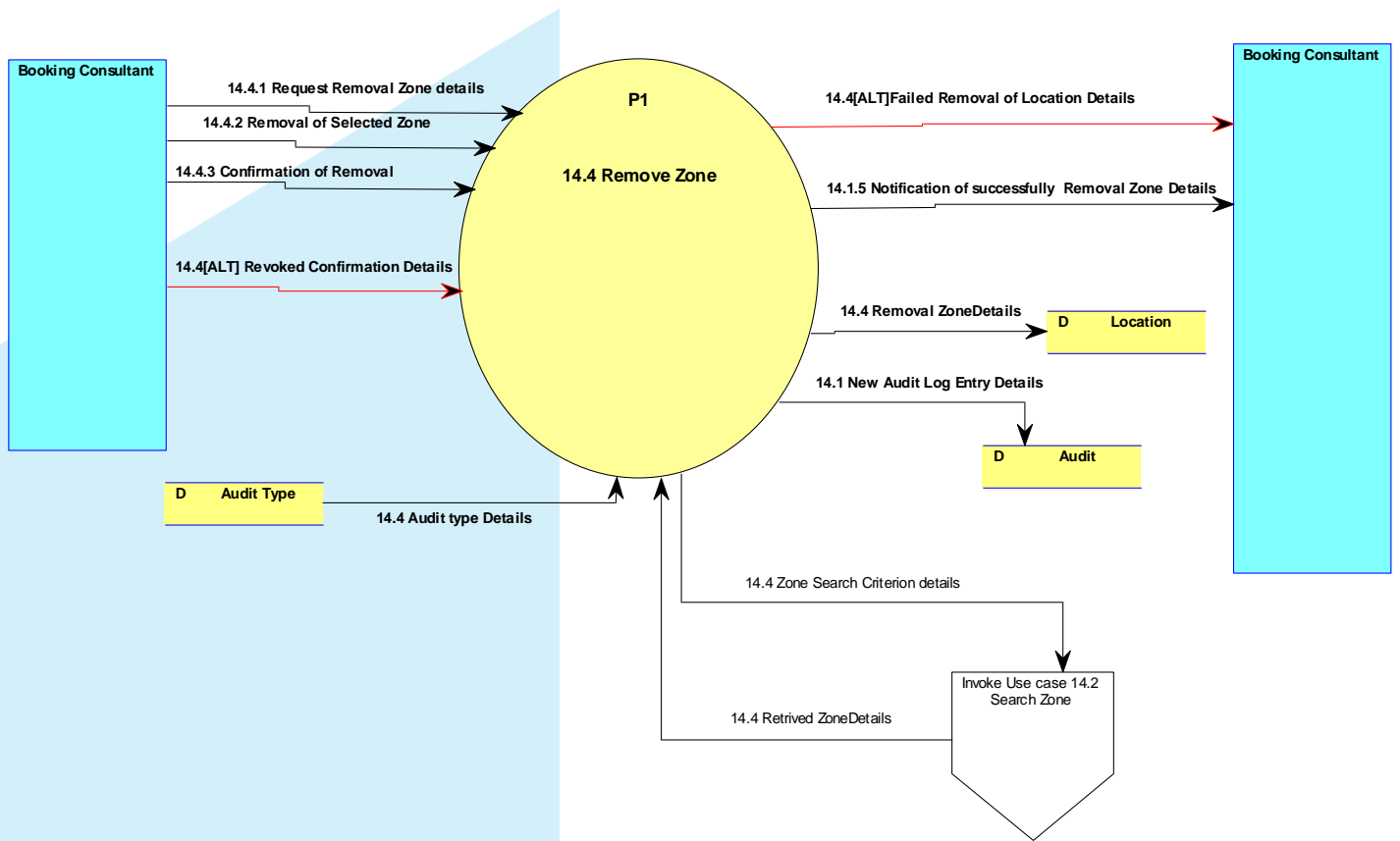


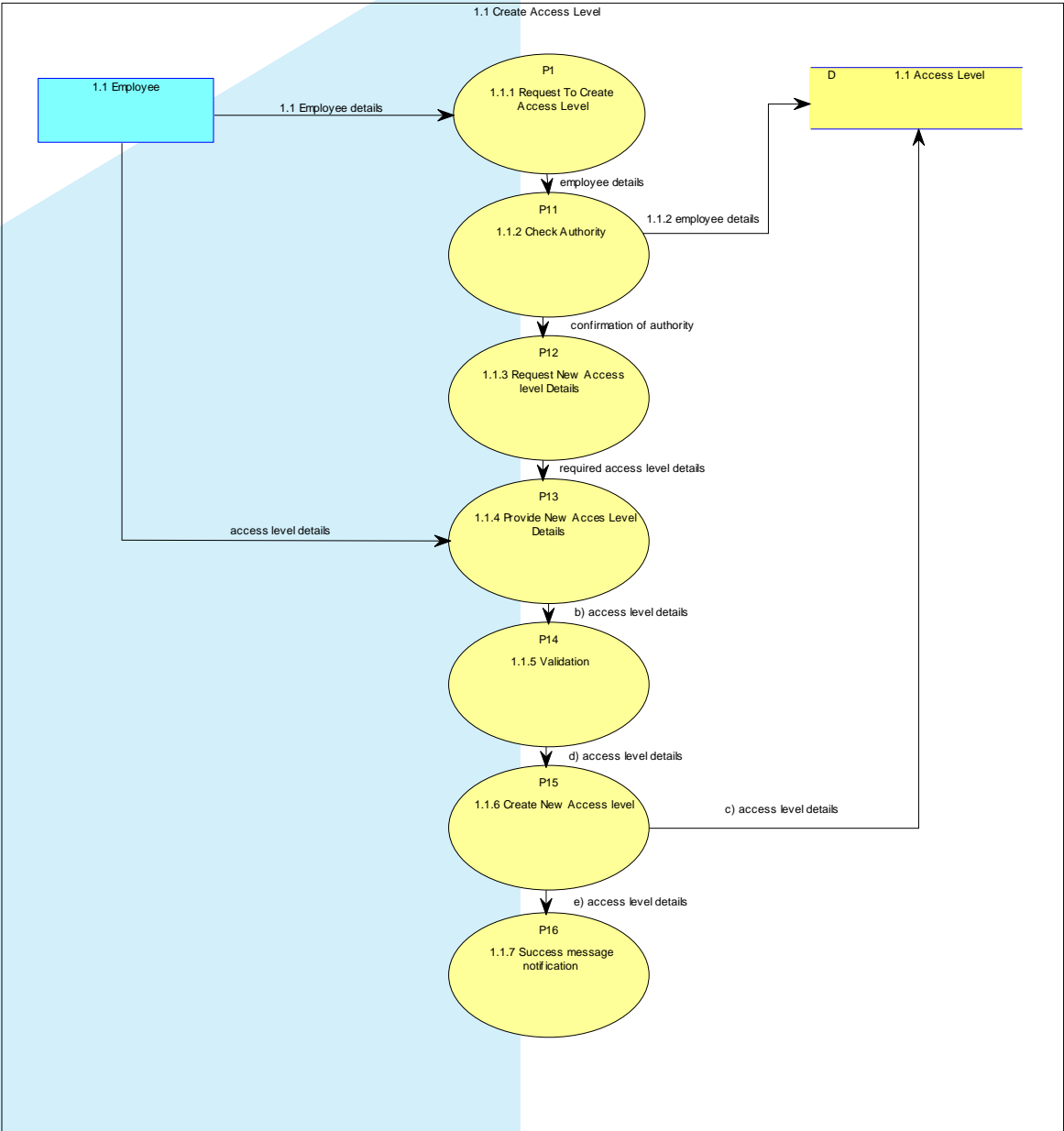


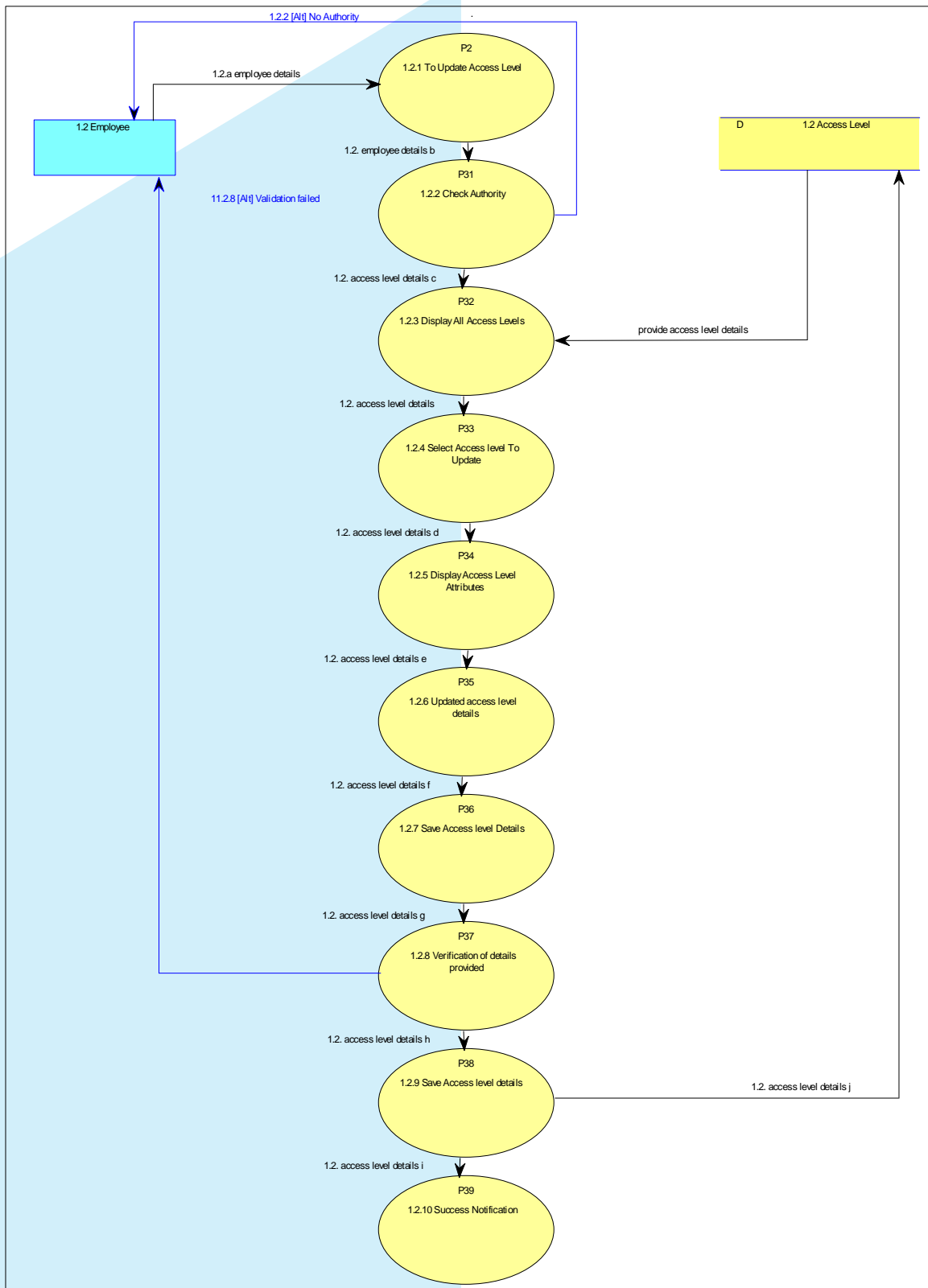


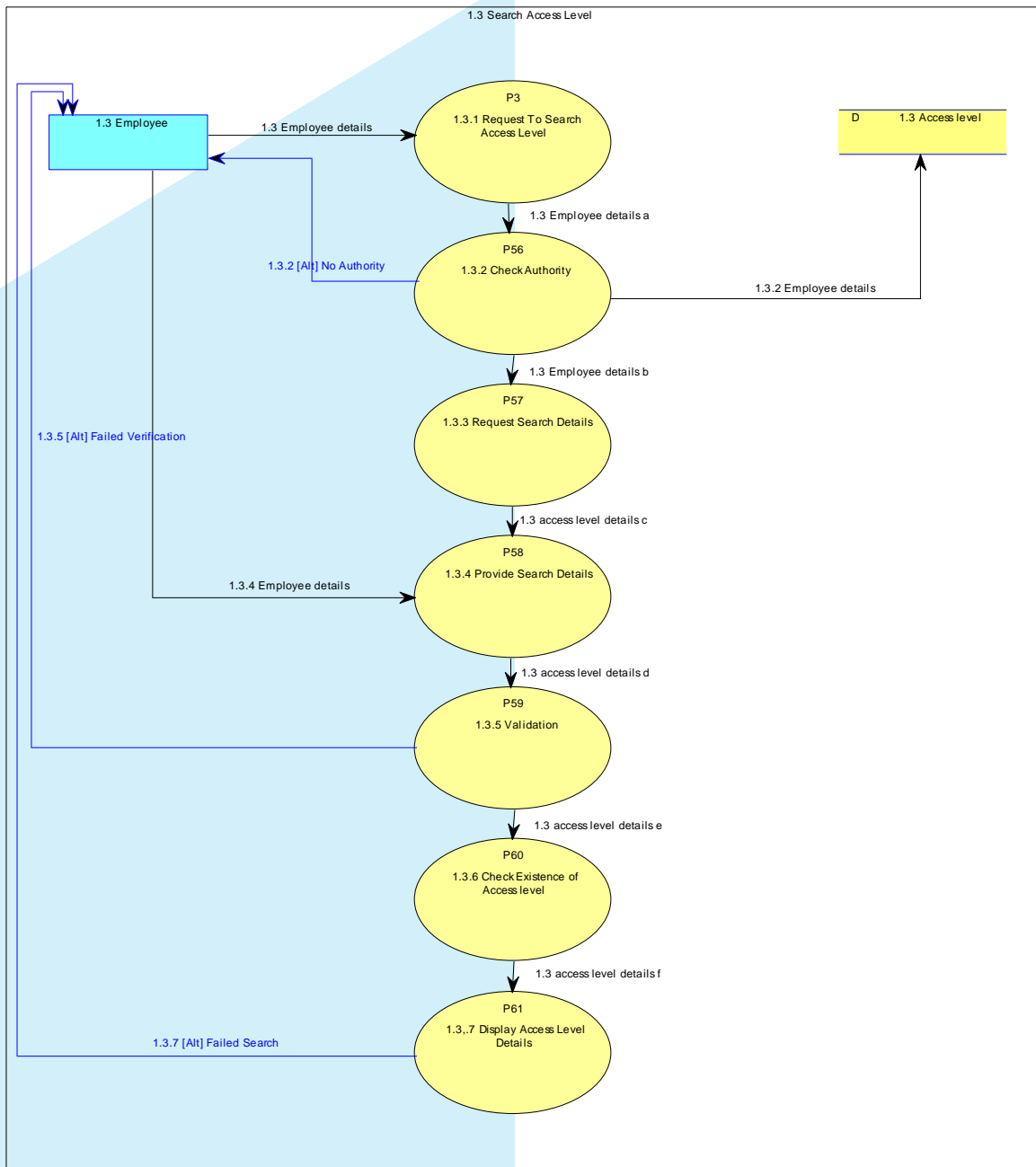


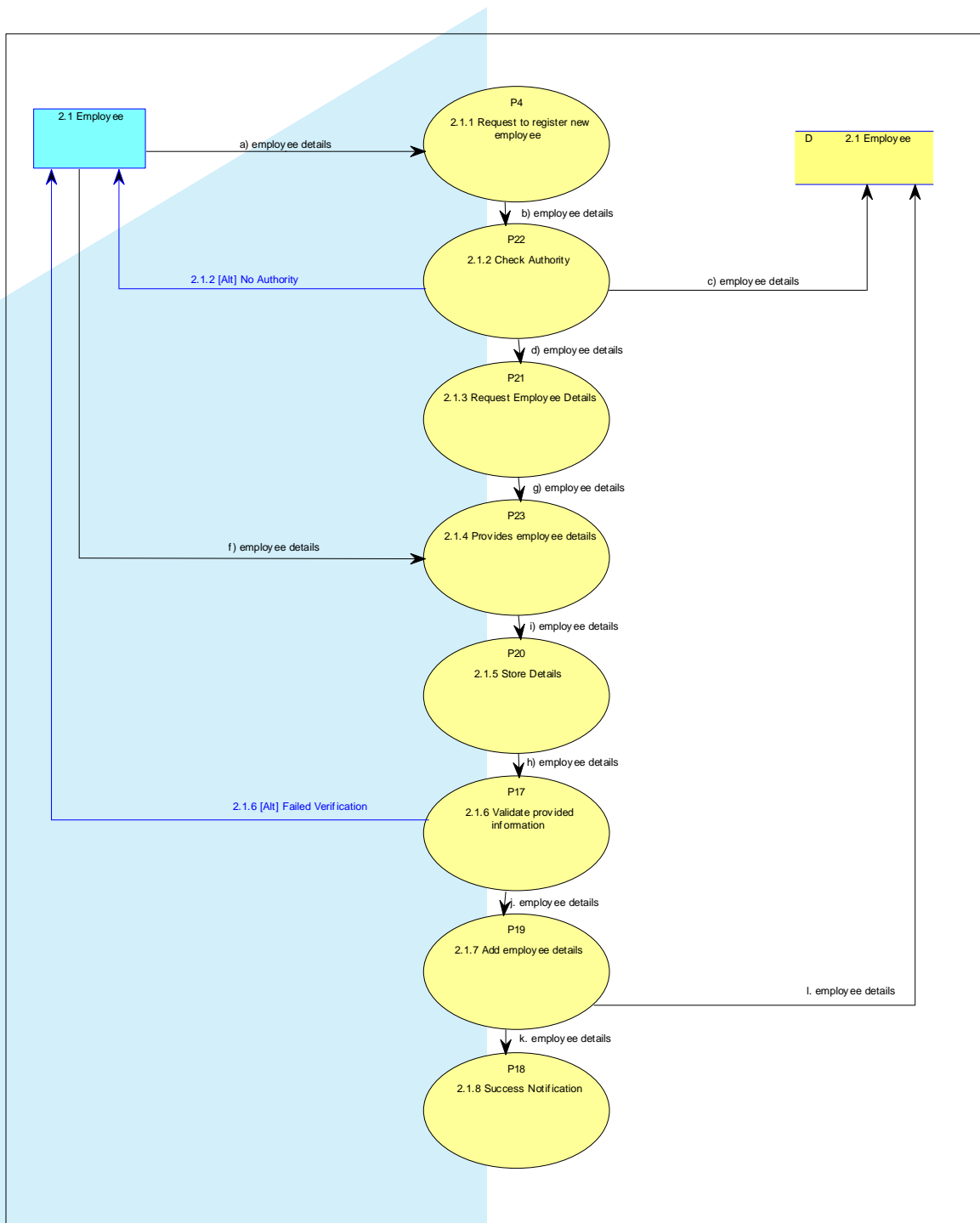


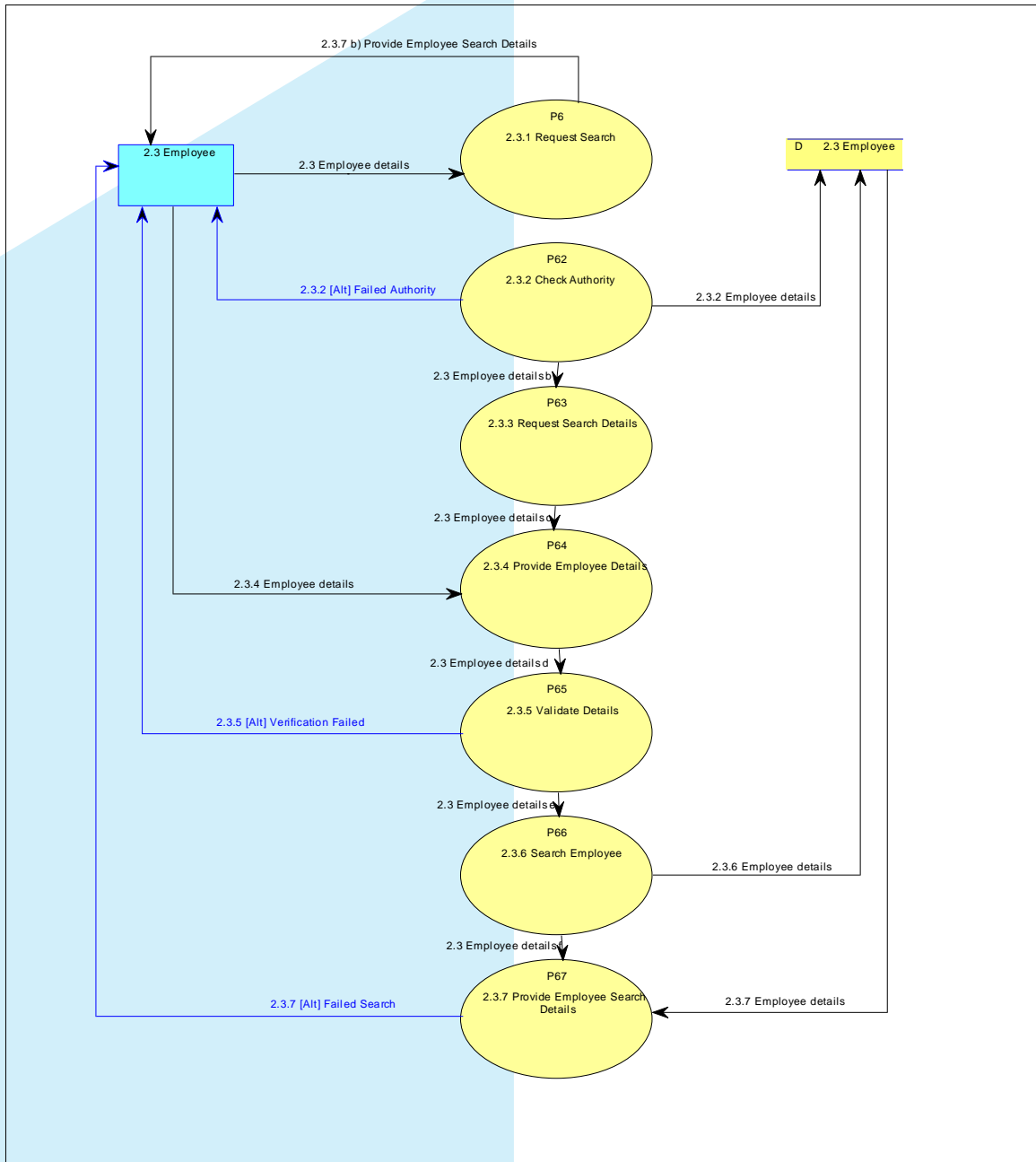


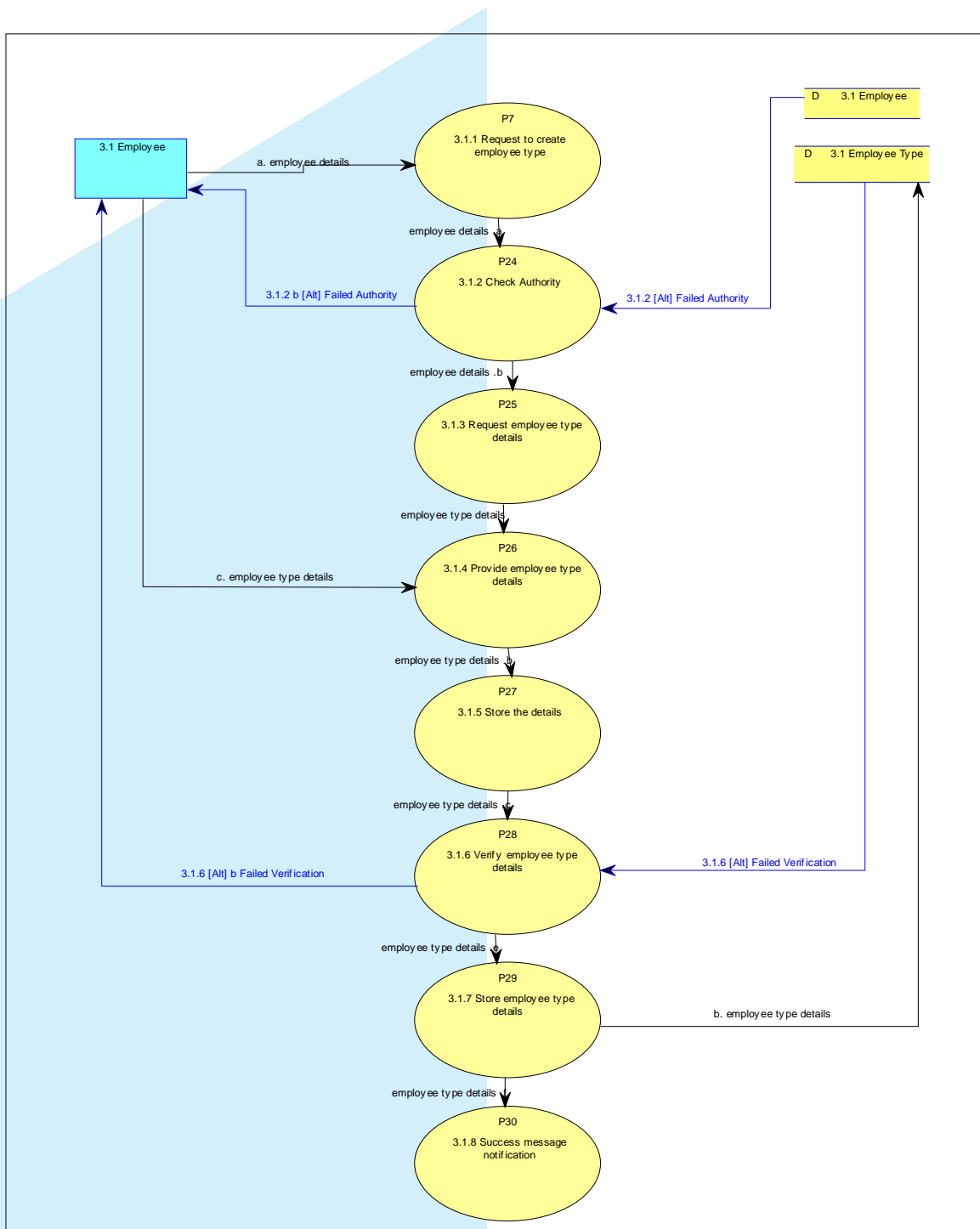


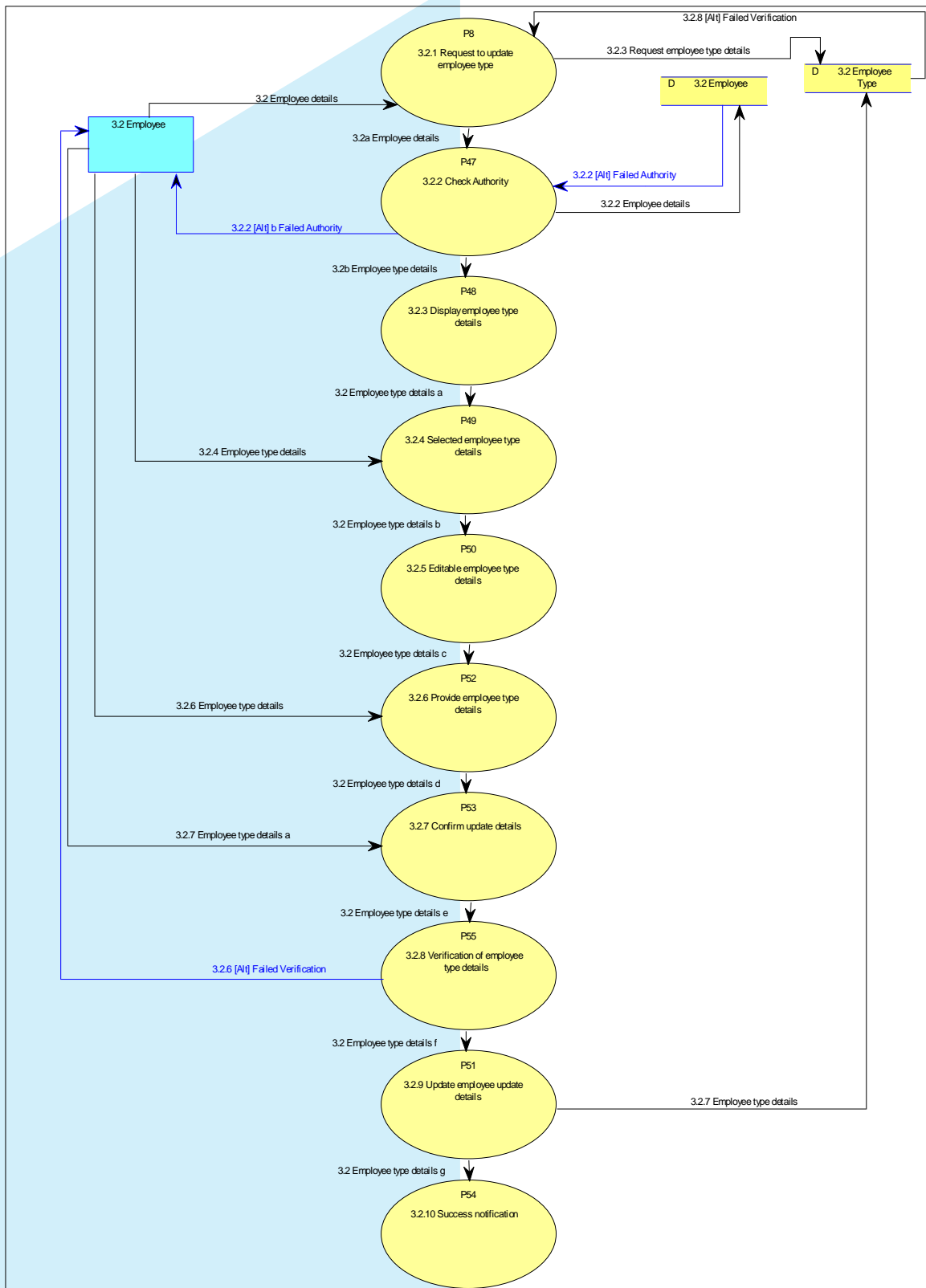


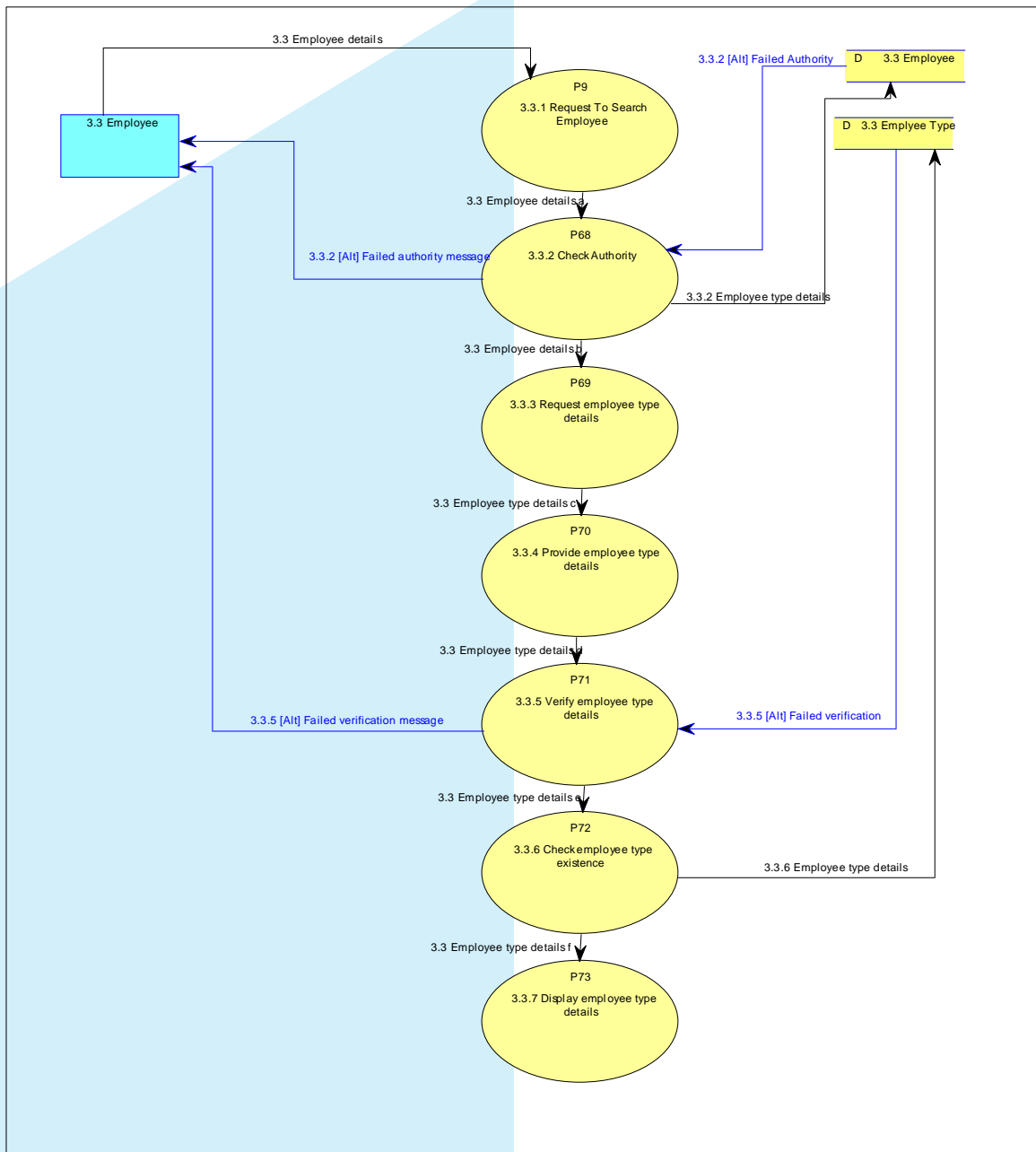


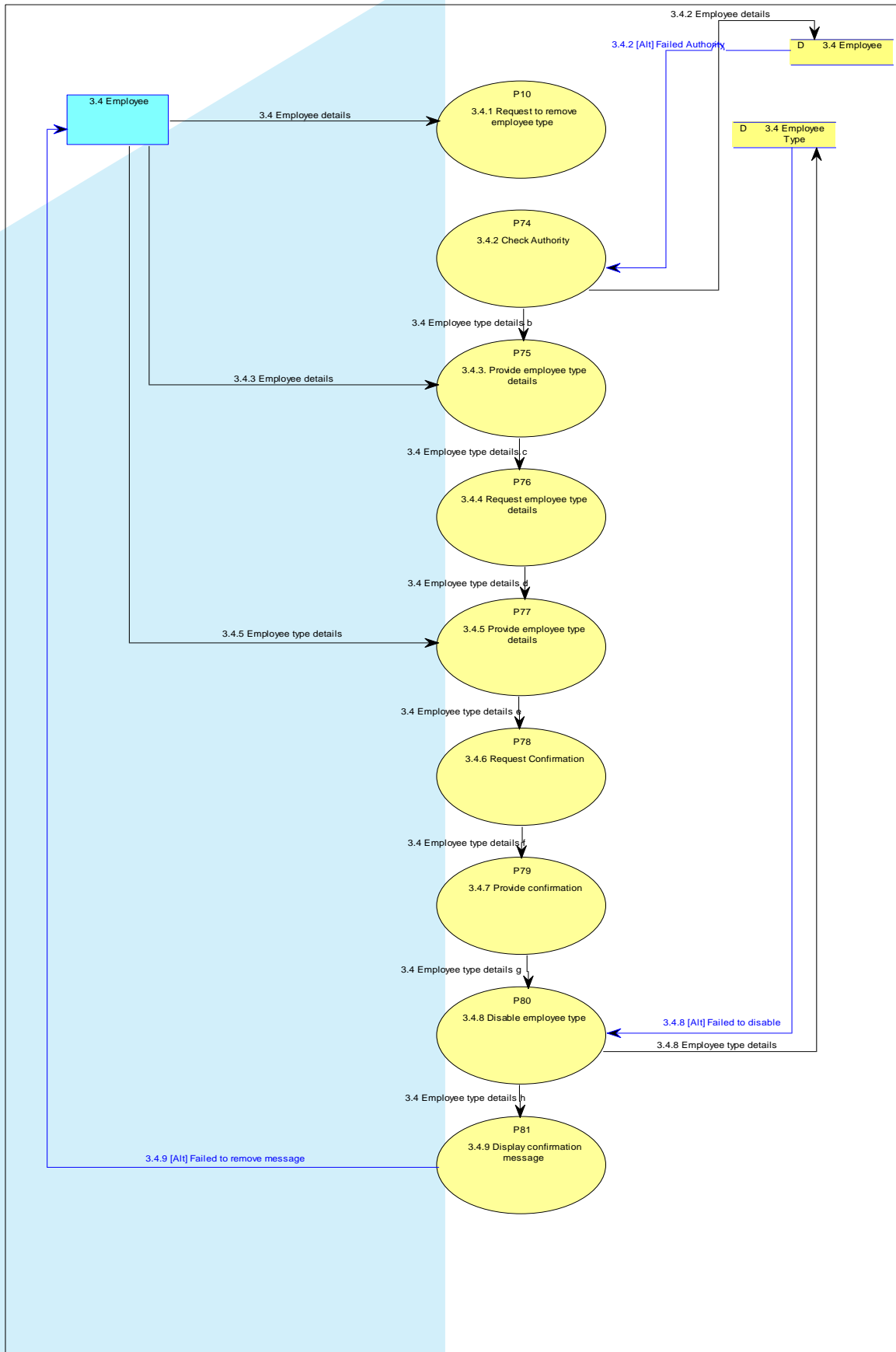


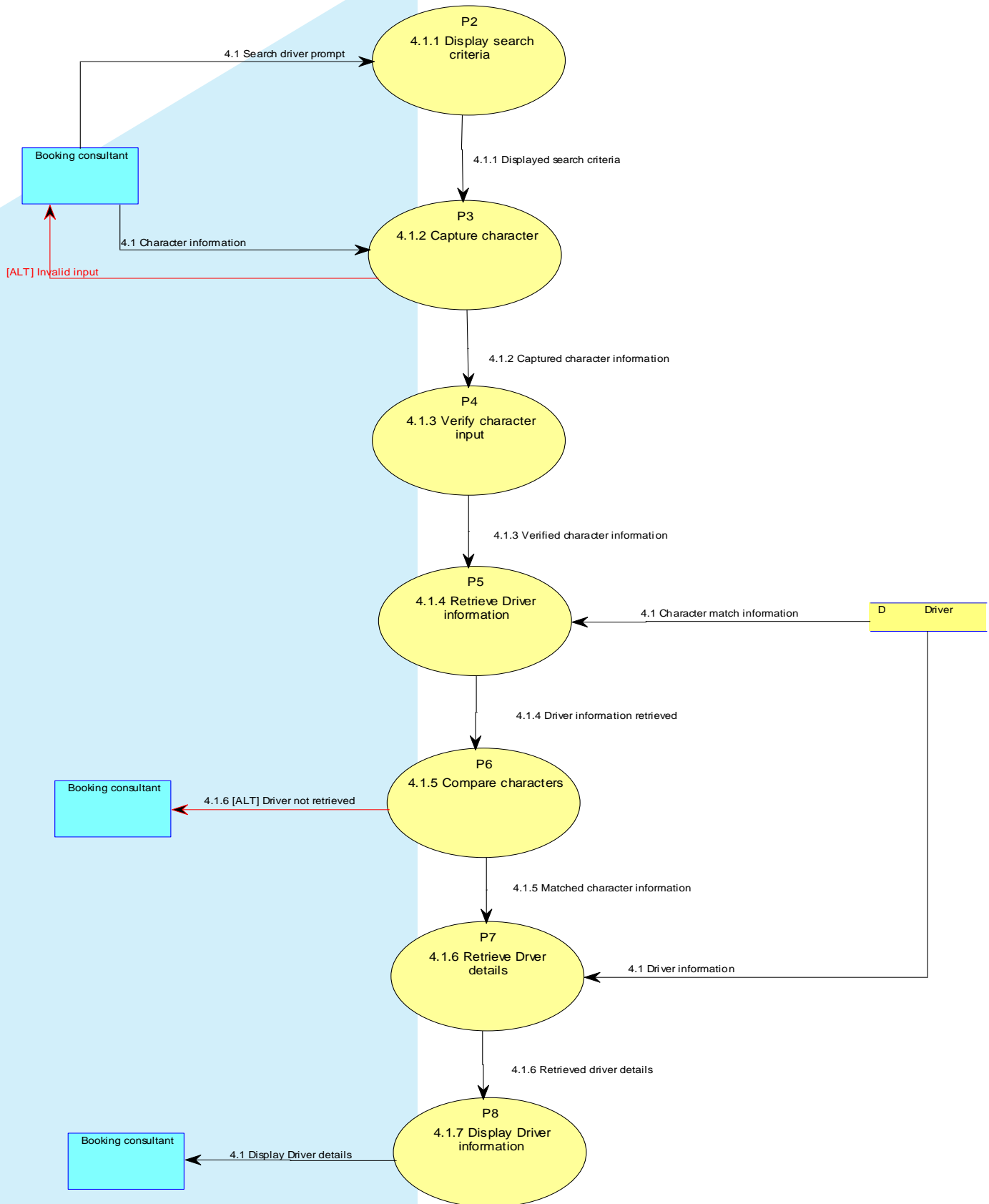


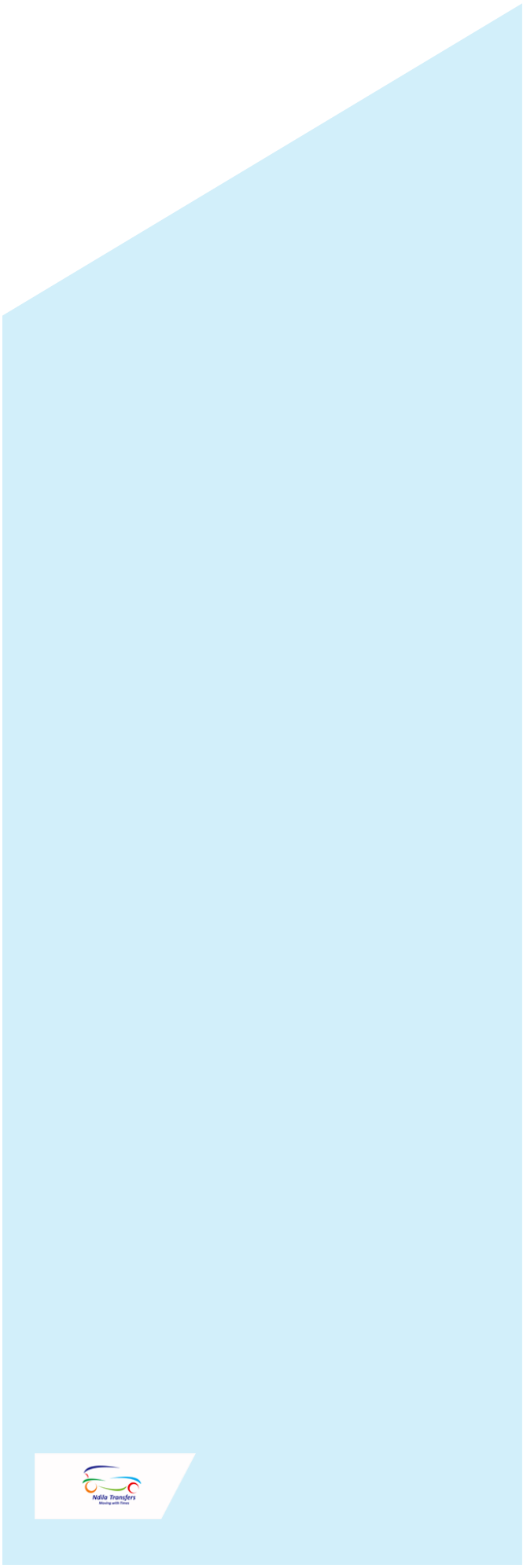


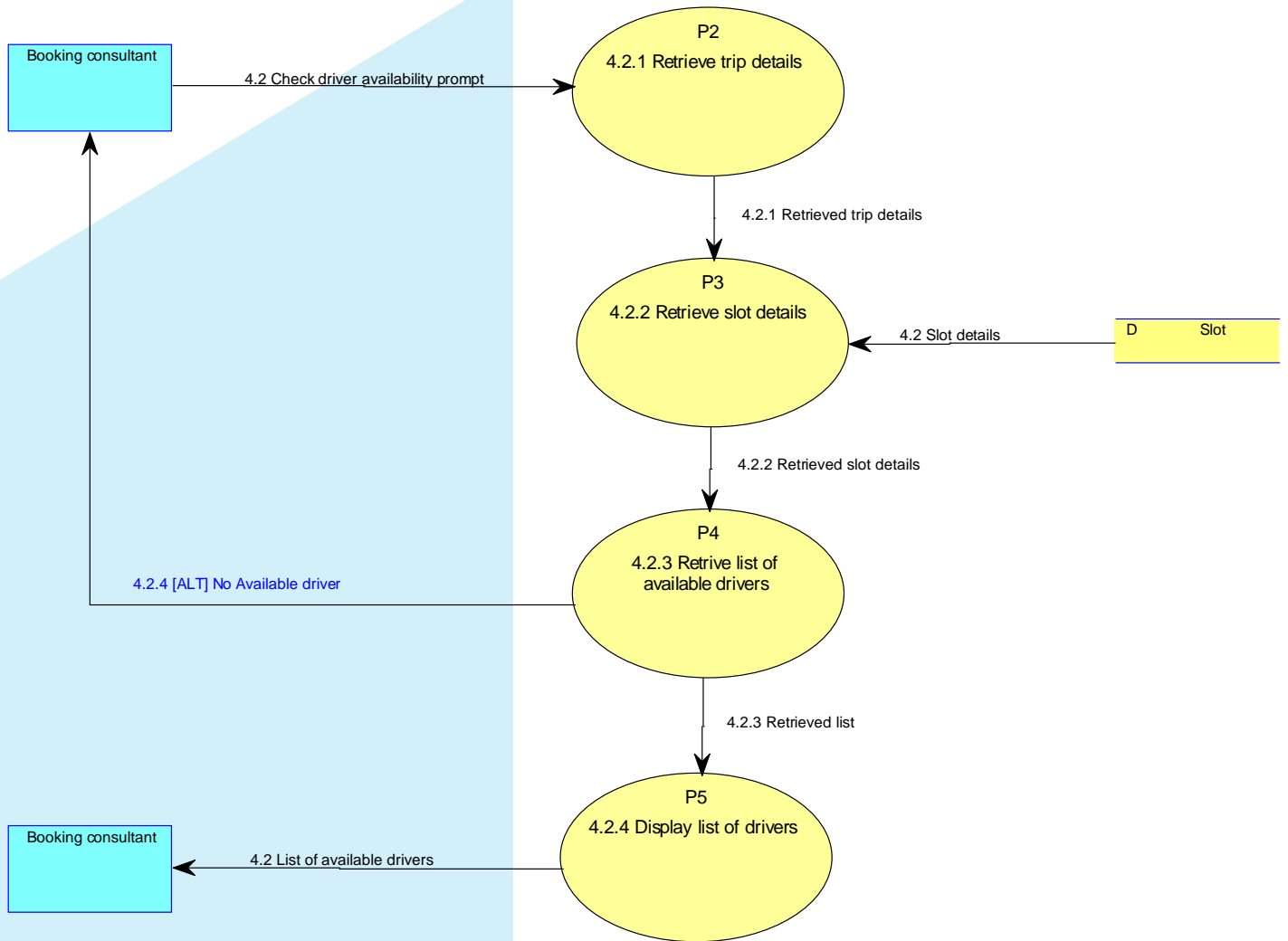


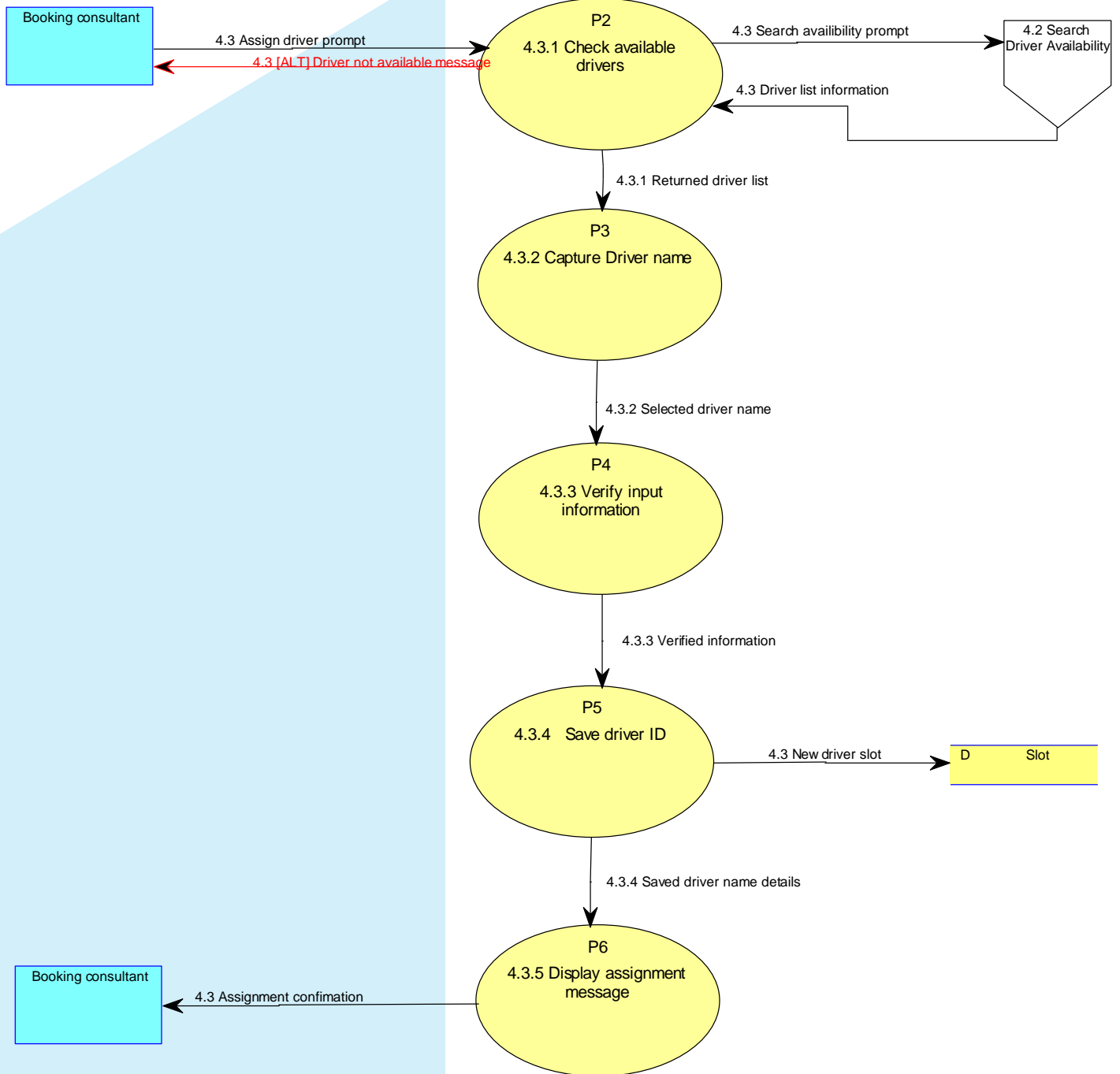


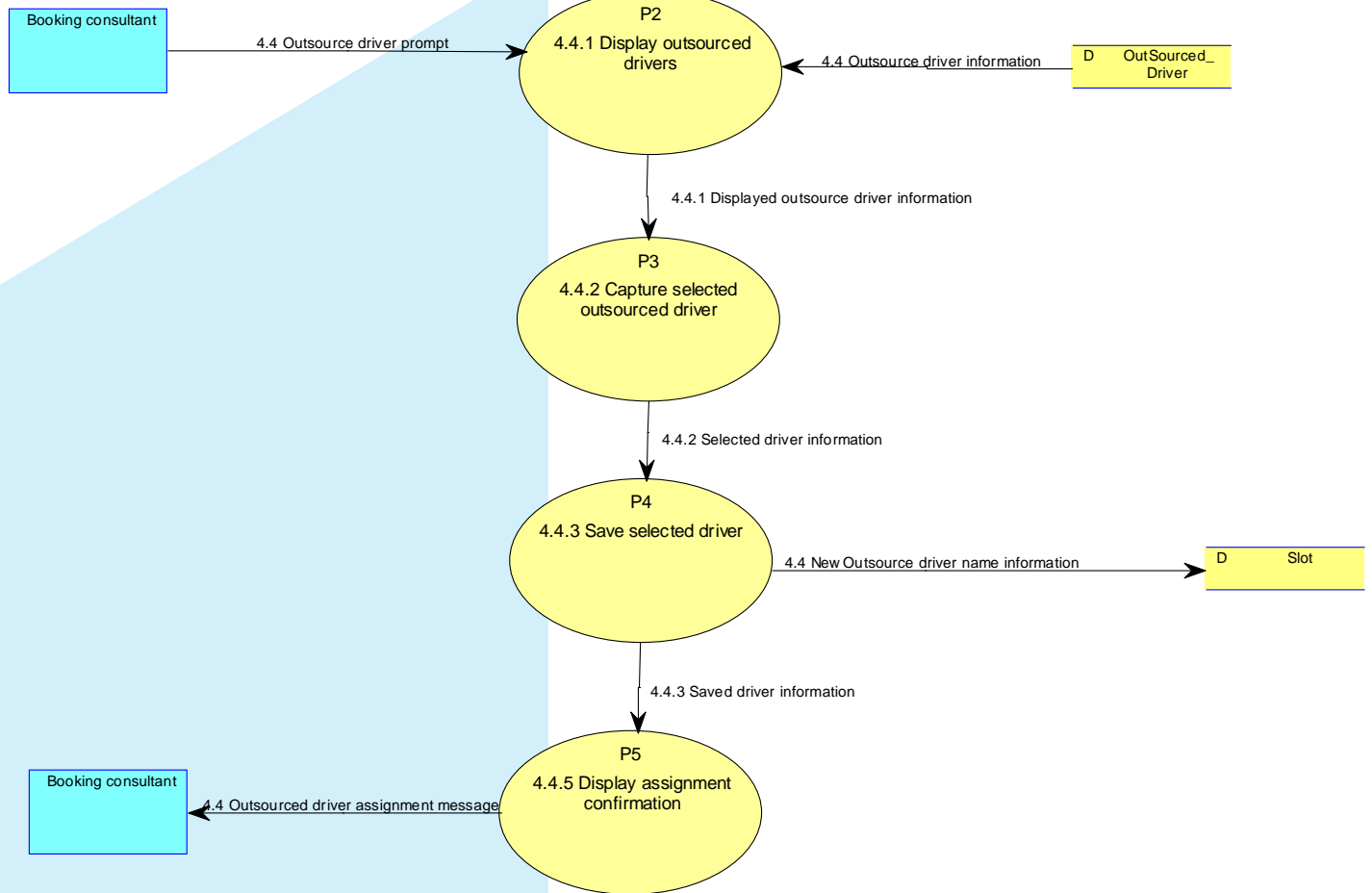


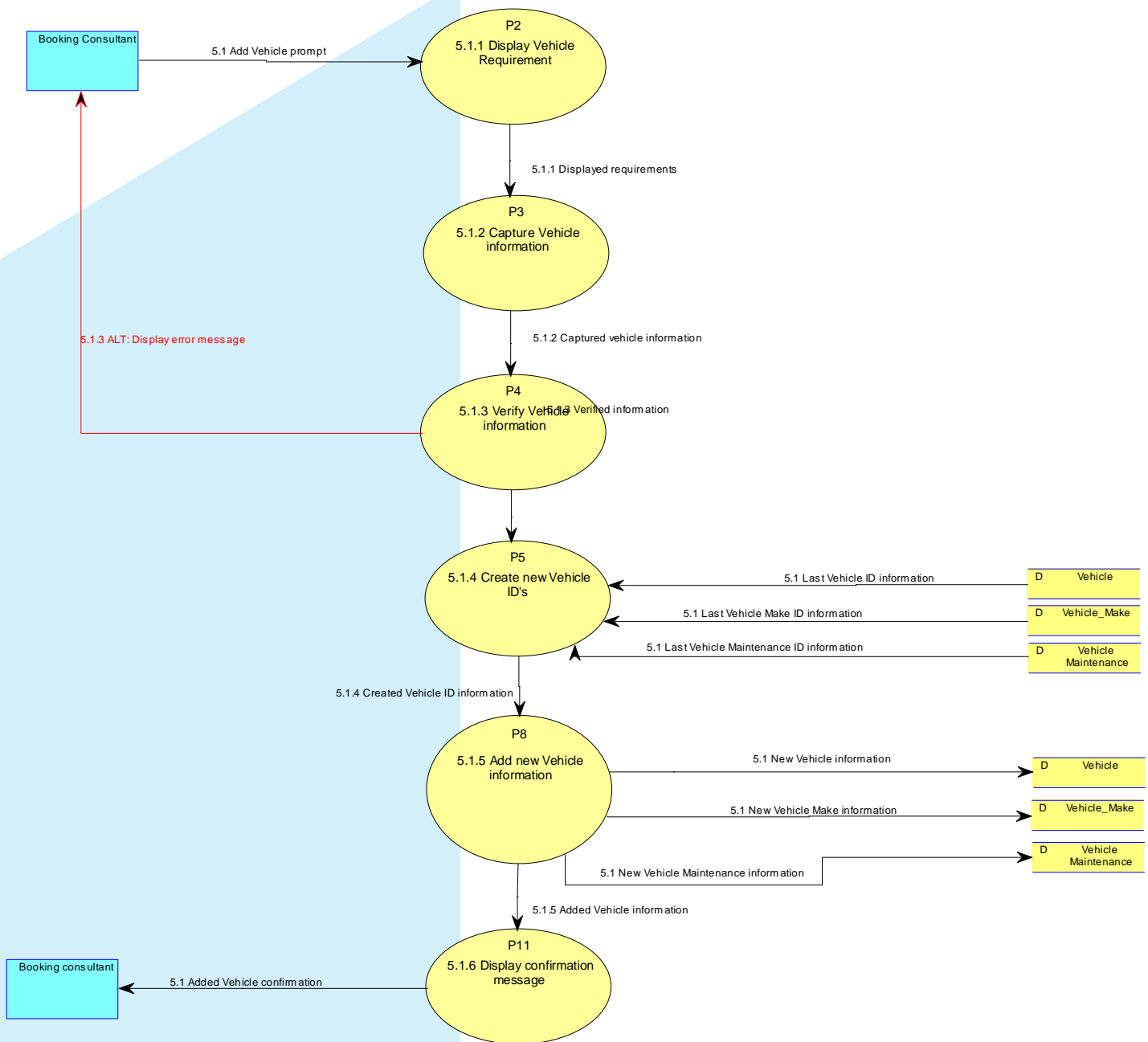


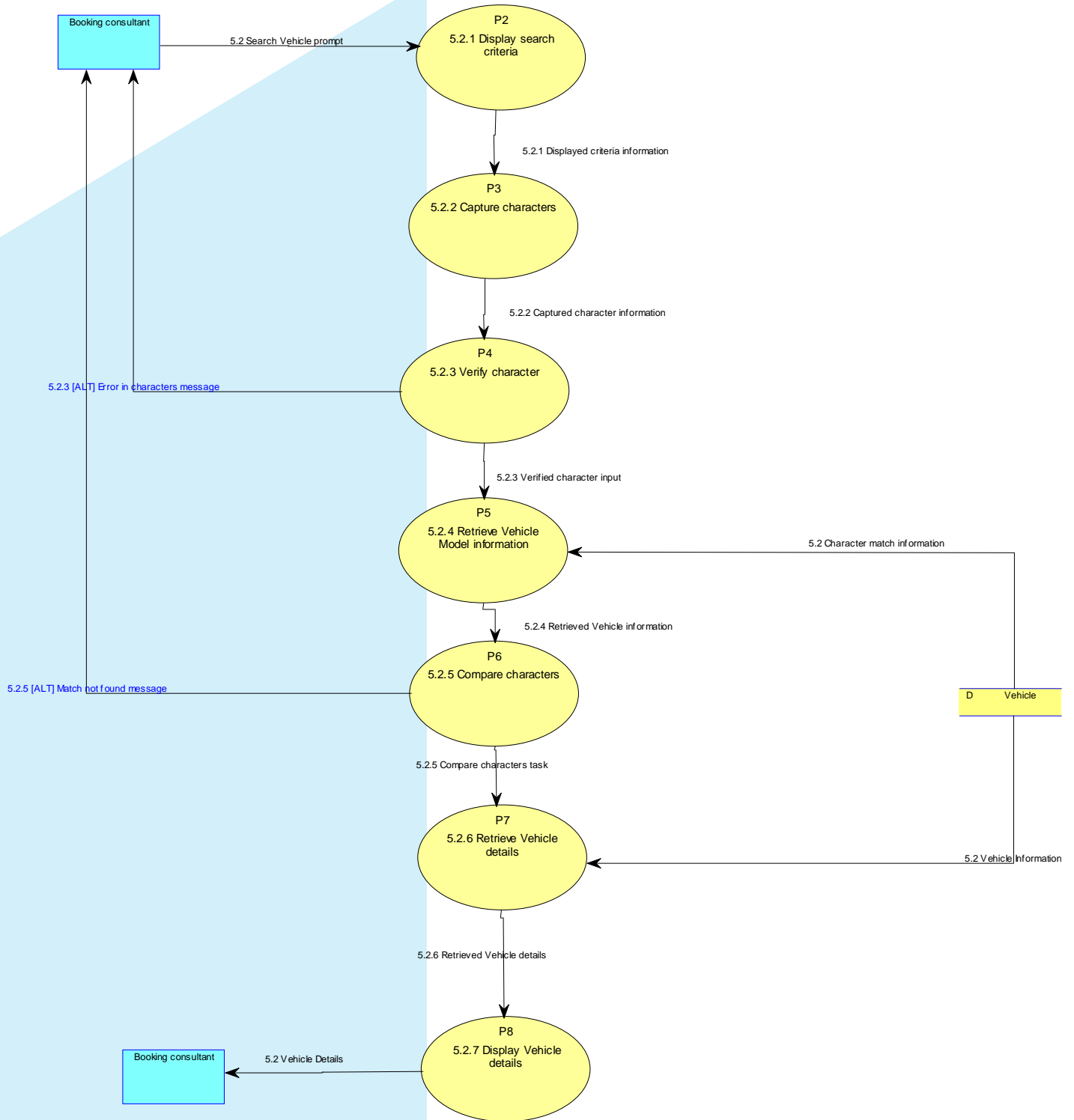


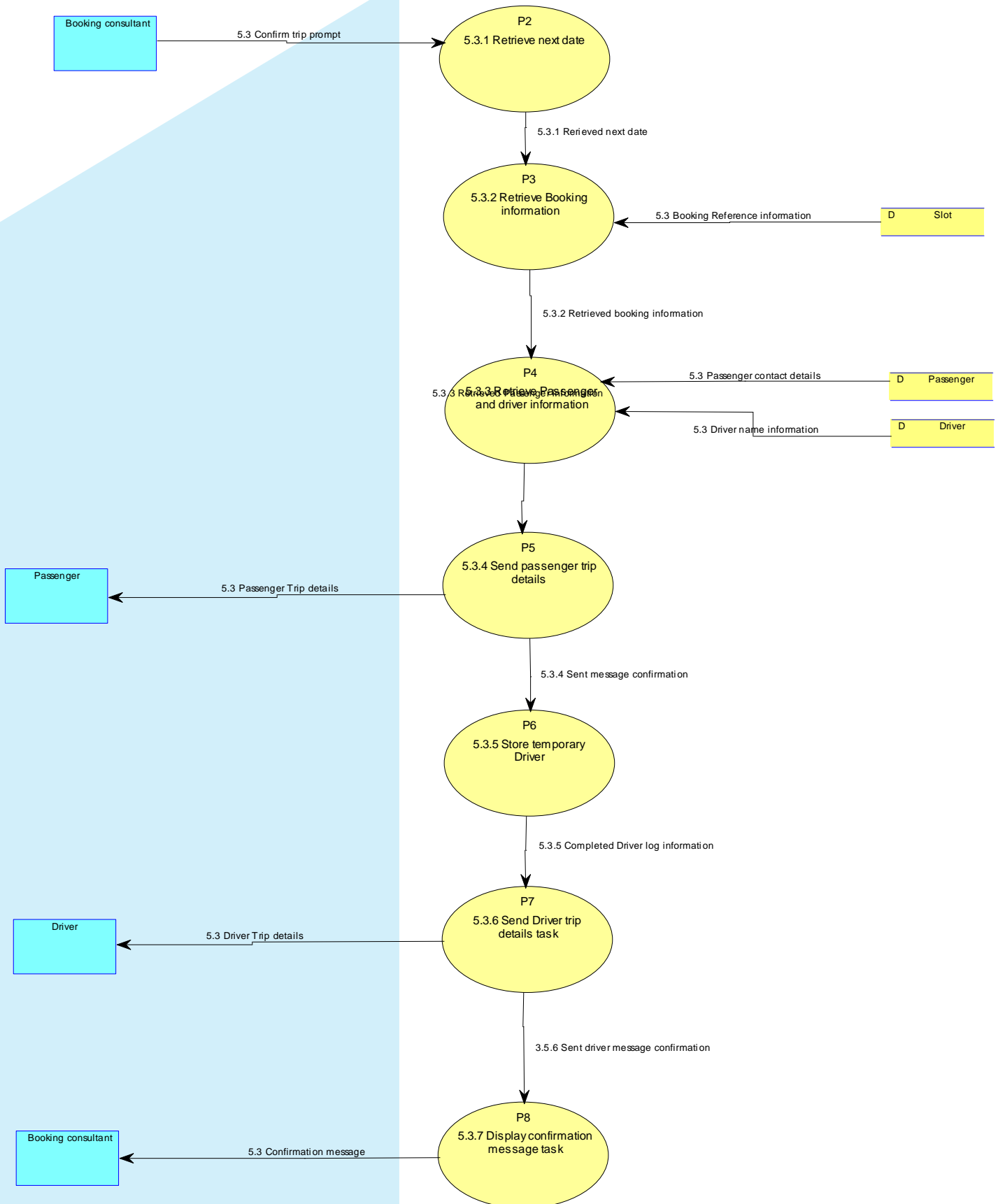


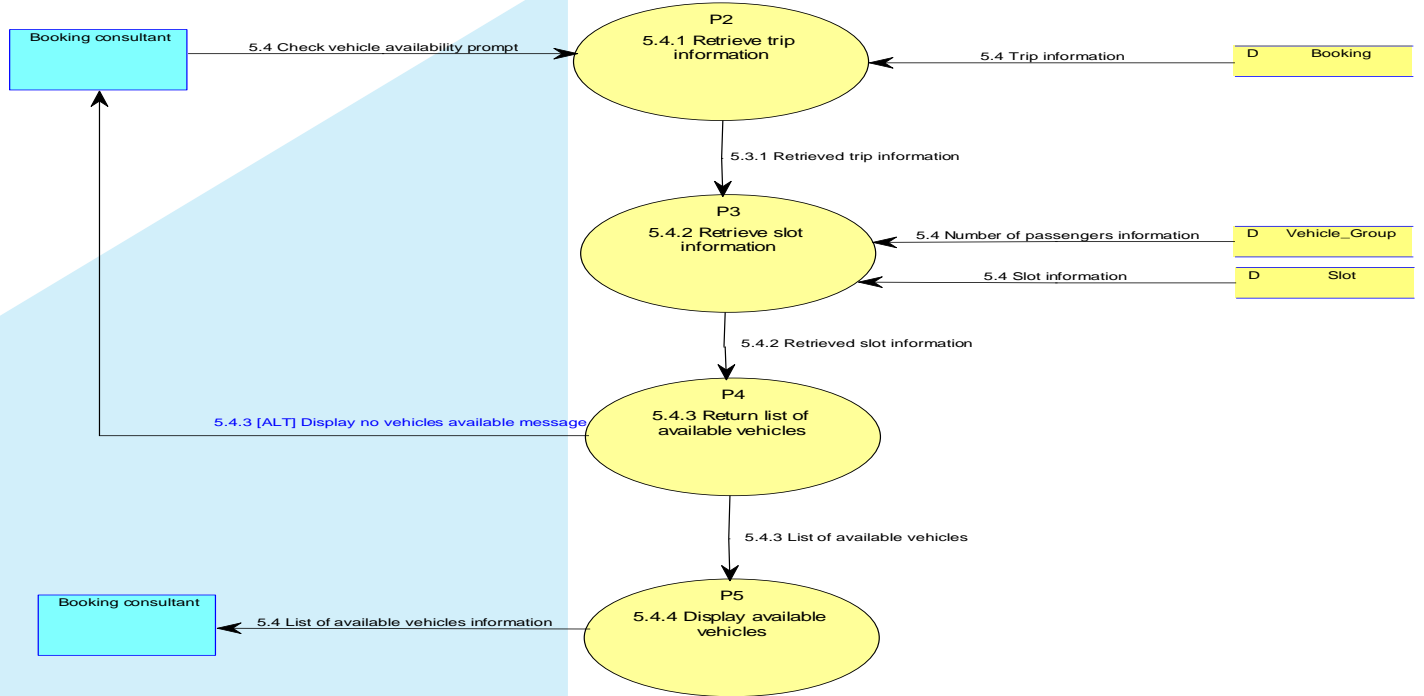


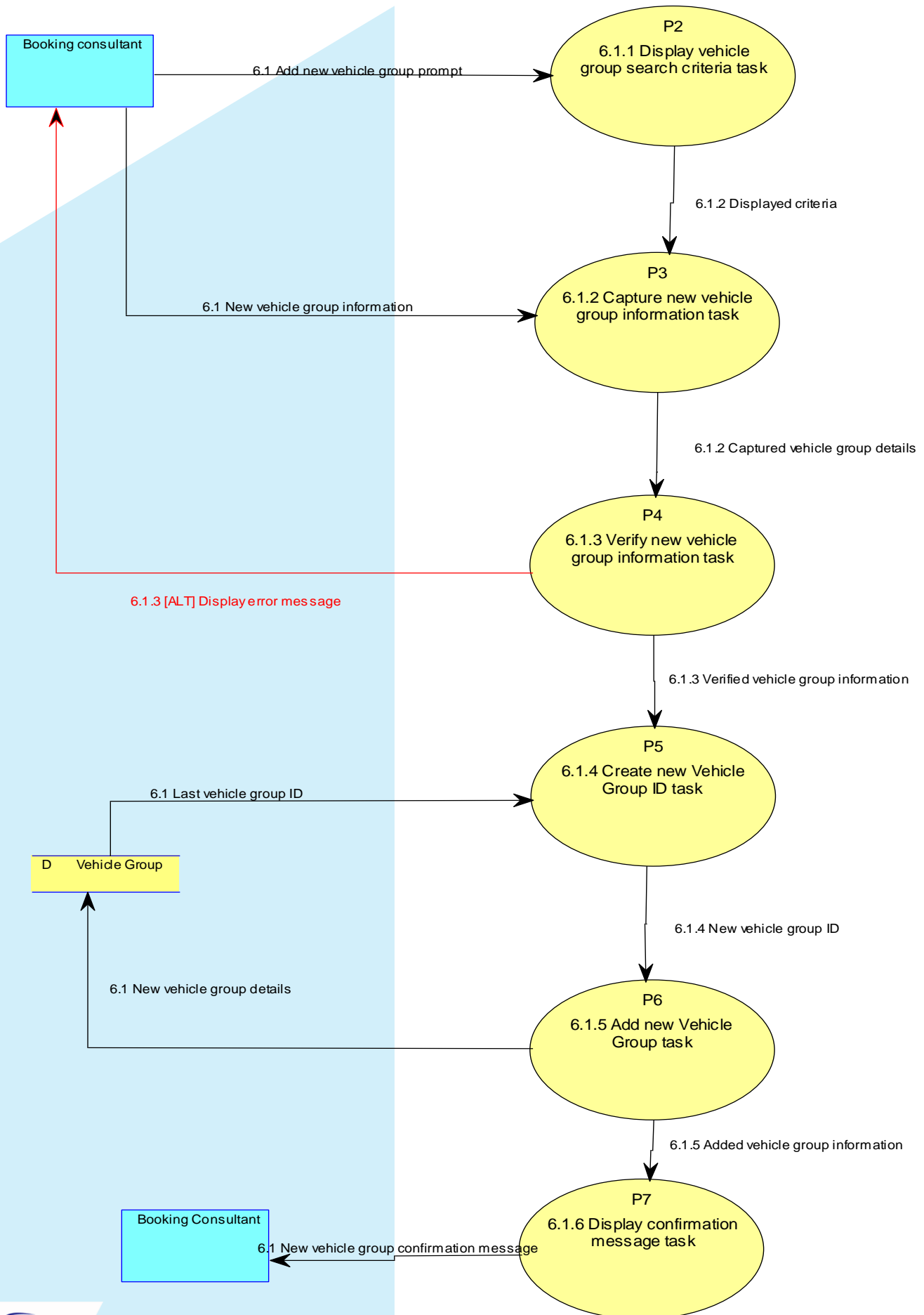


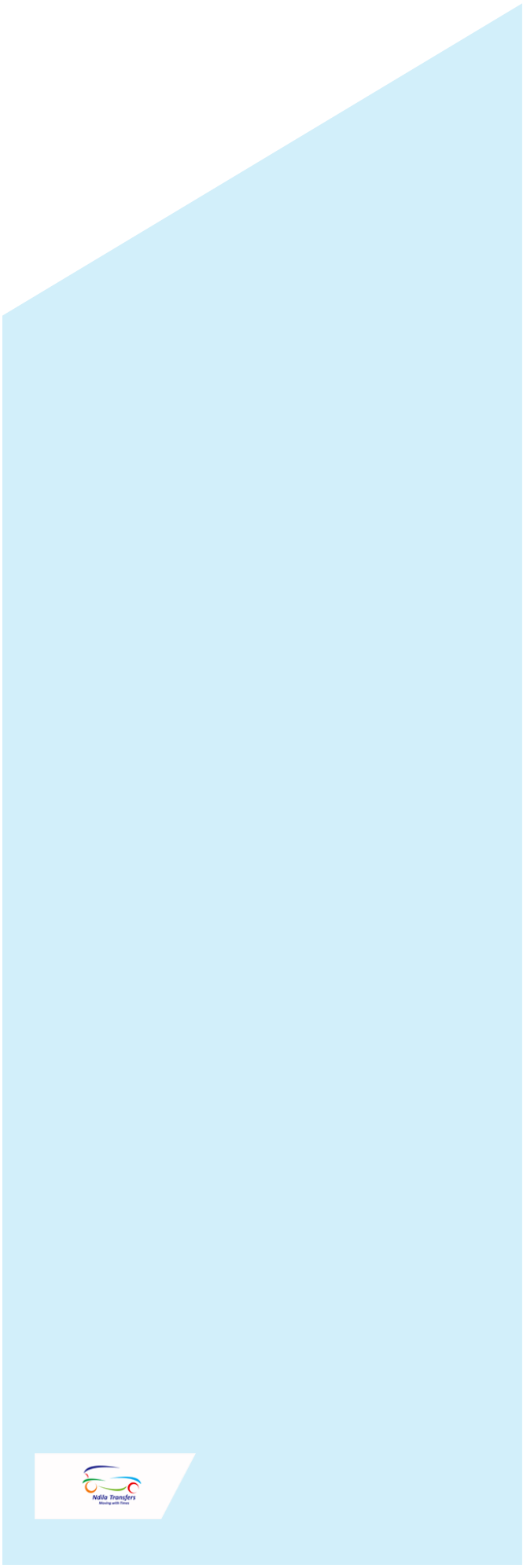


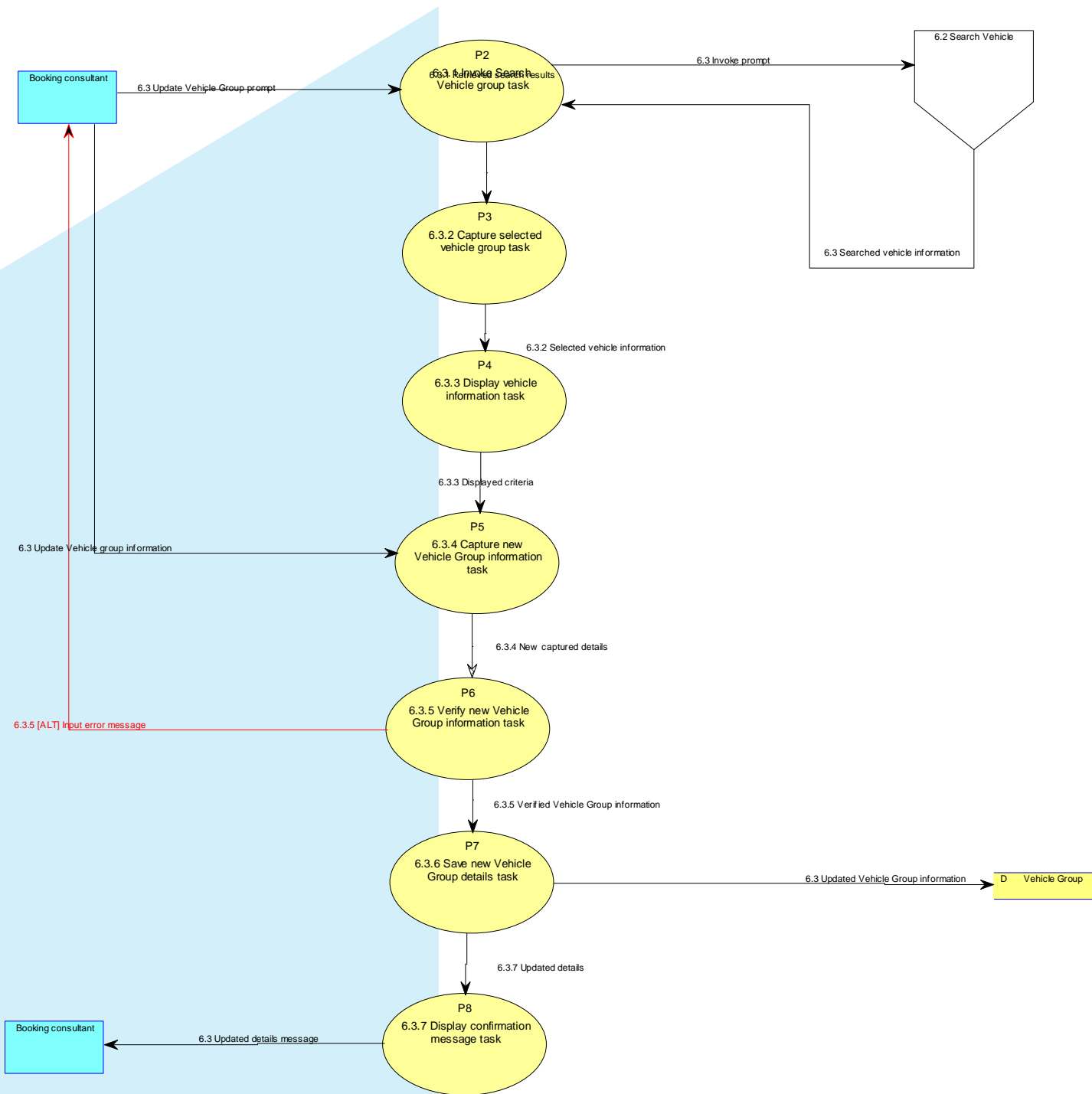


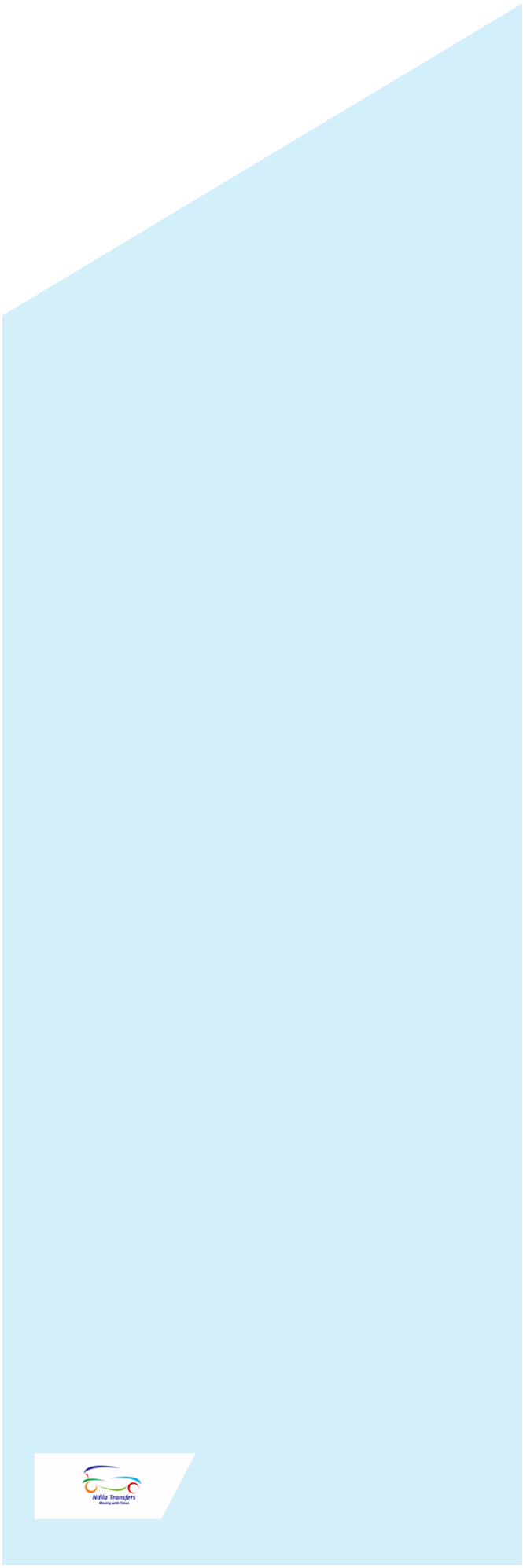


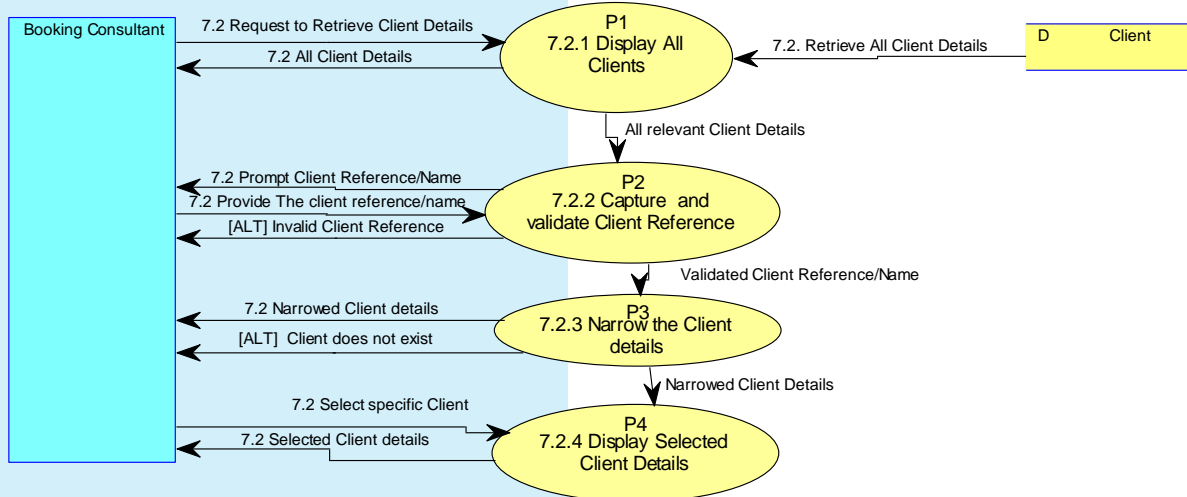
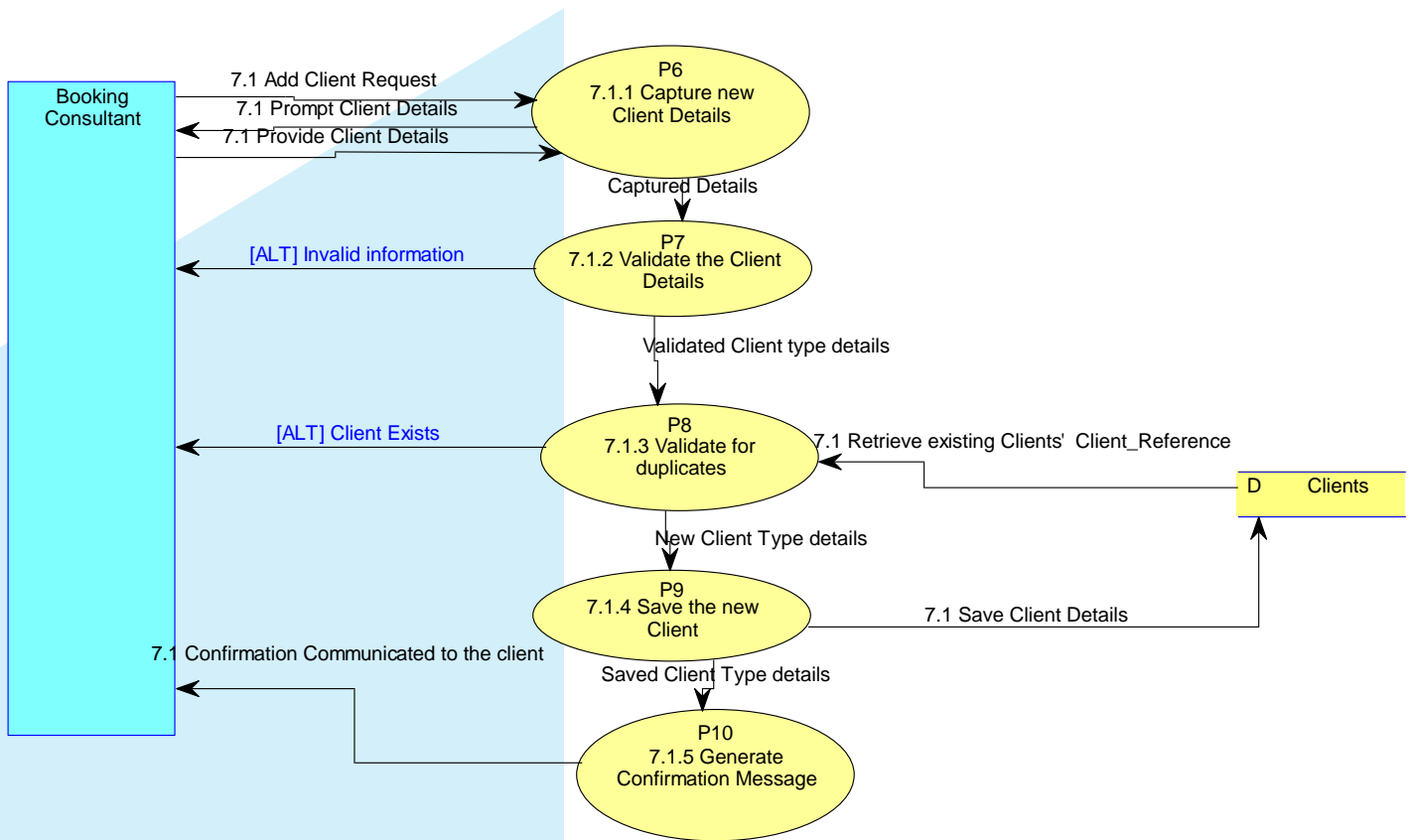


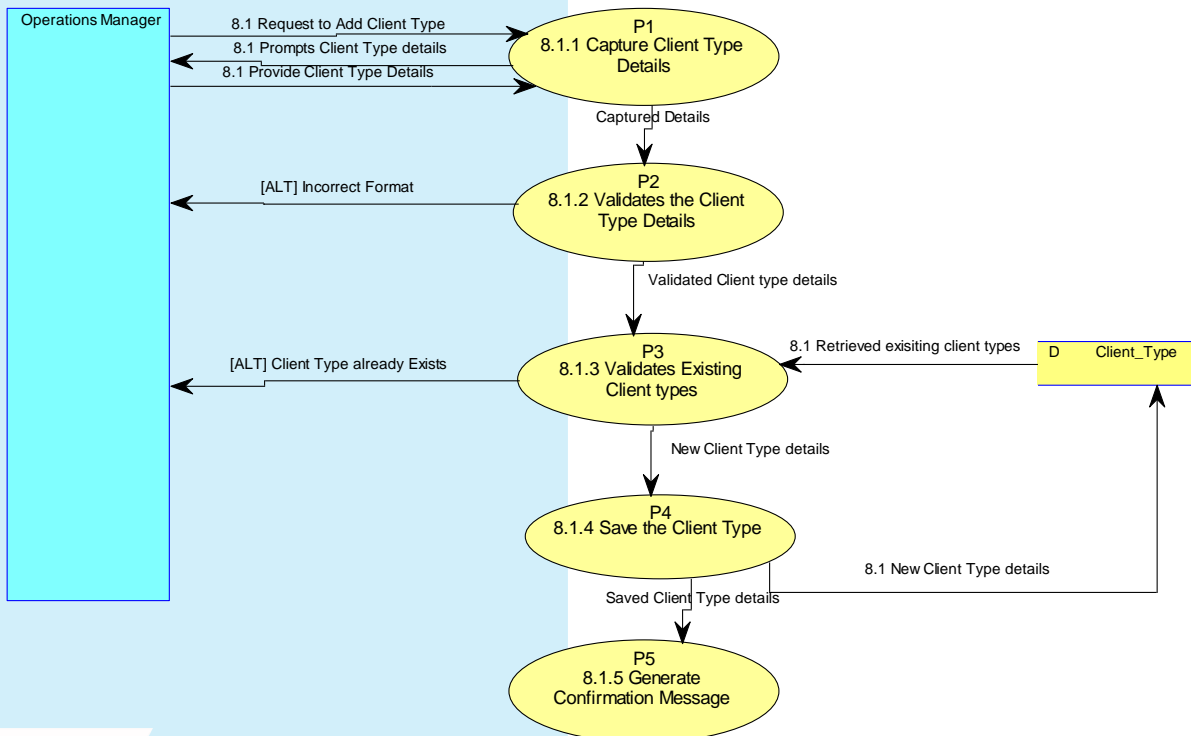
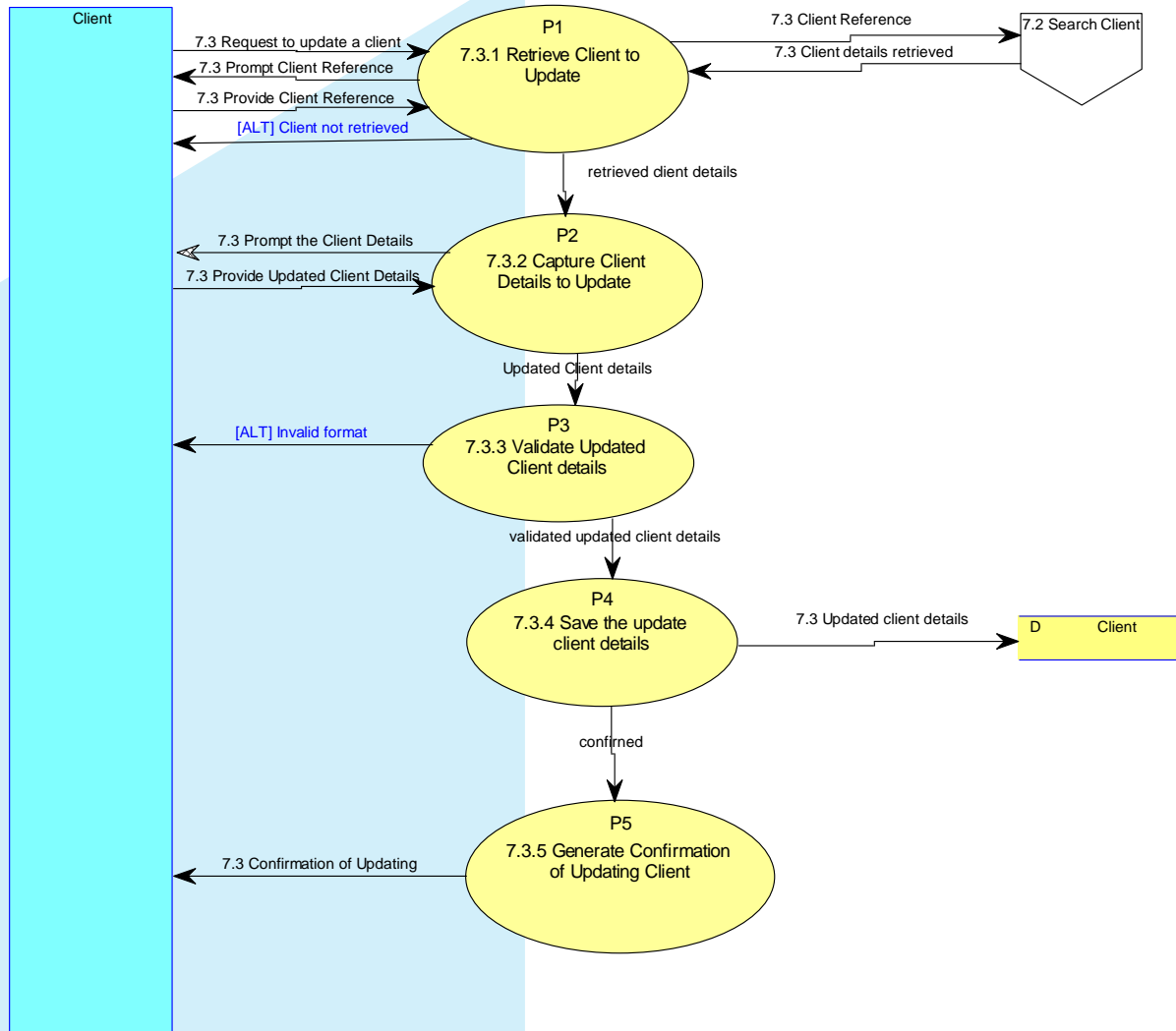


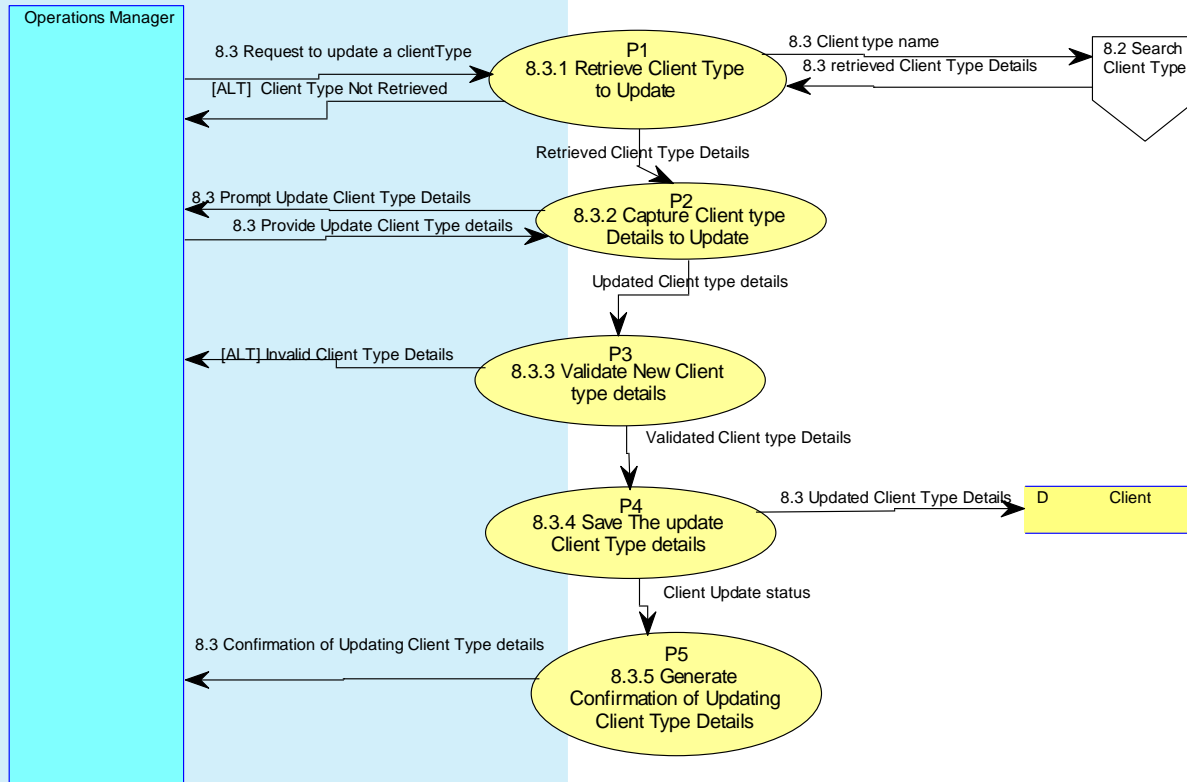
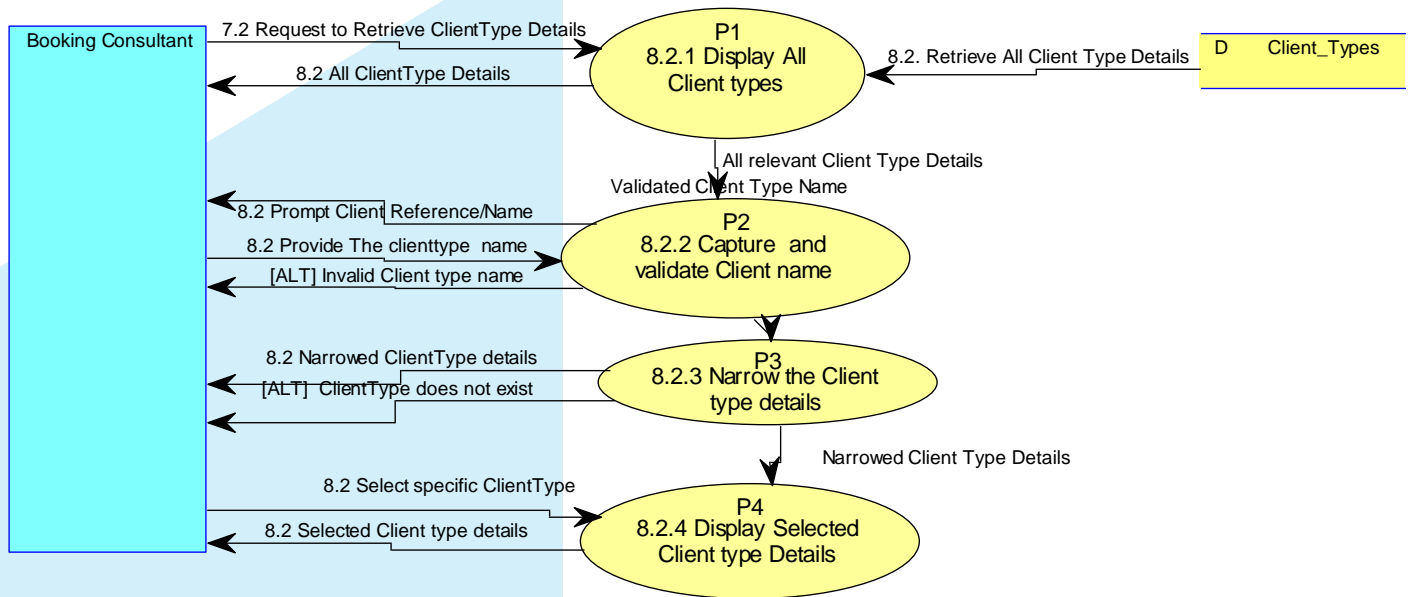


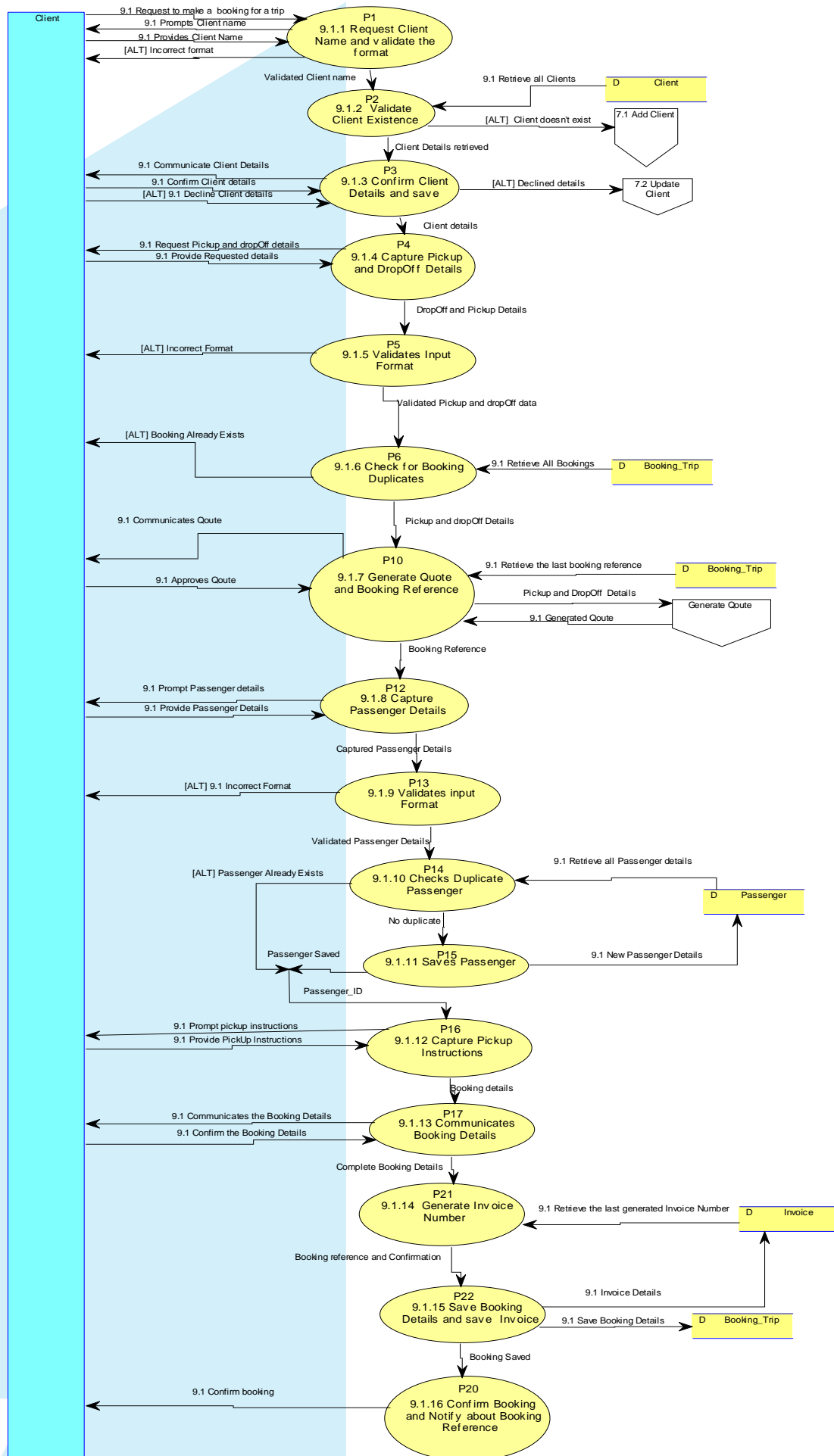


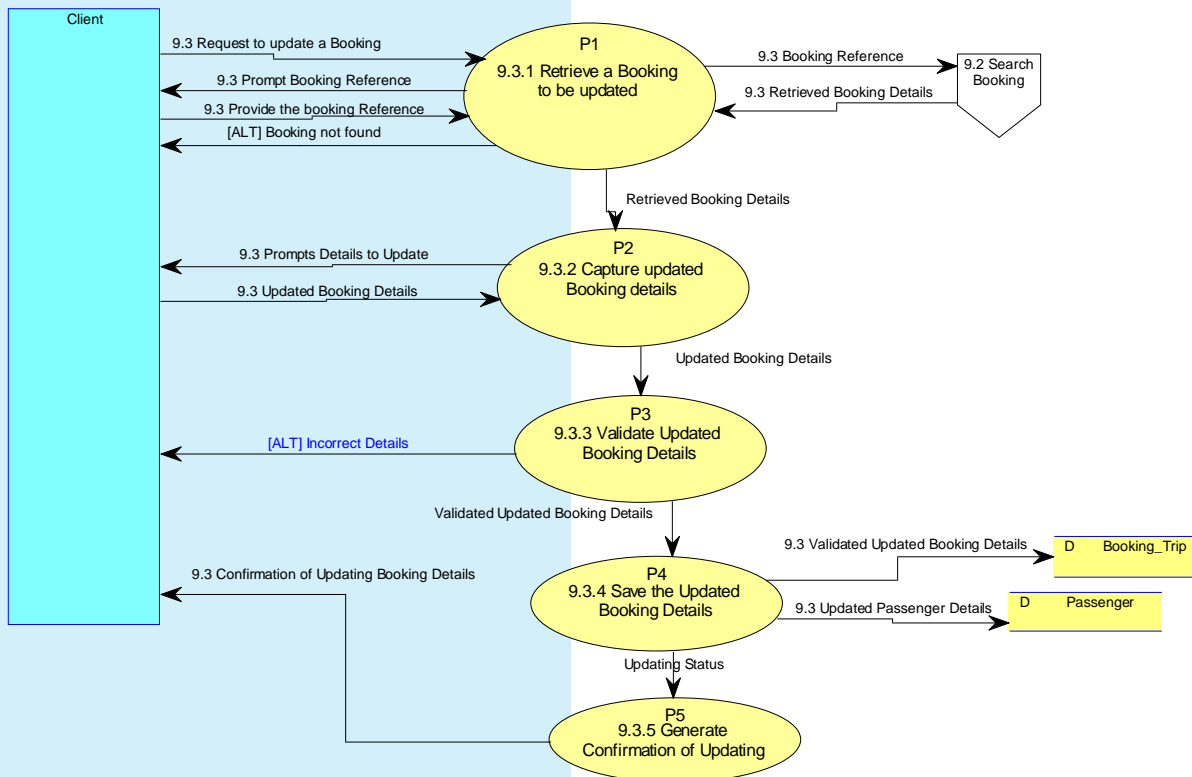
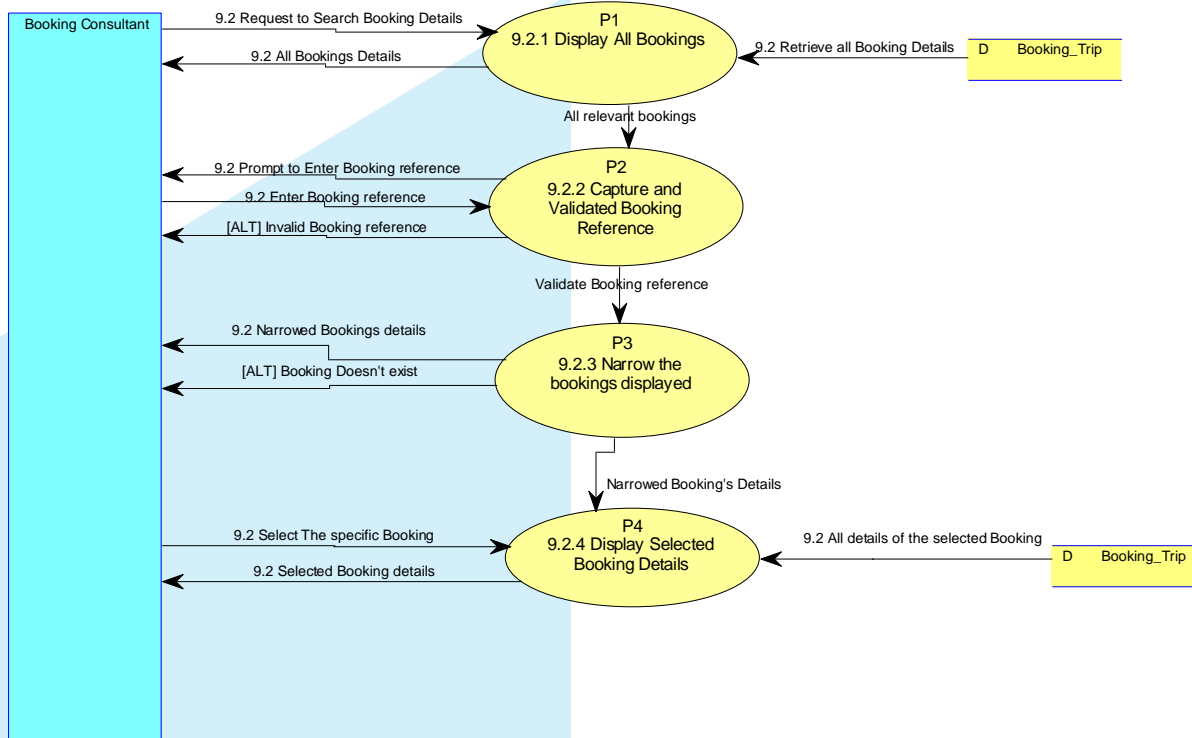


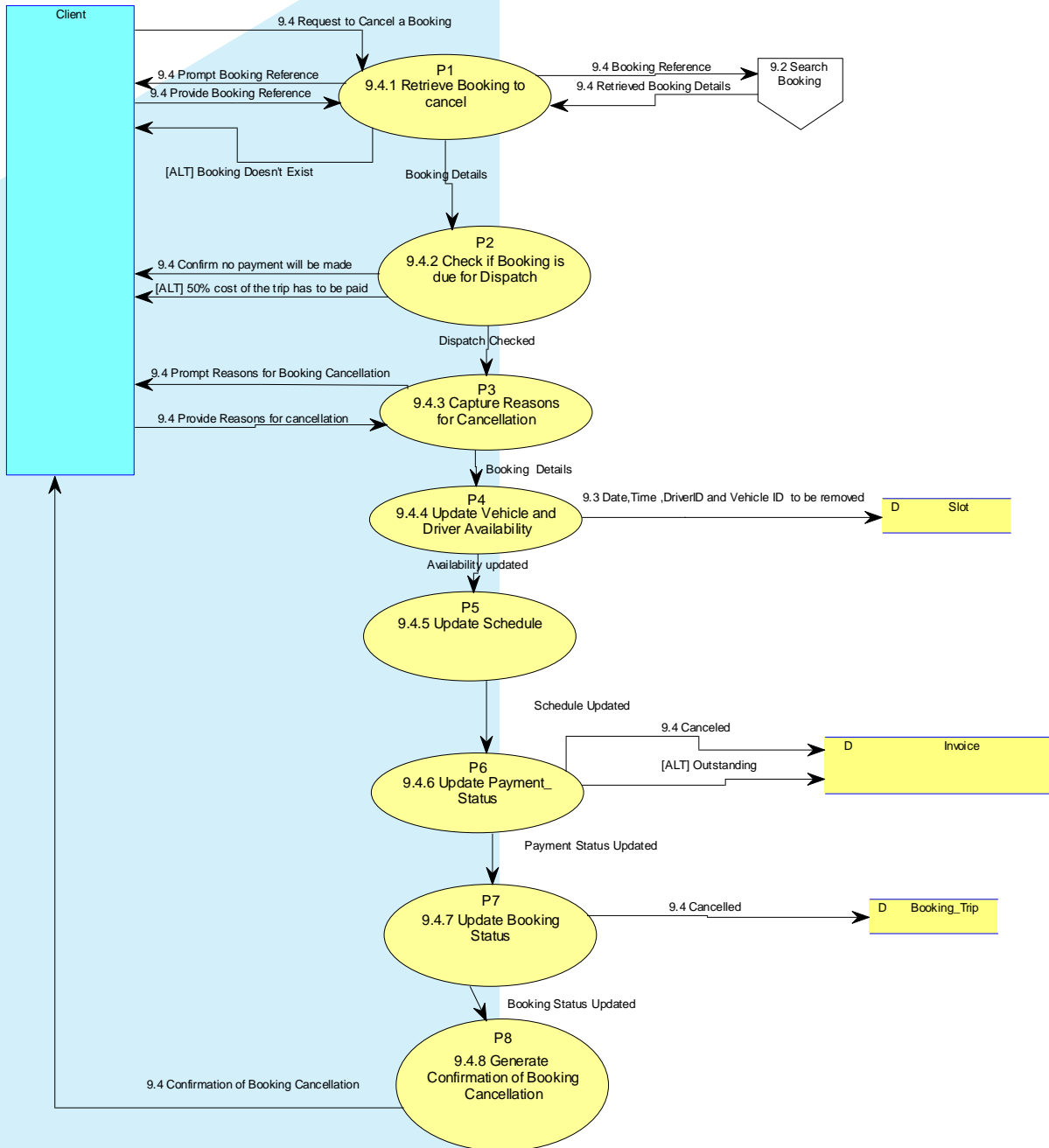


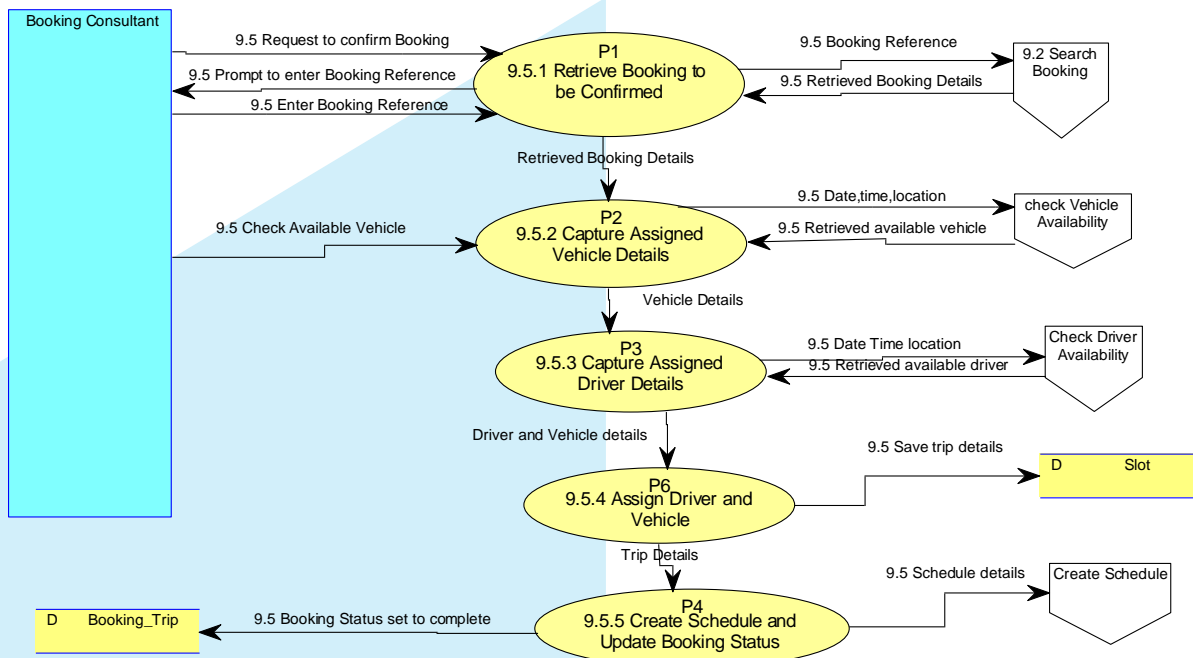


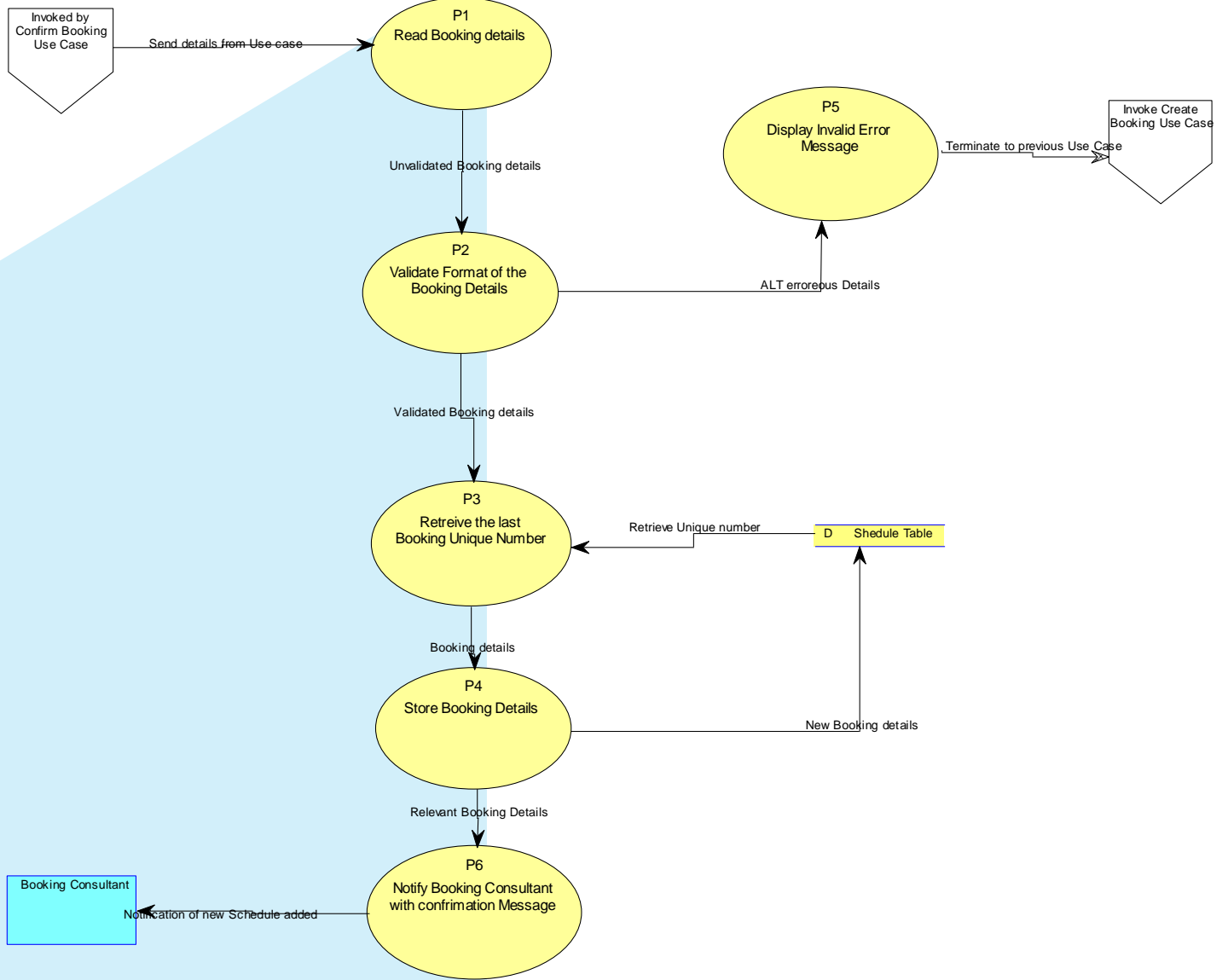


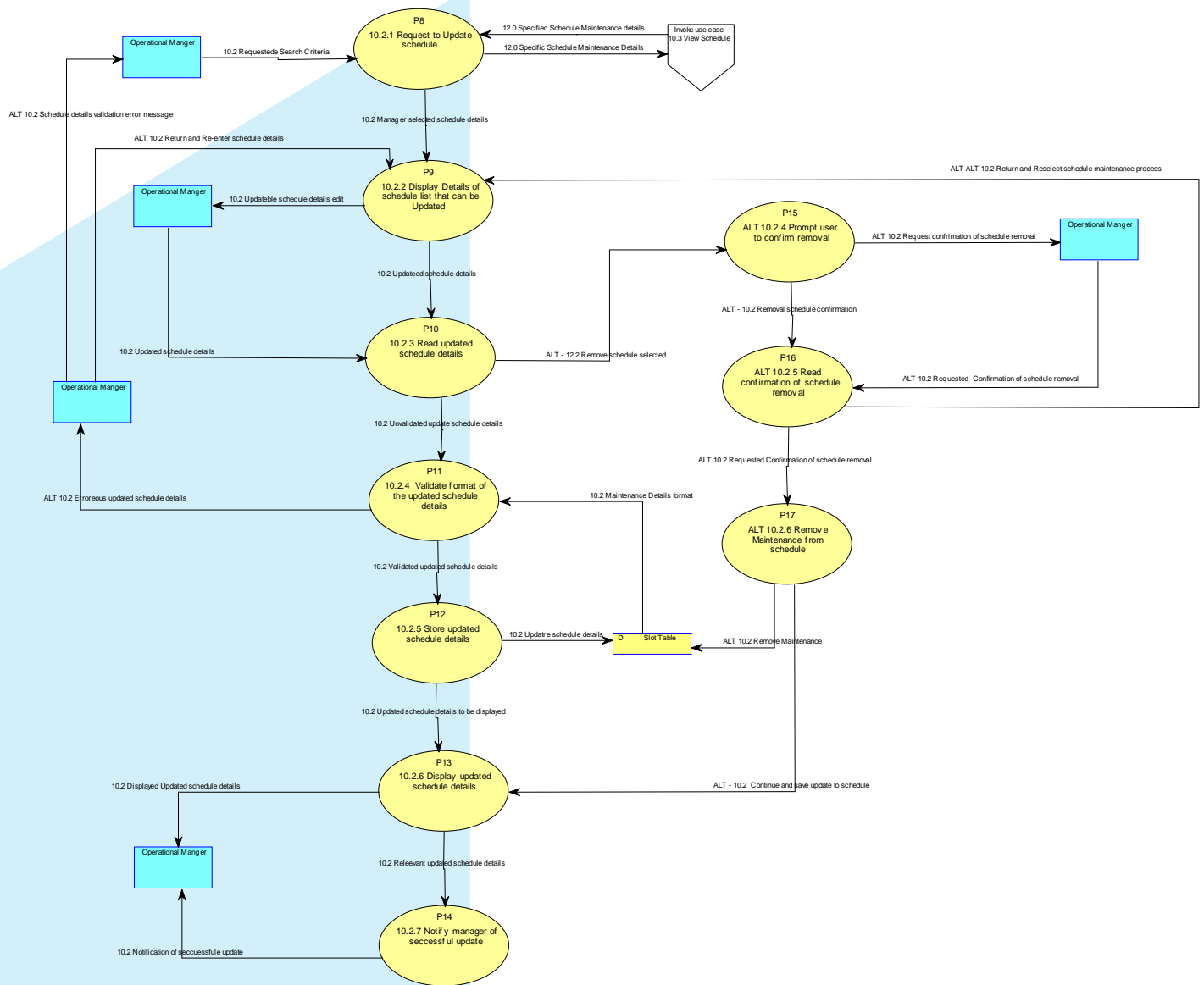


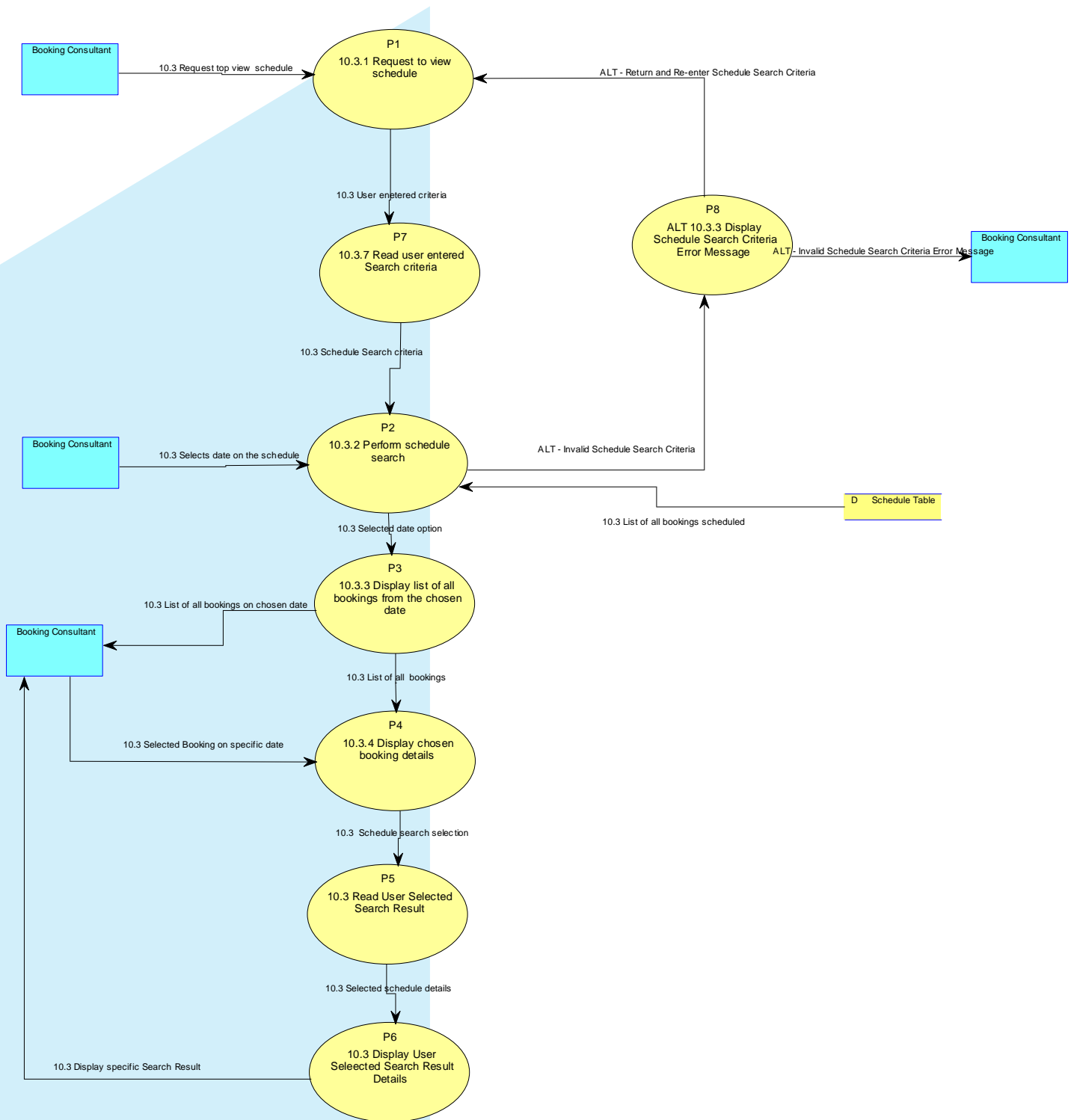


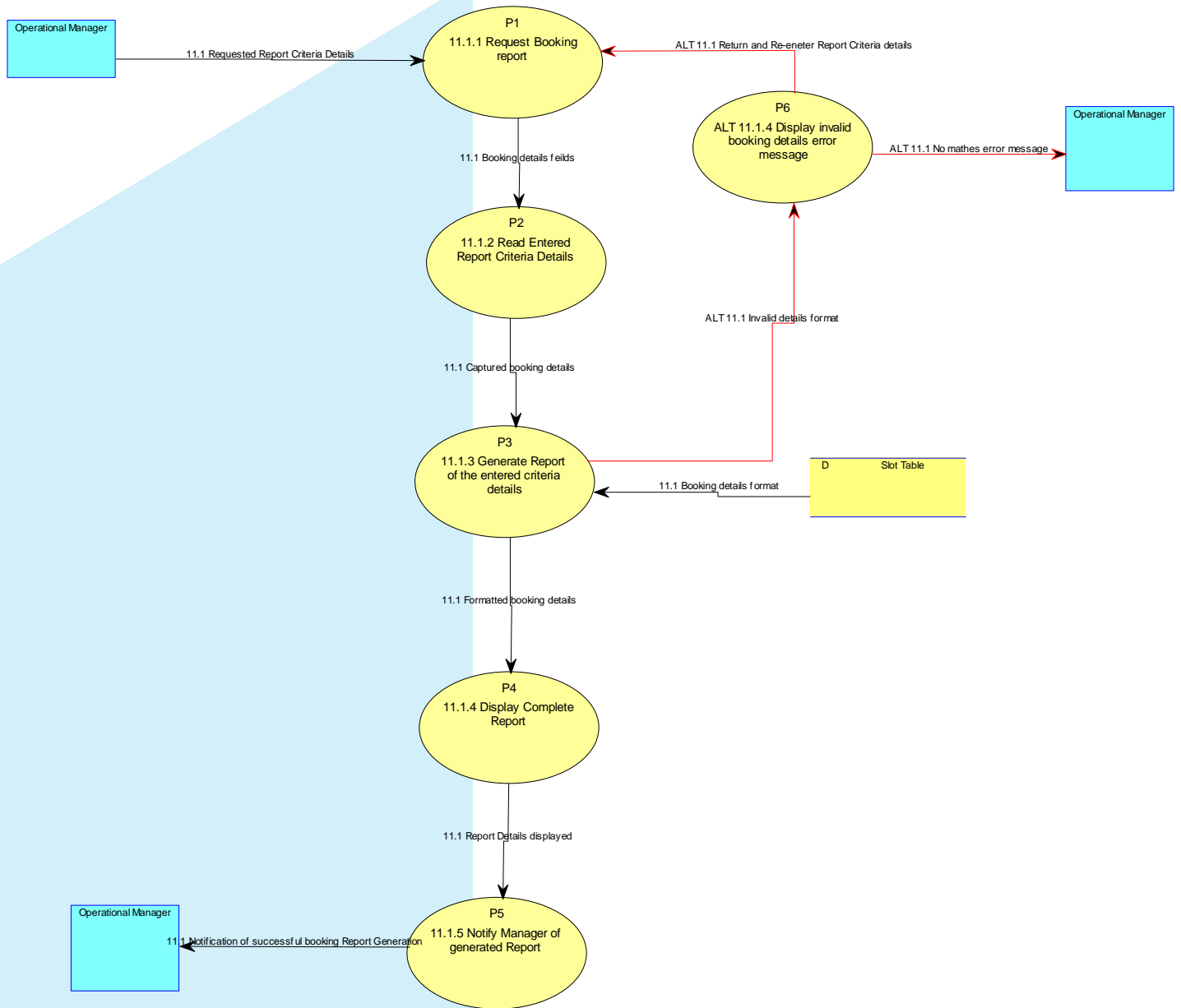


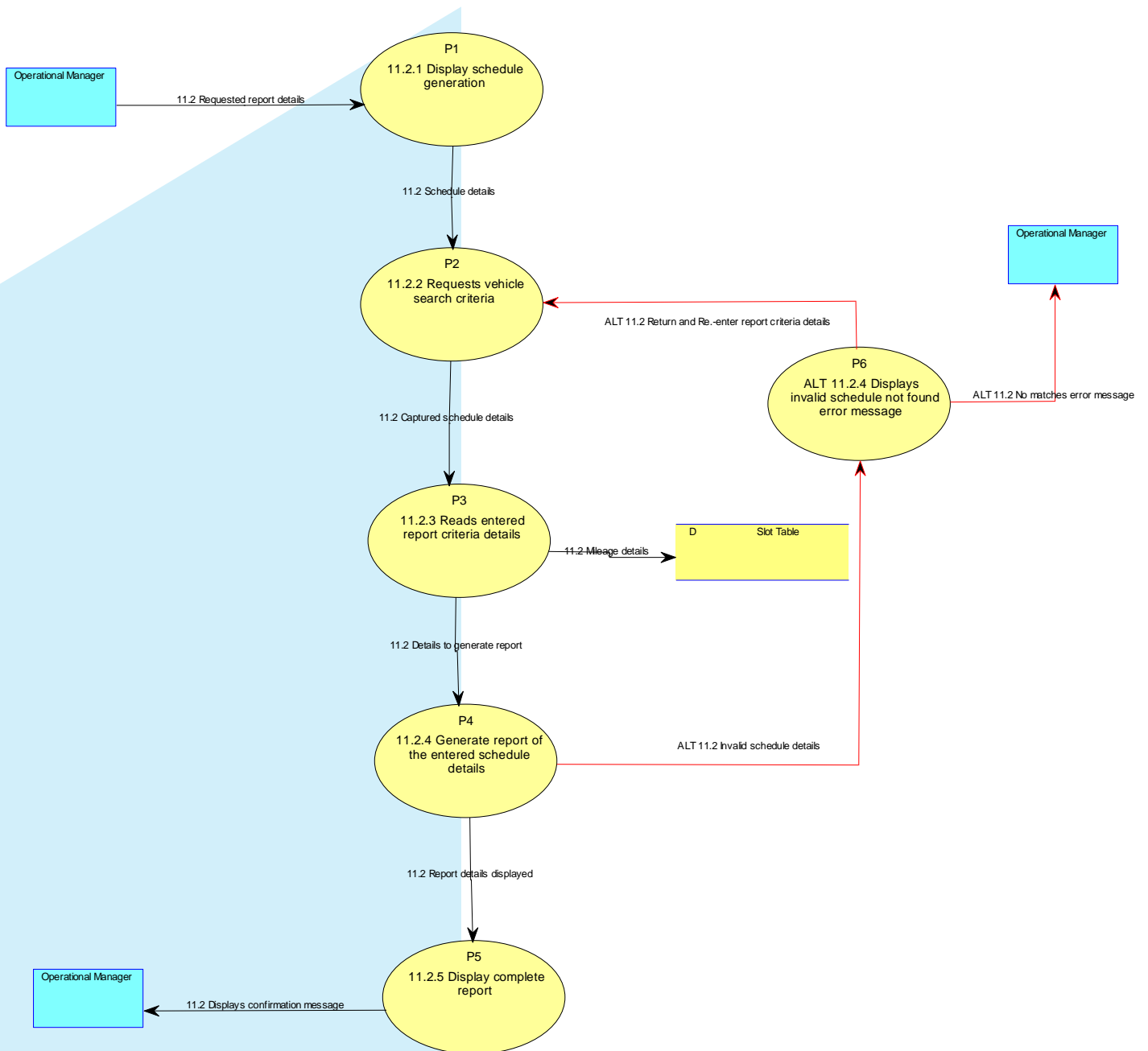


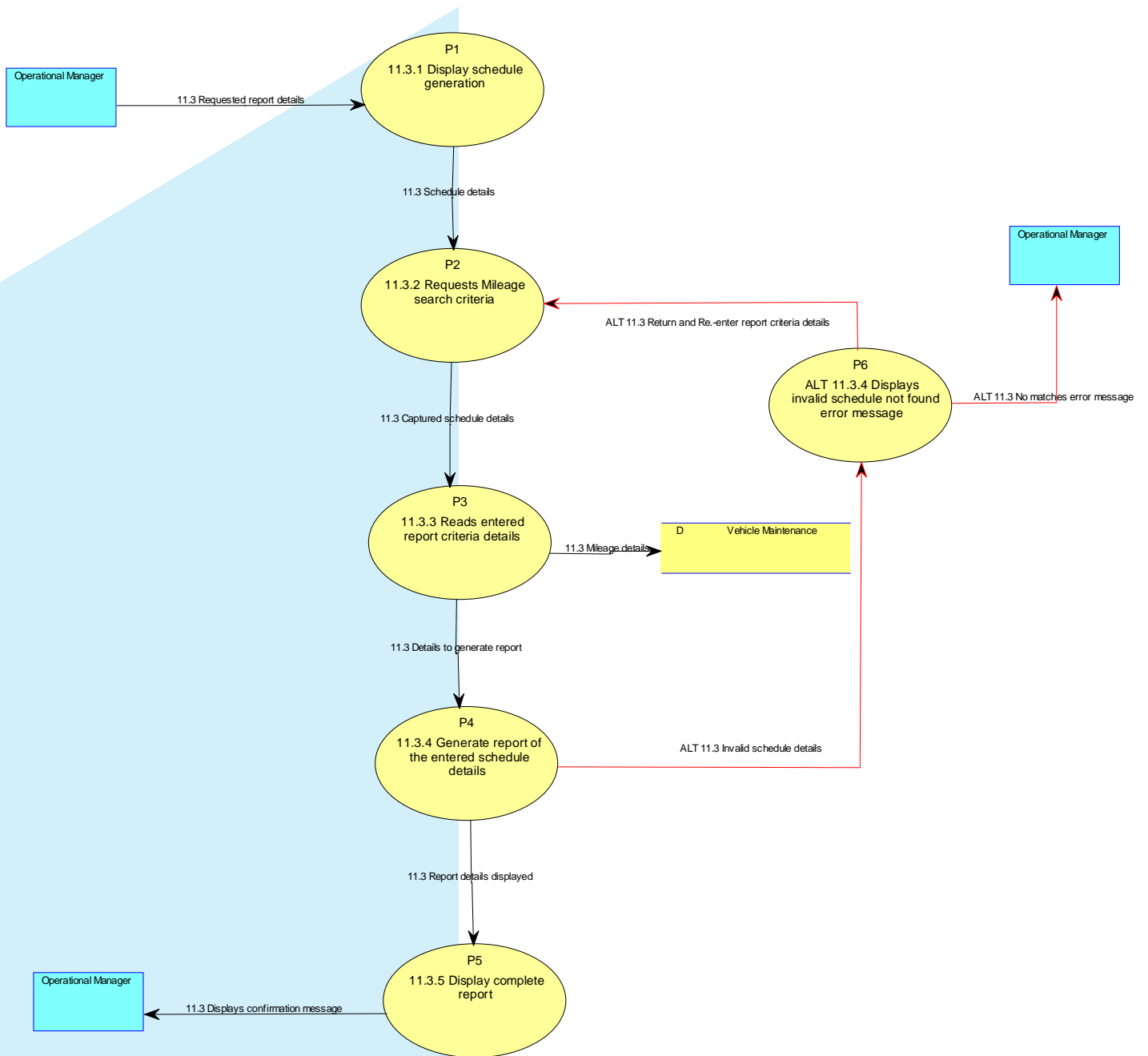


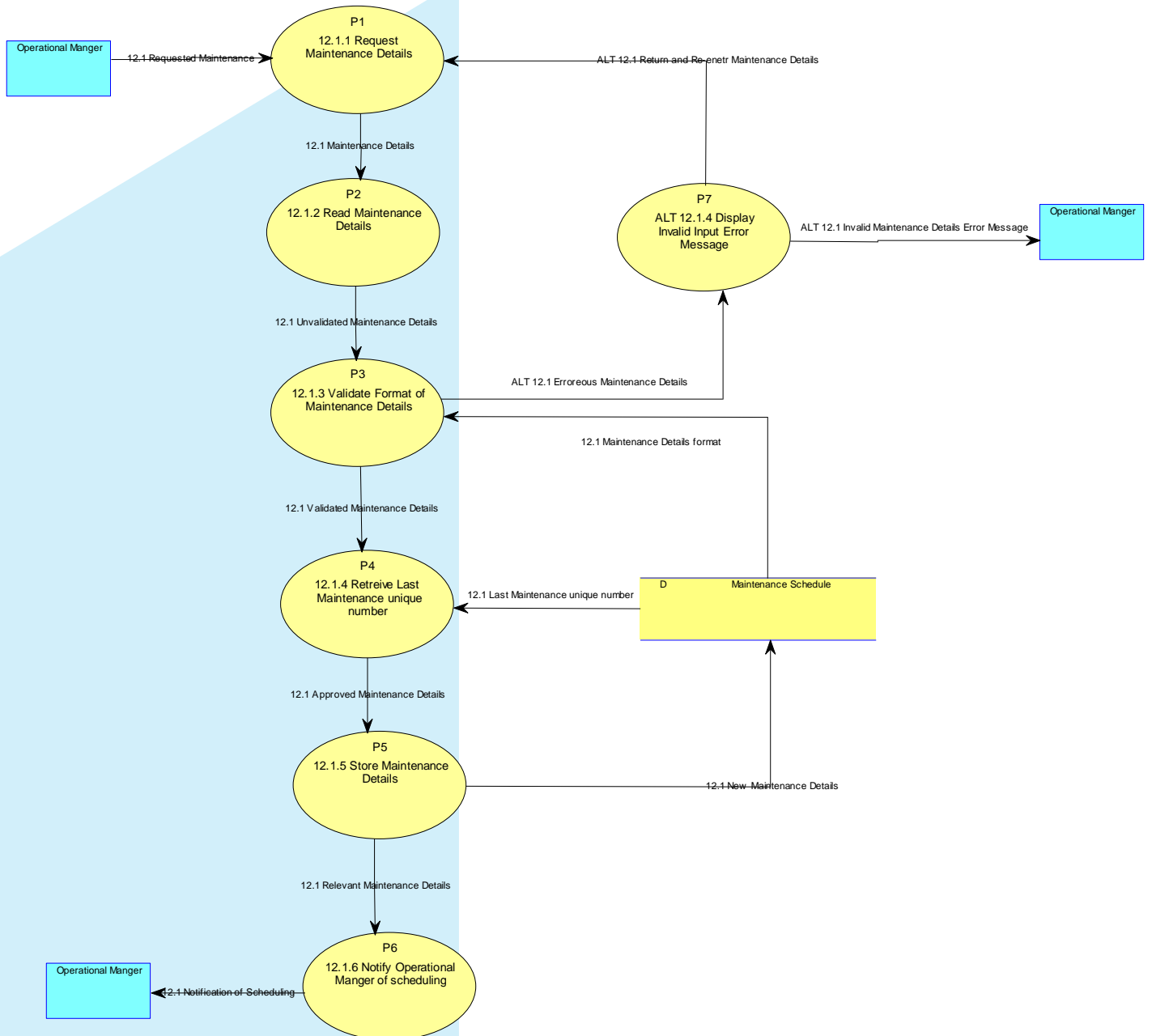


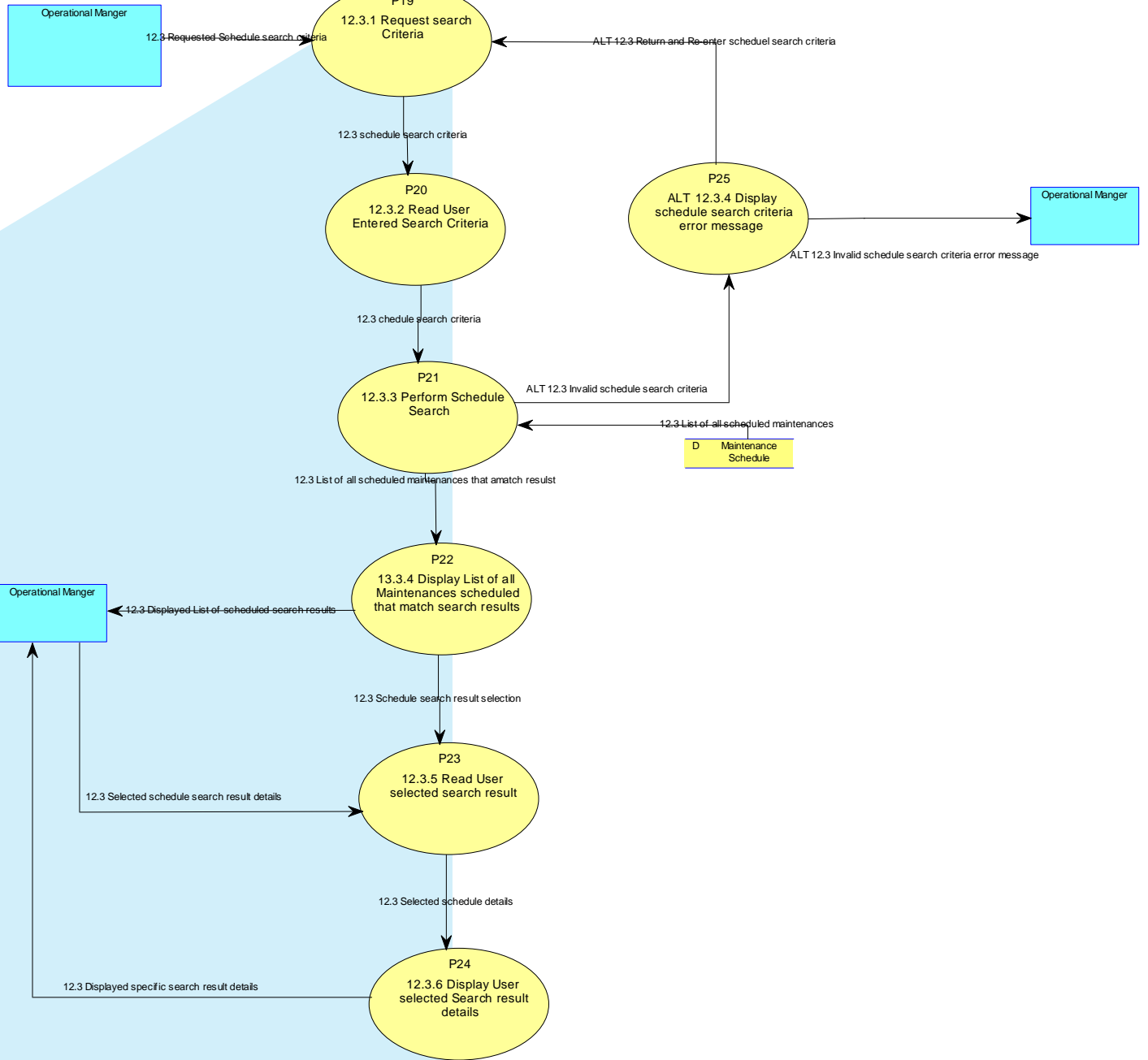


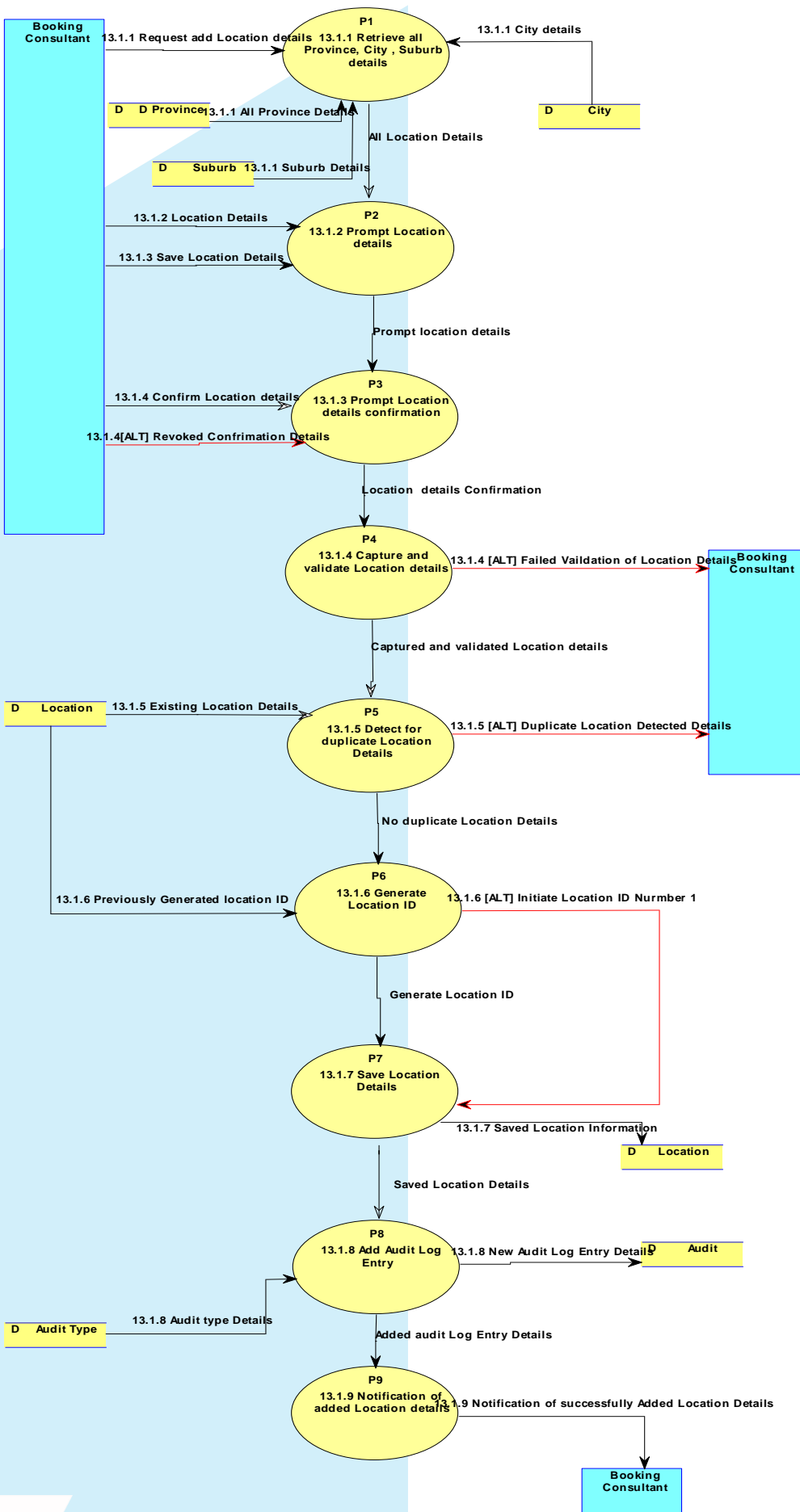


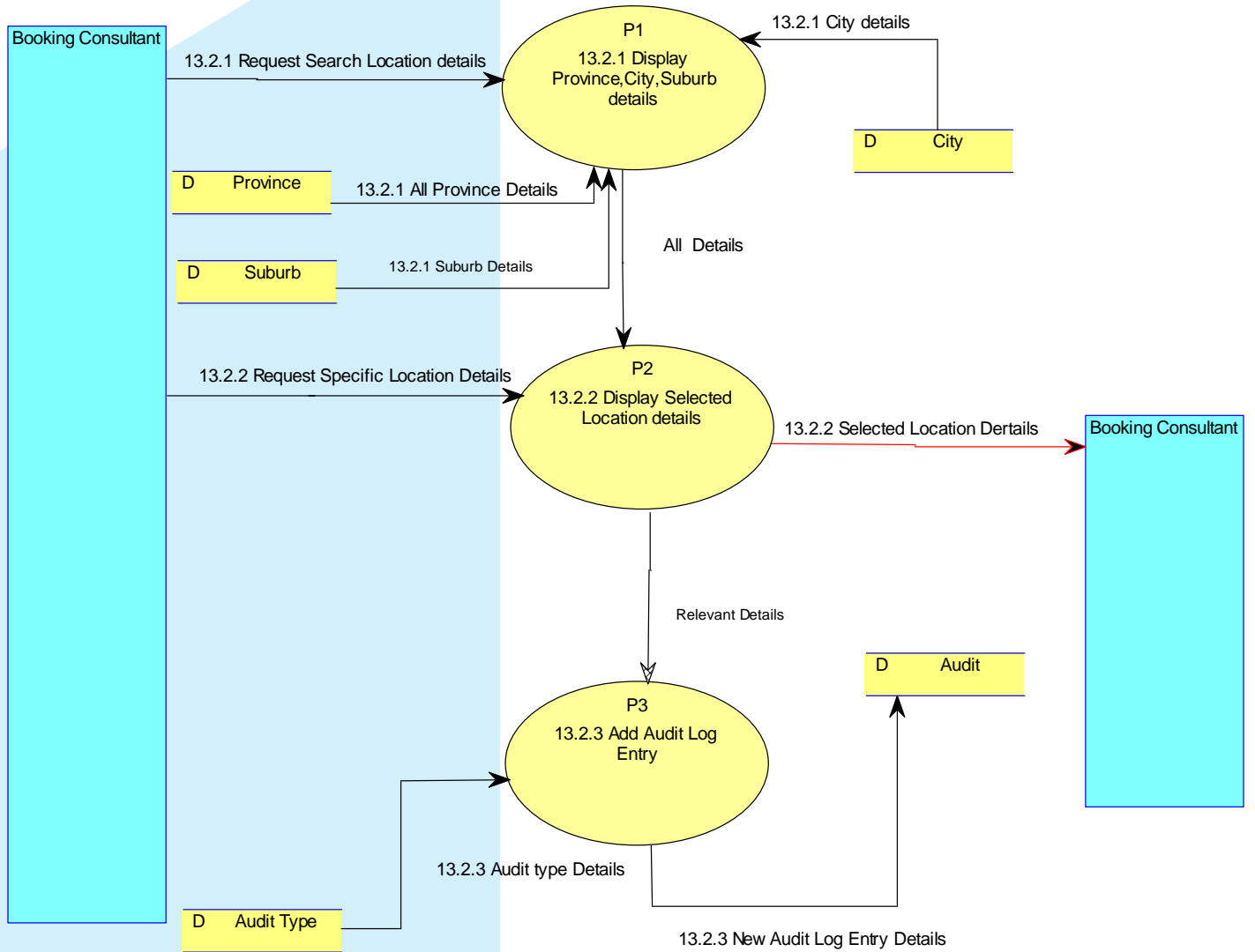


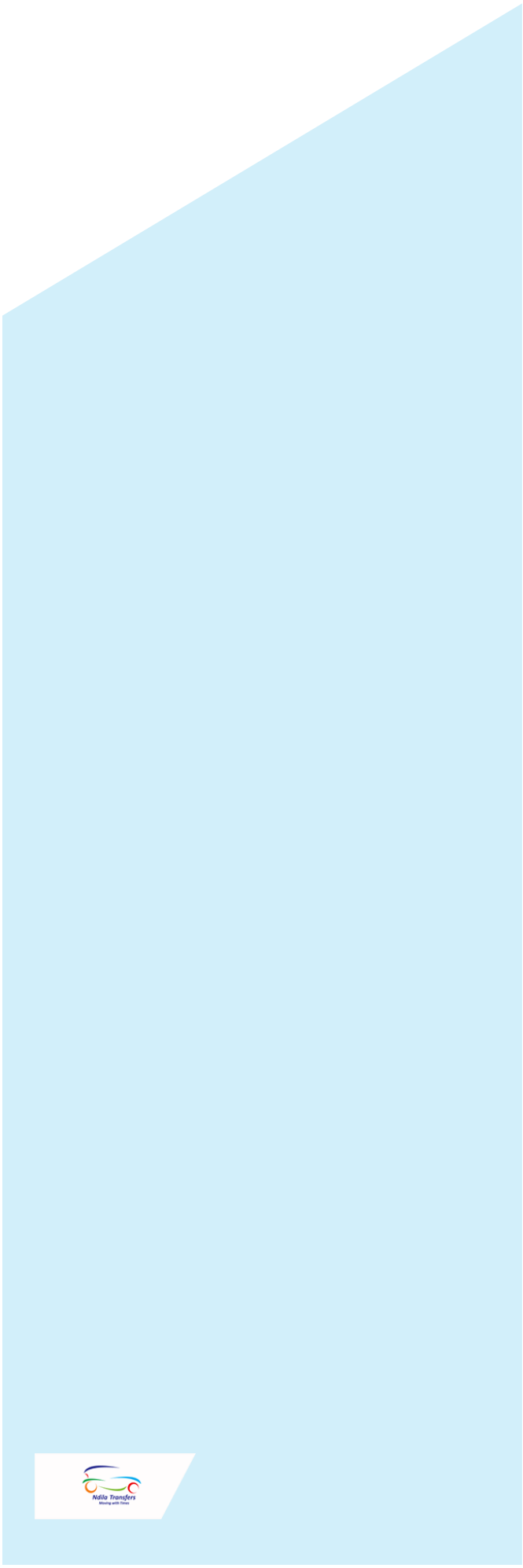


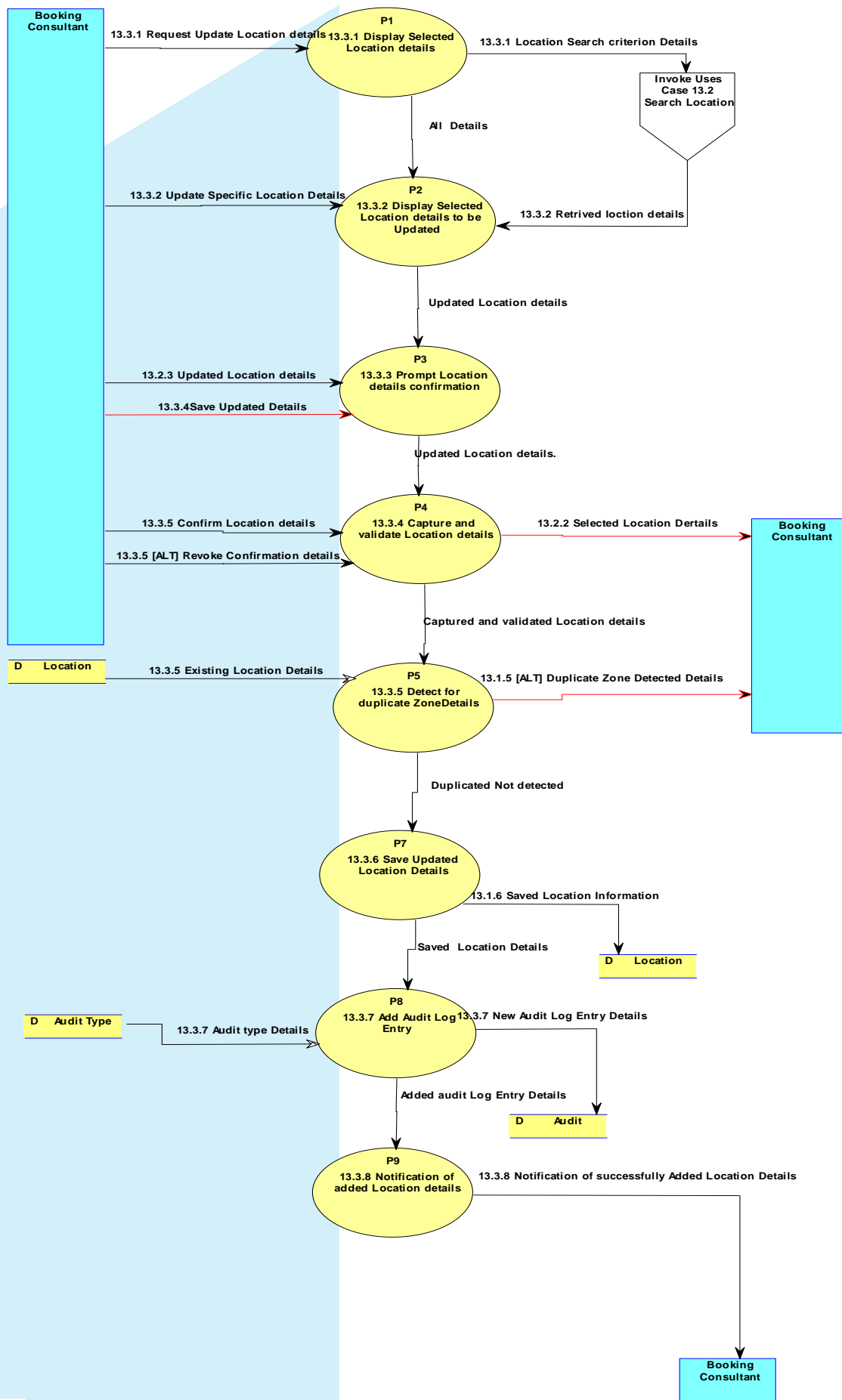


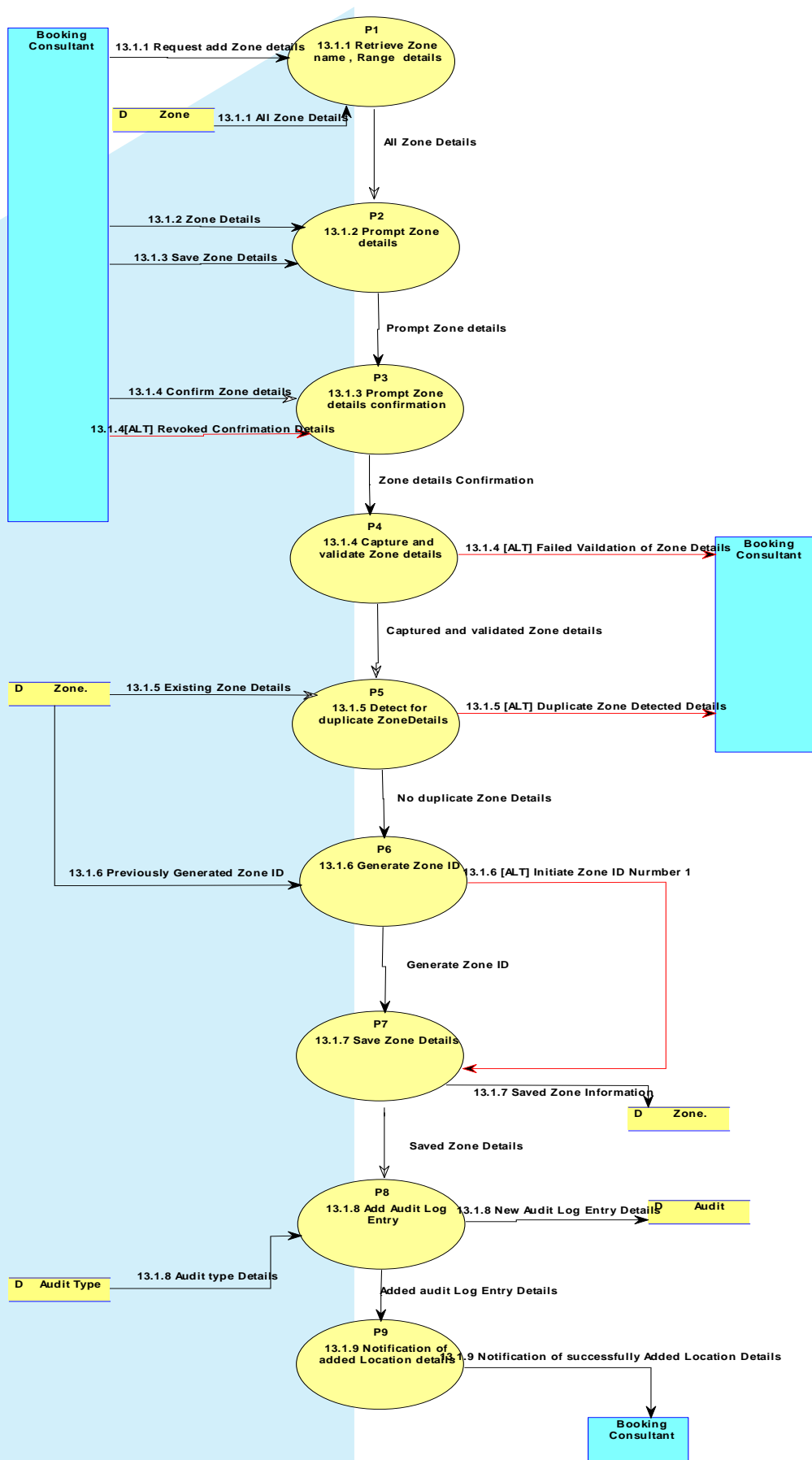


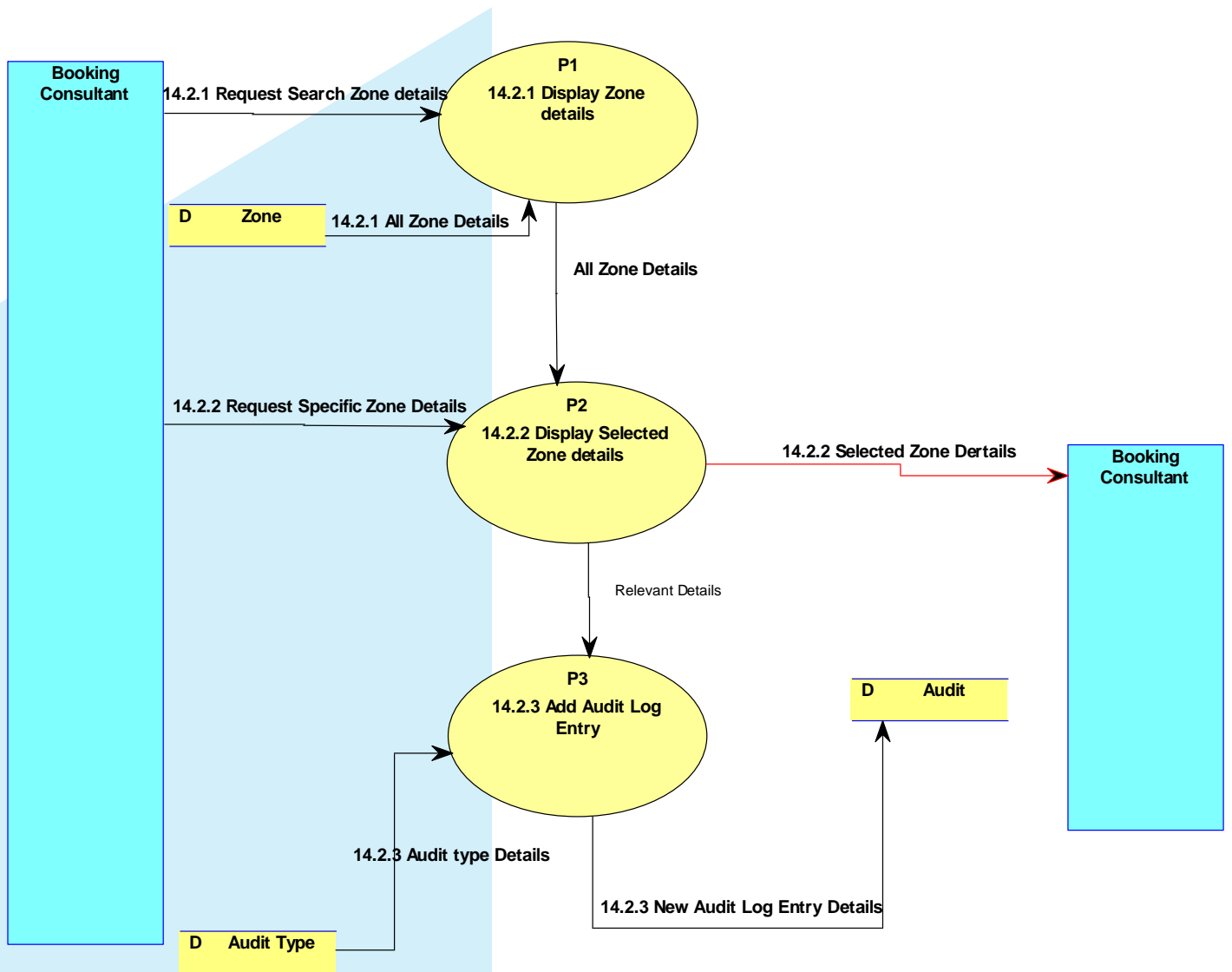


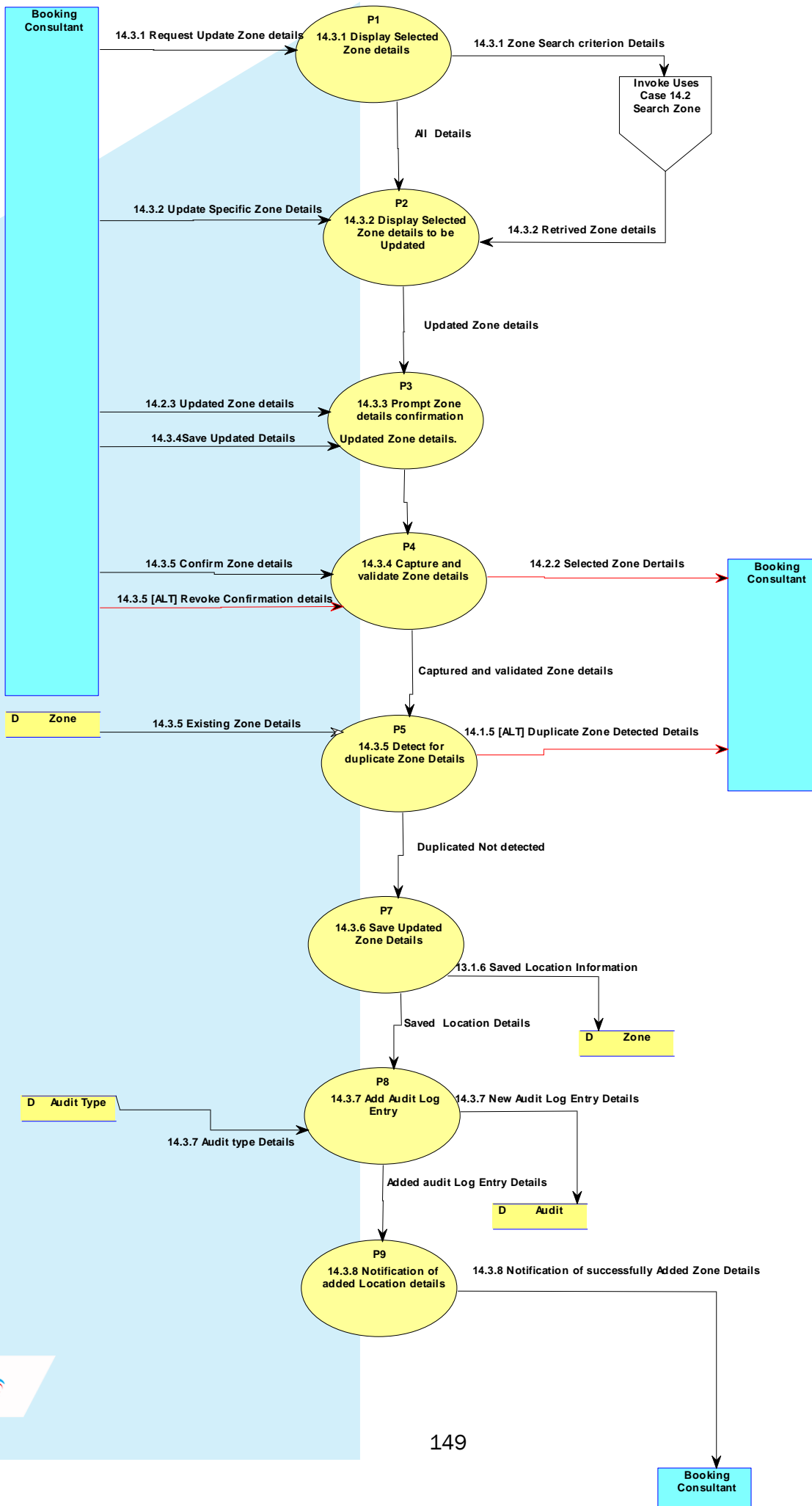


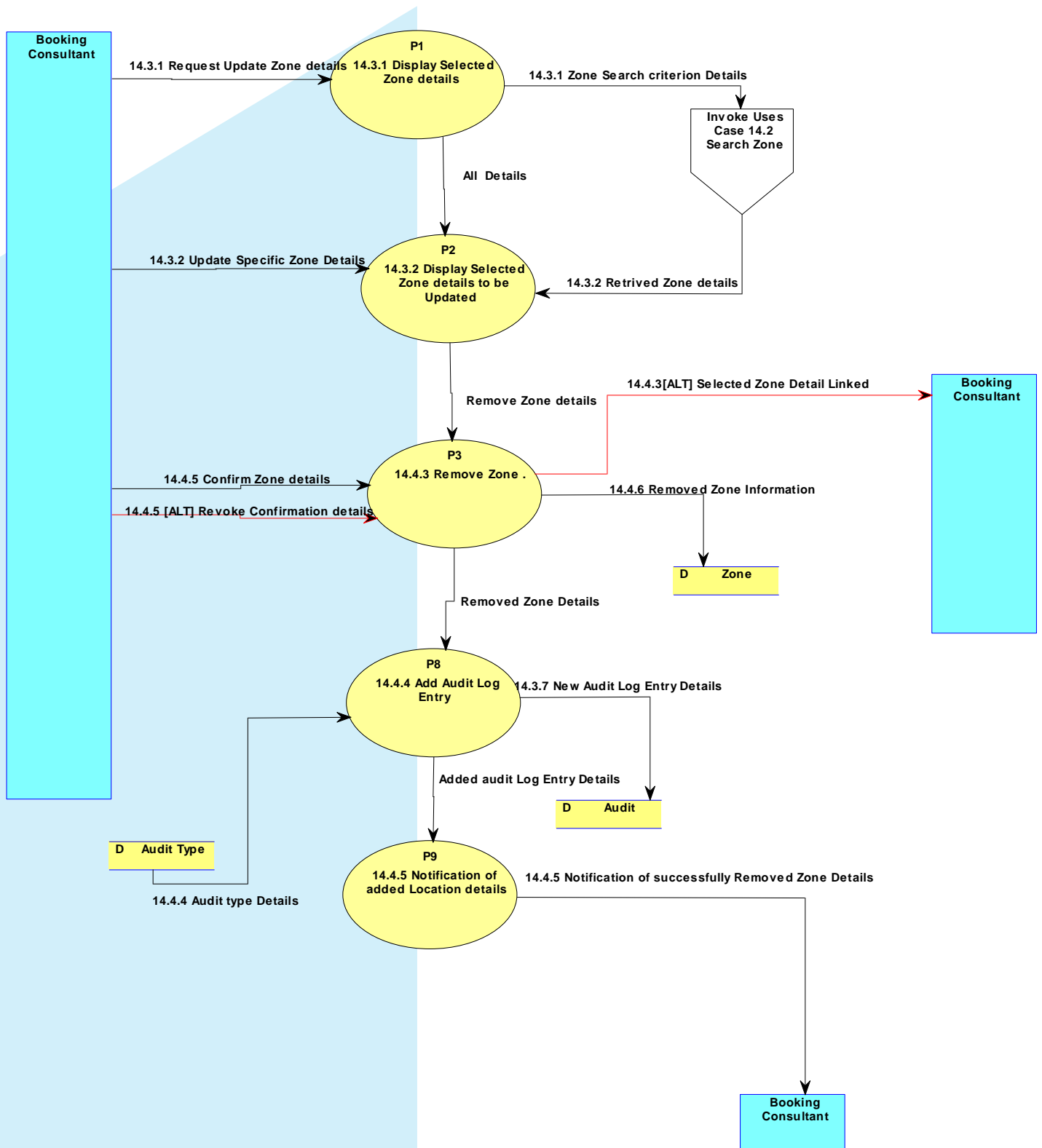


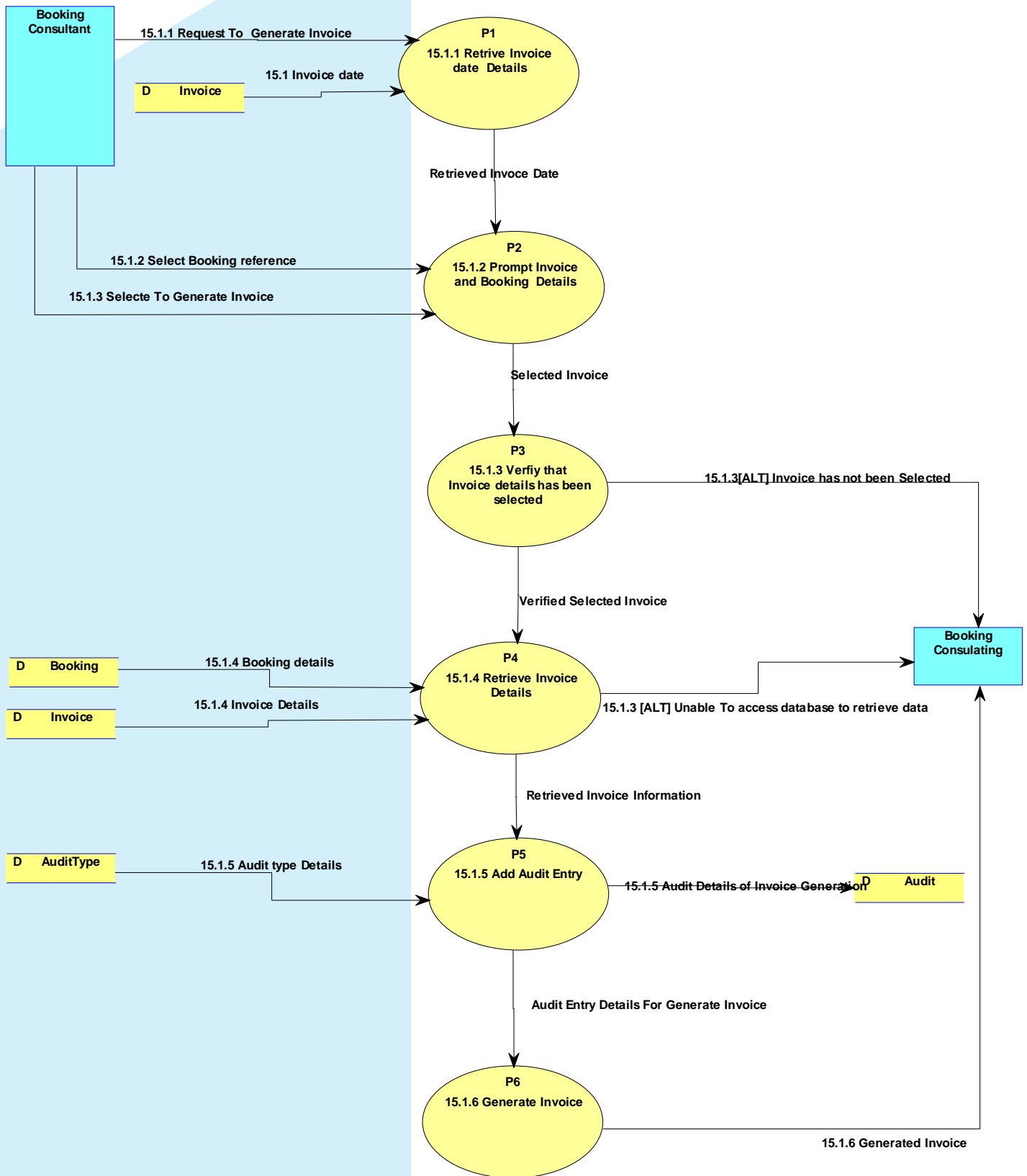












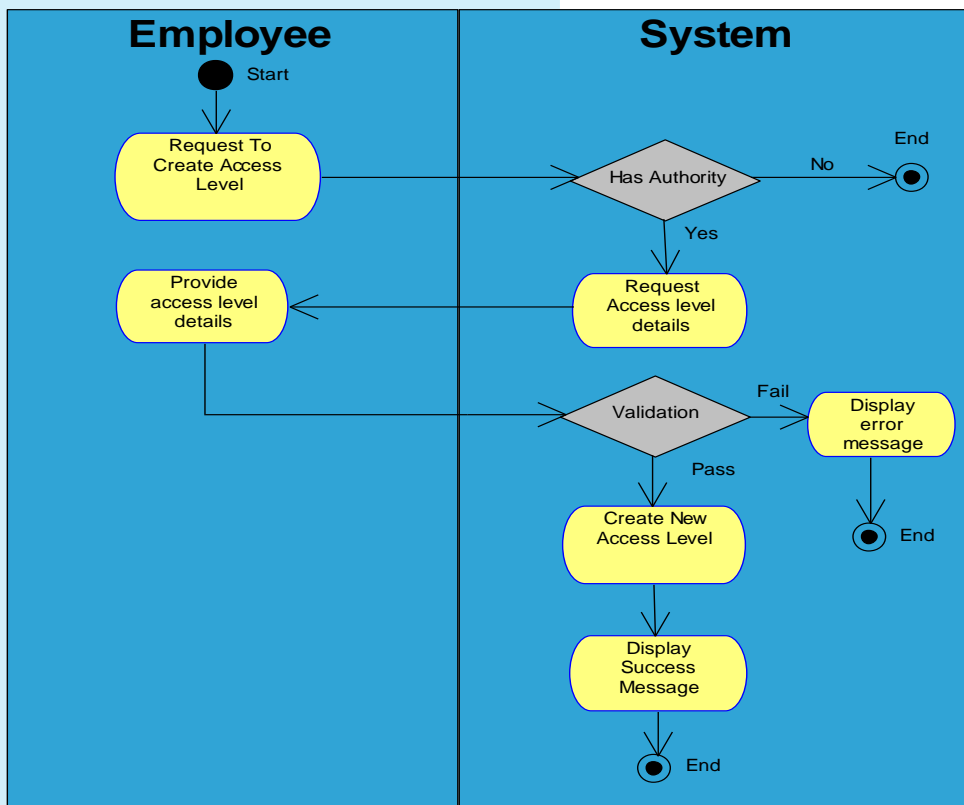
CONCLUSION

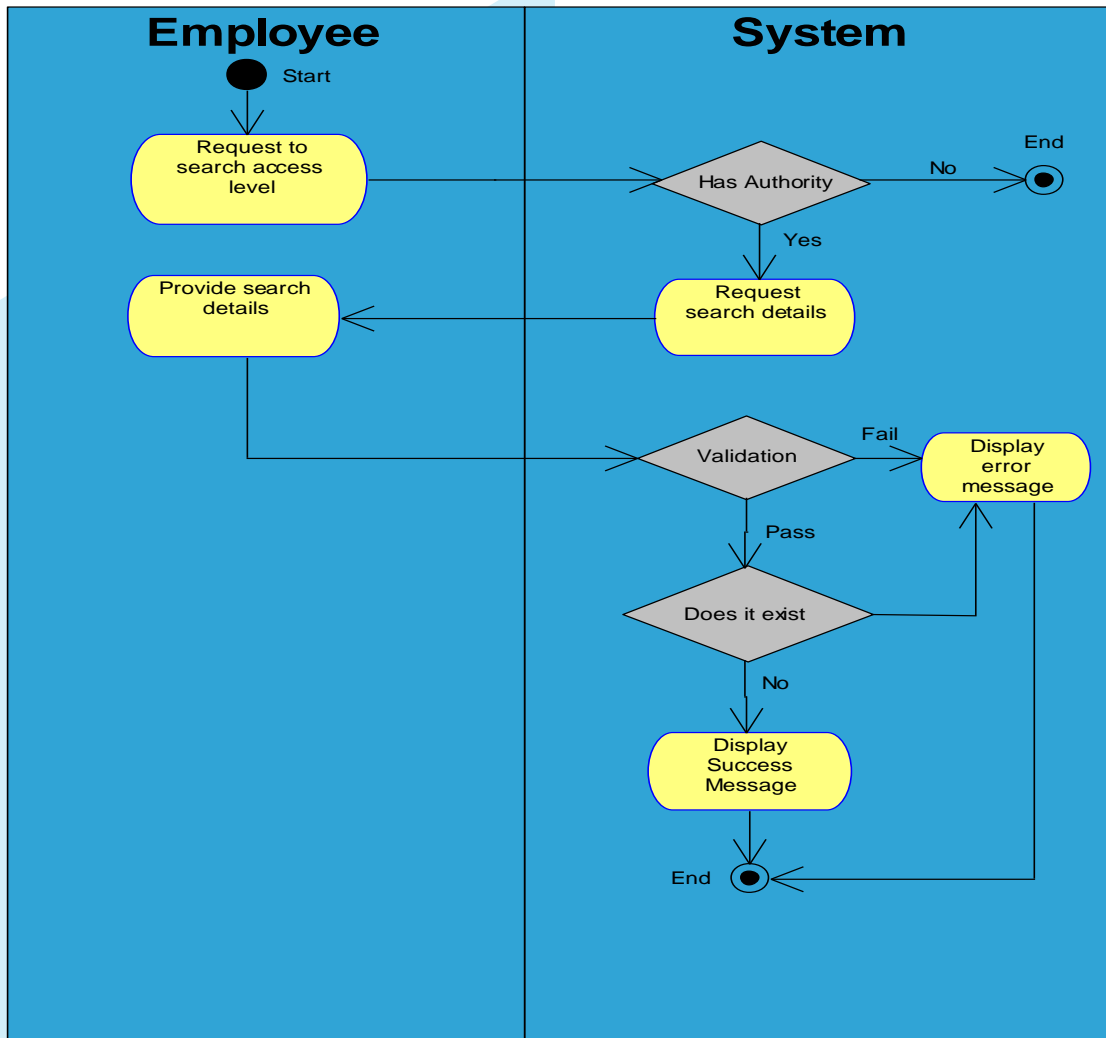
The section seen was a combination of the complete context diagram, functional decomposition diagram, data flow diagrams (high, middle and primitive level) as well as a complete Data Dictionary for the data flow diagrams. These diagrams are laid out to support the logical view of the system.

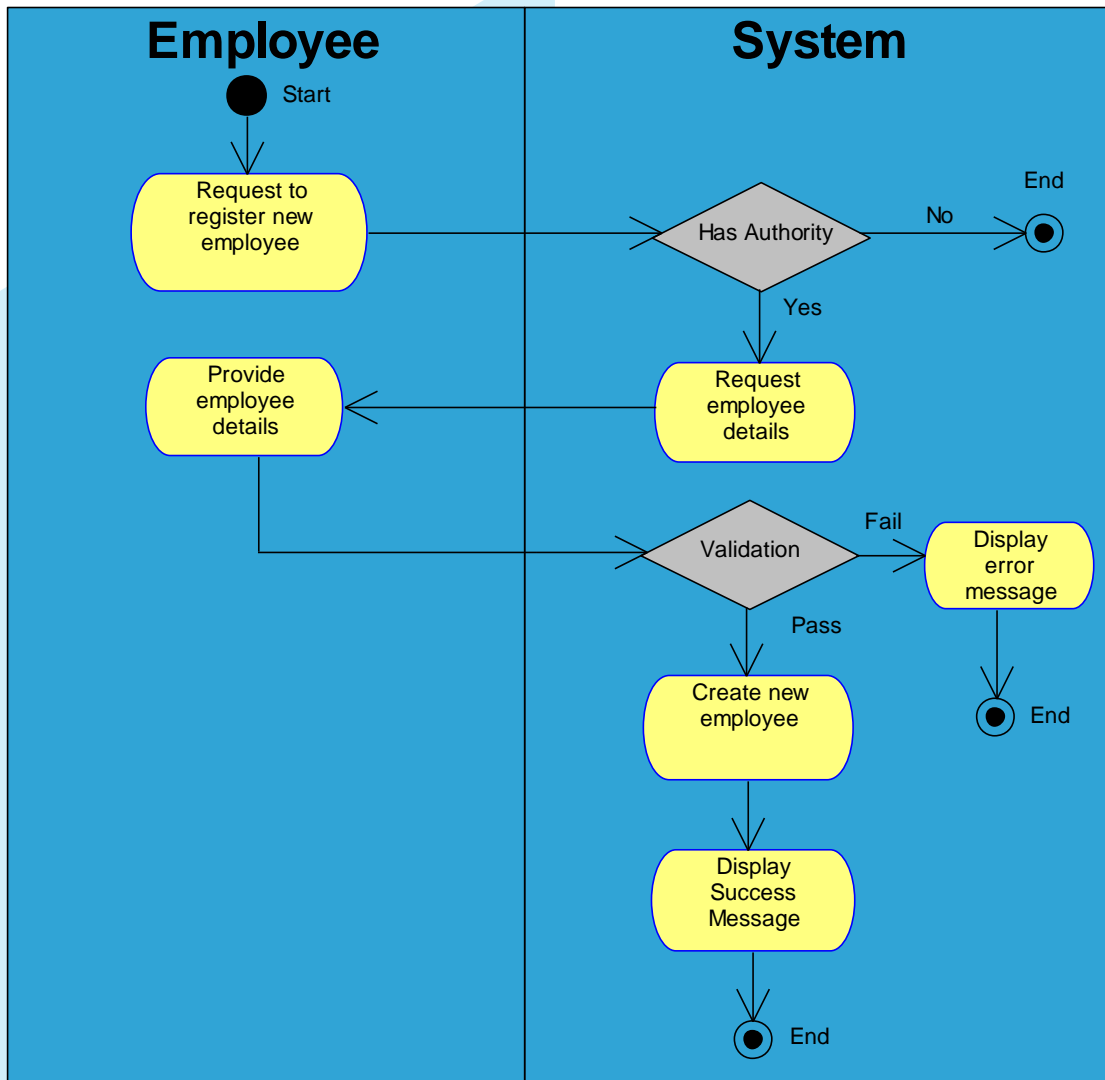
4. UML MODELLING

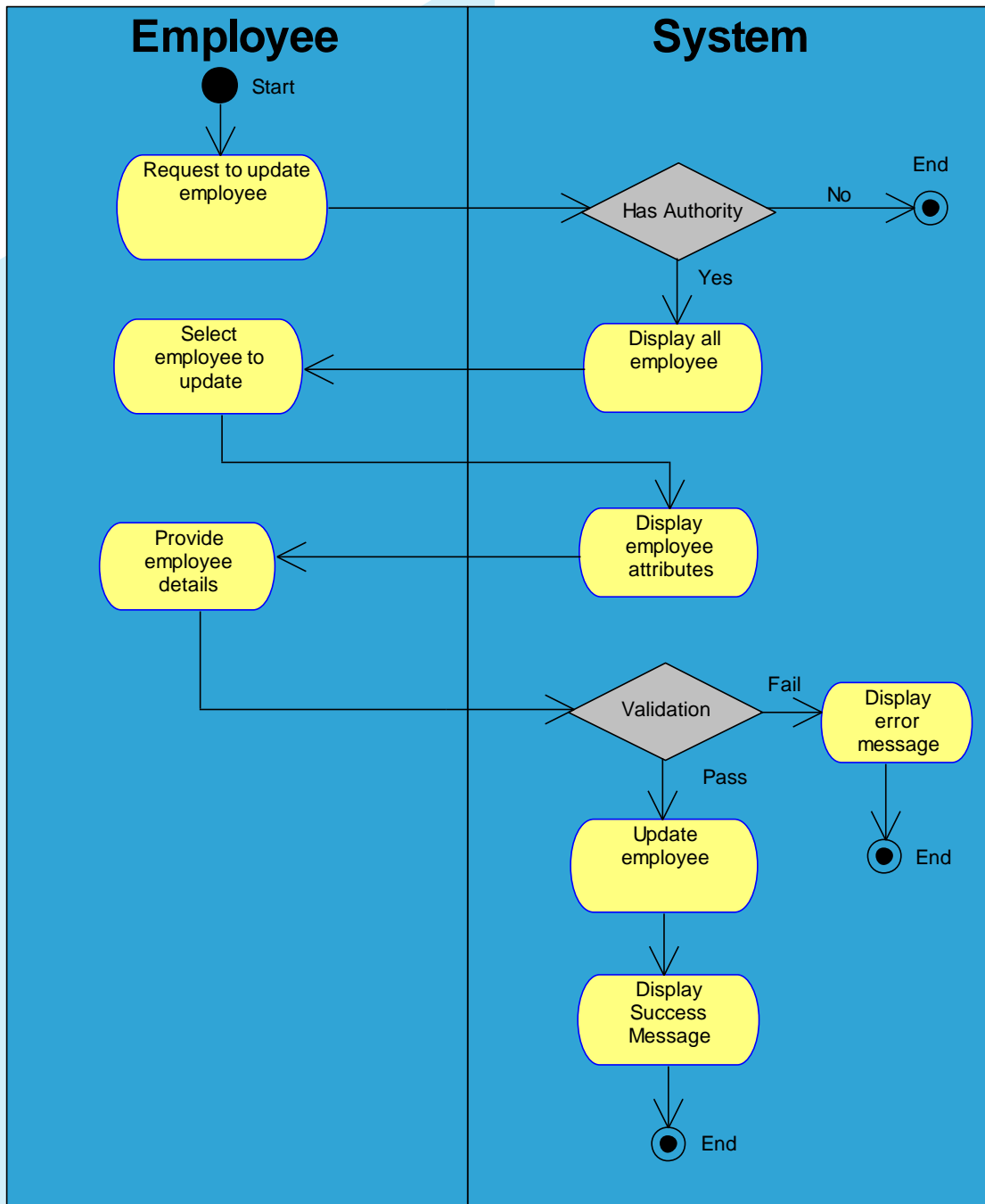
INTRODUCTION

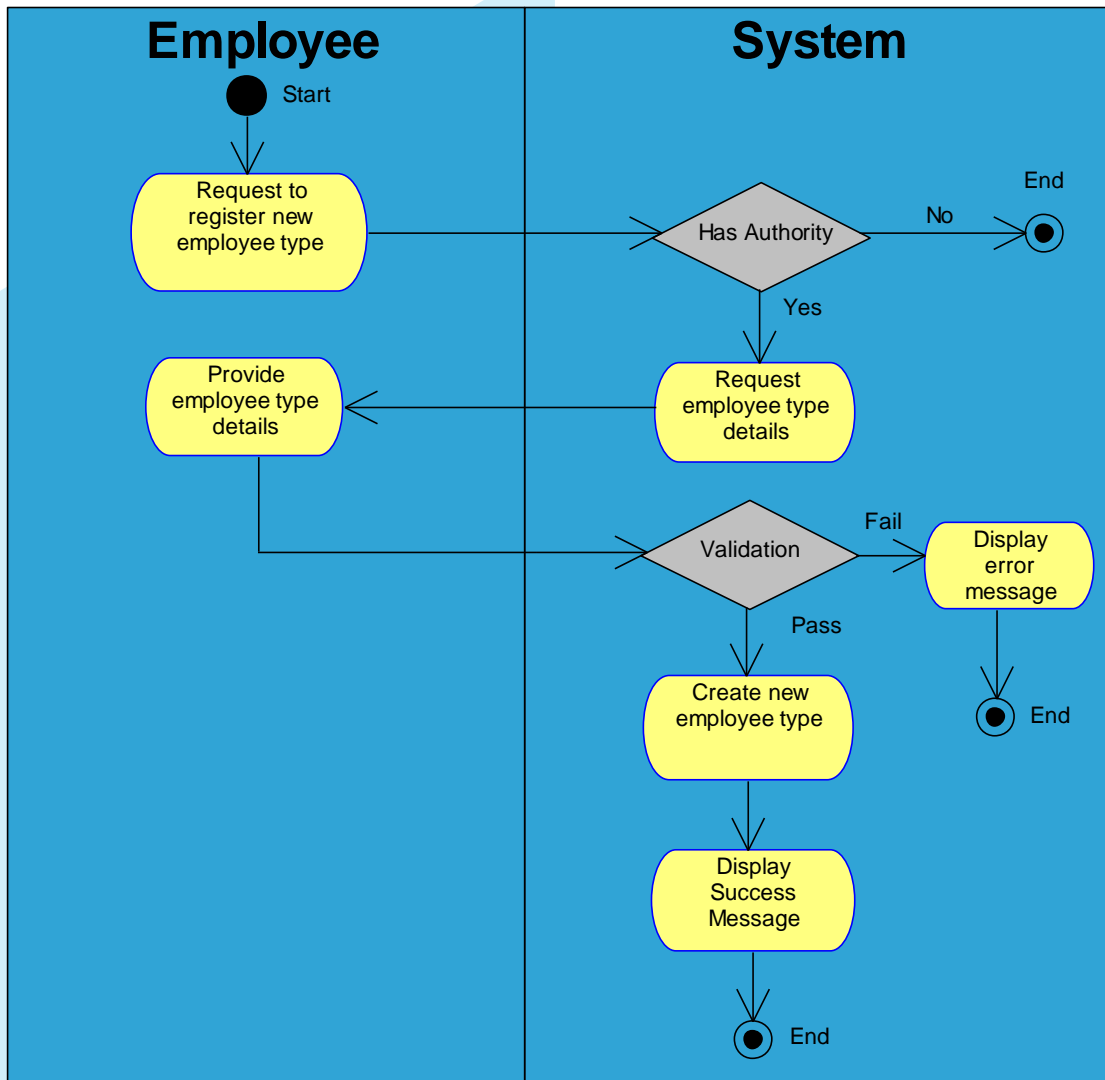
This section of the document contains UML Activity diagrams for each of our functional requirements. The activity diagrams will show the interaction between the user and the system by means of swim-lanes in each diagram.

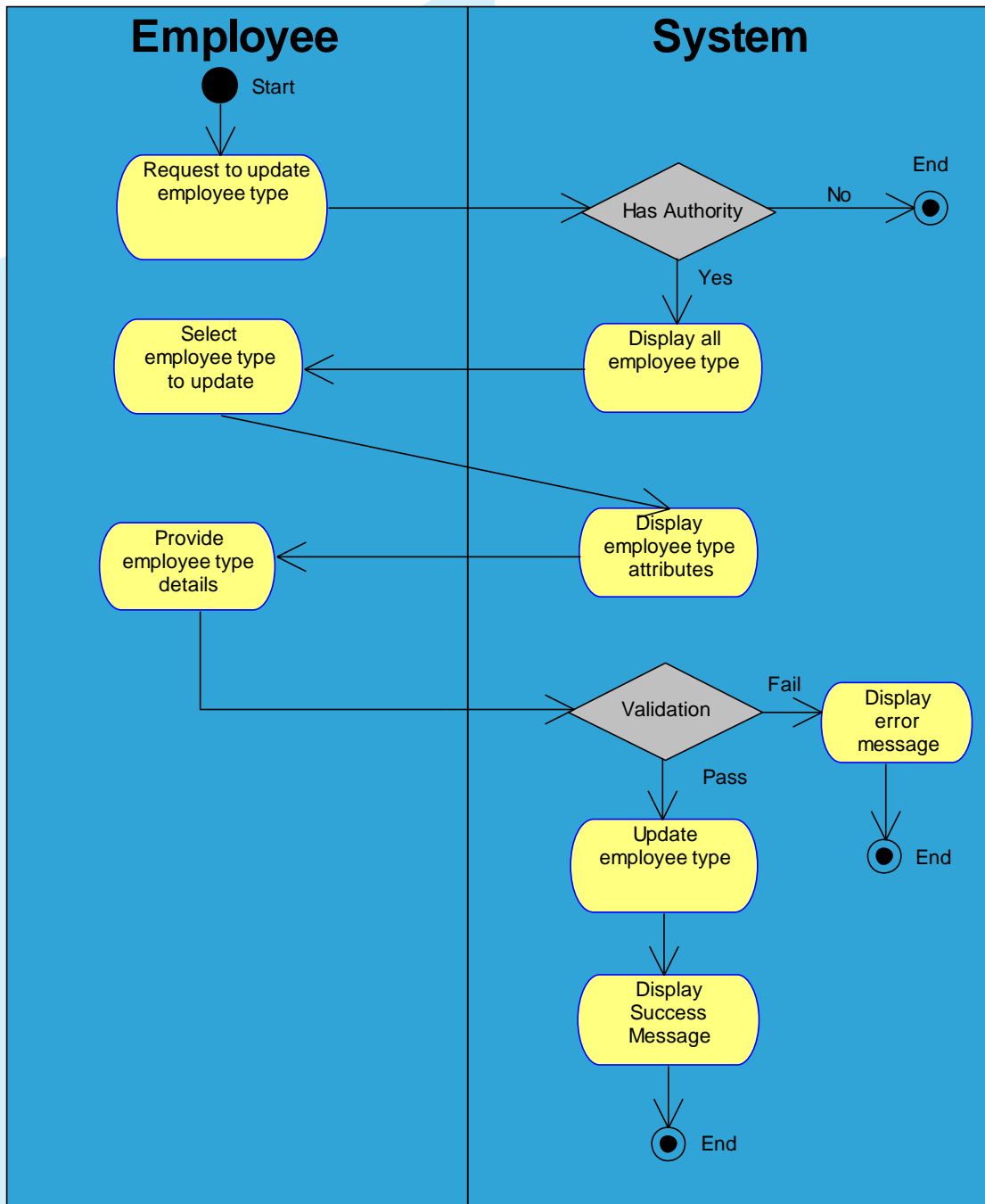


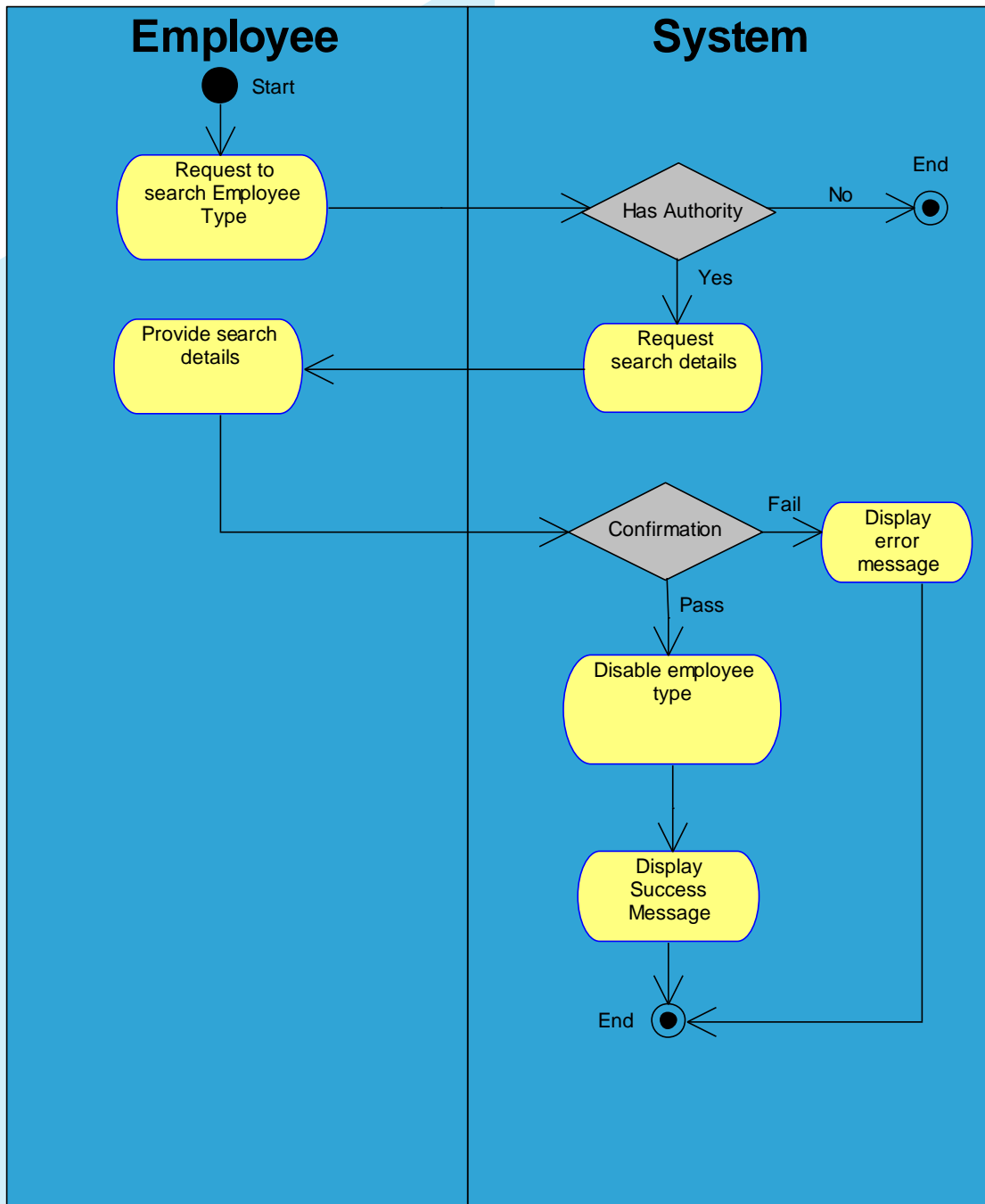


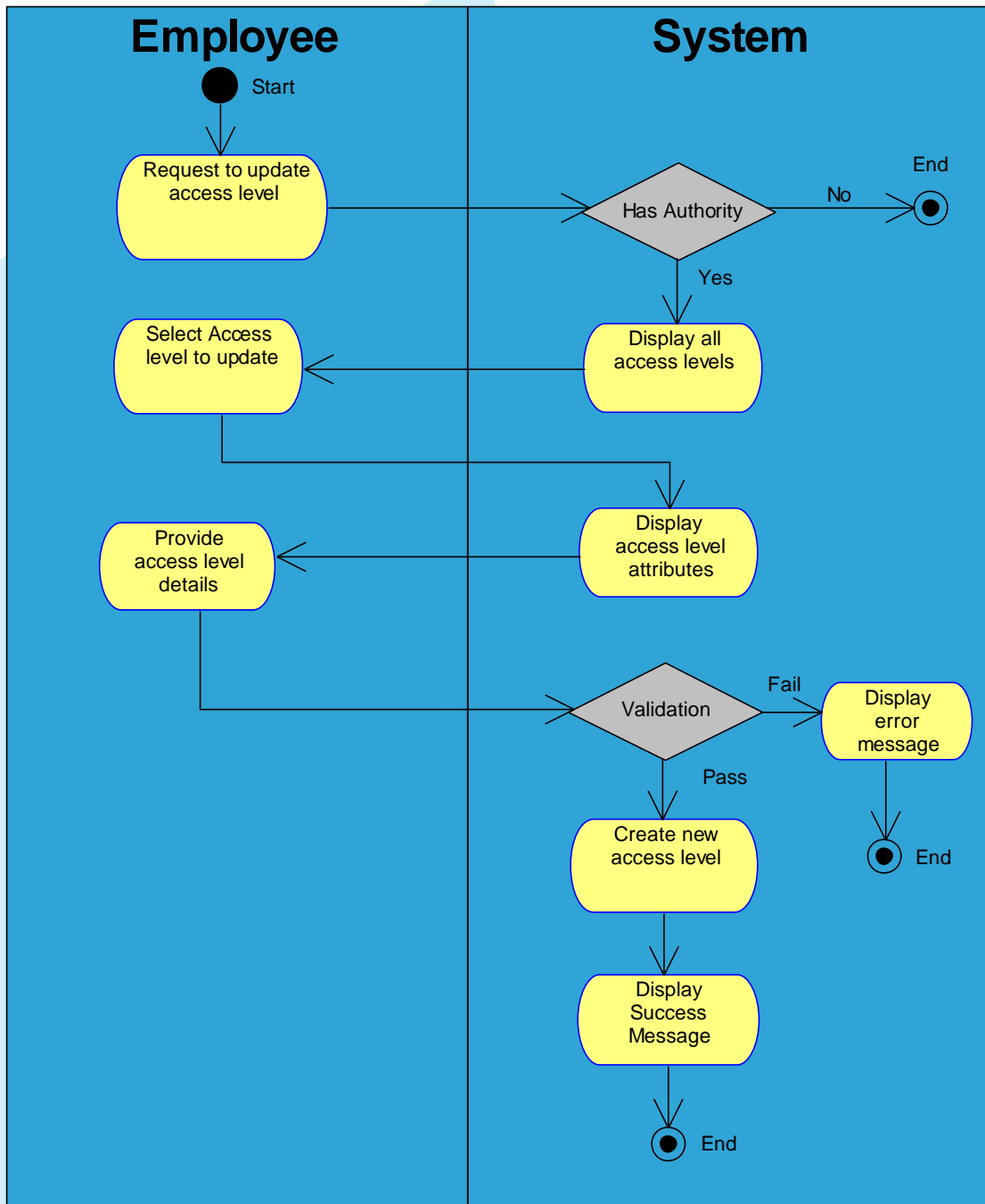


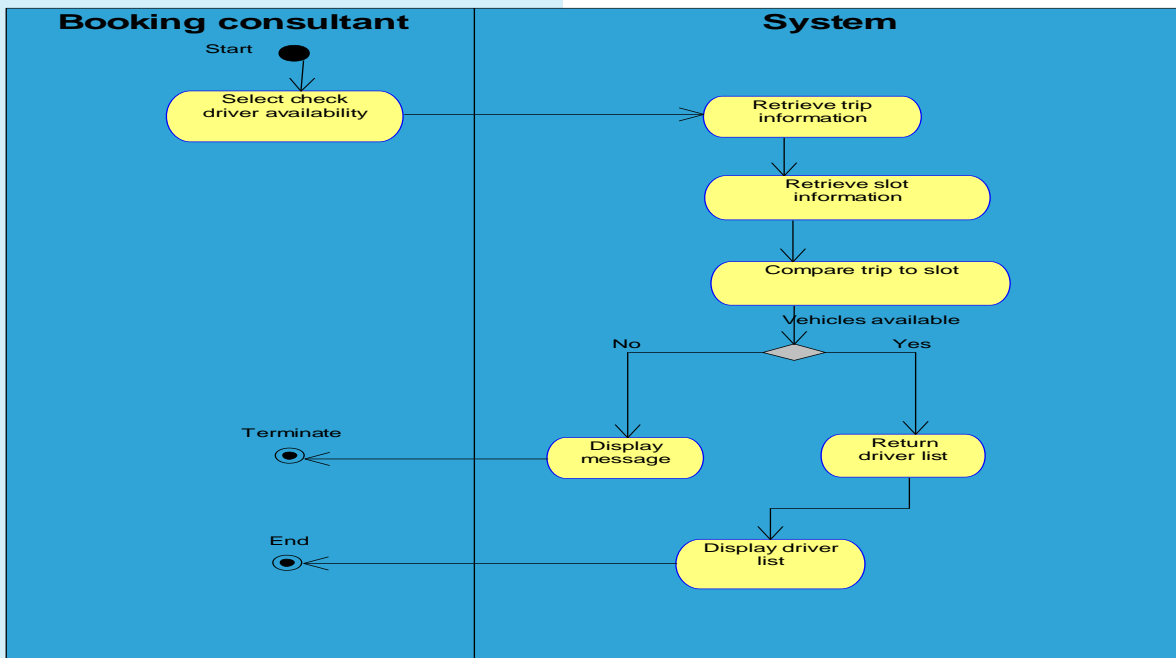
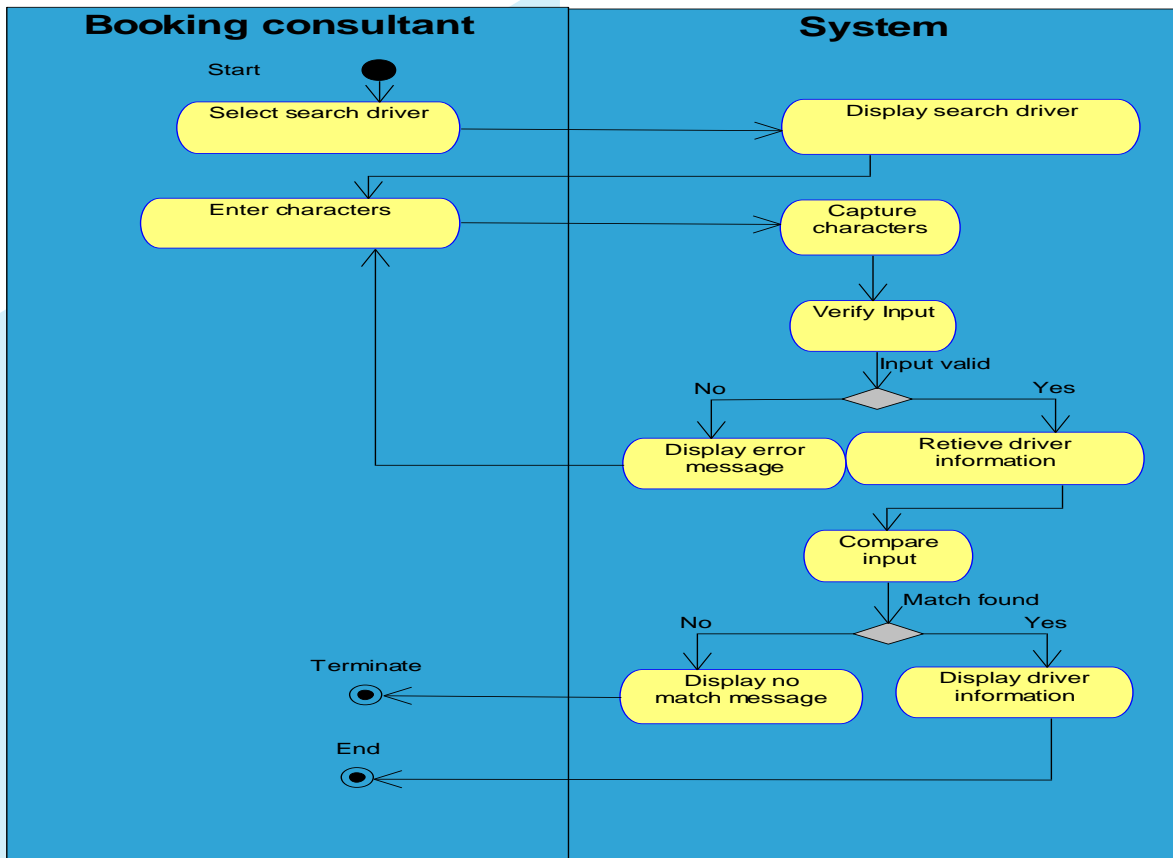


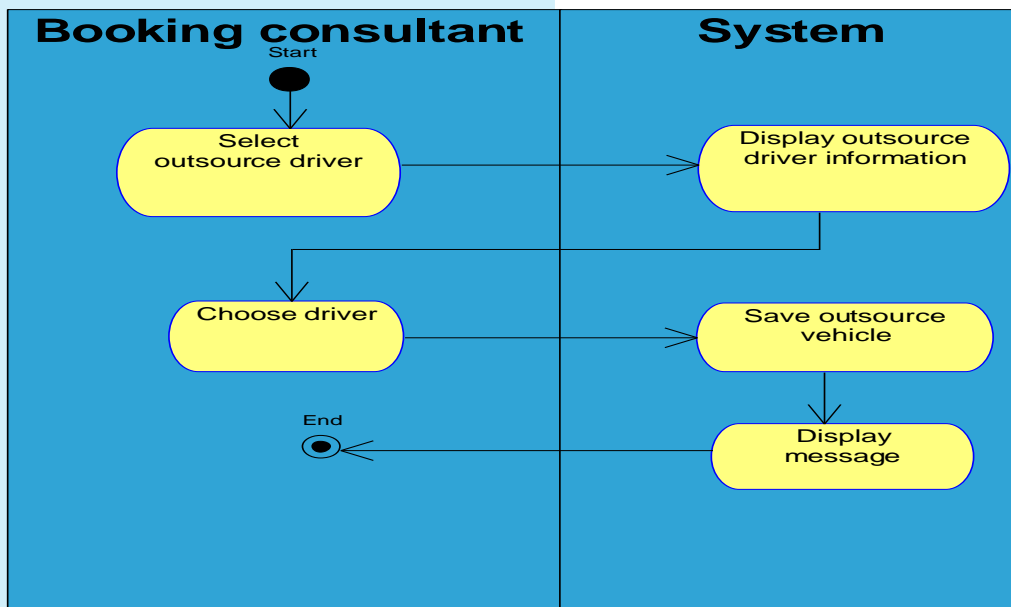
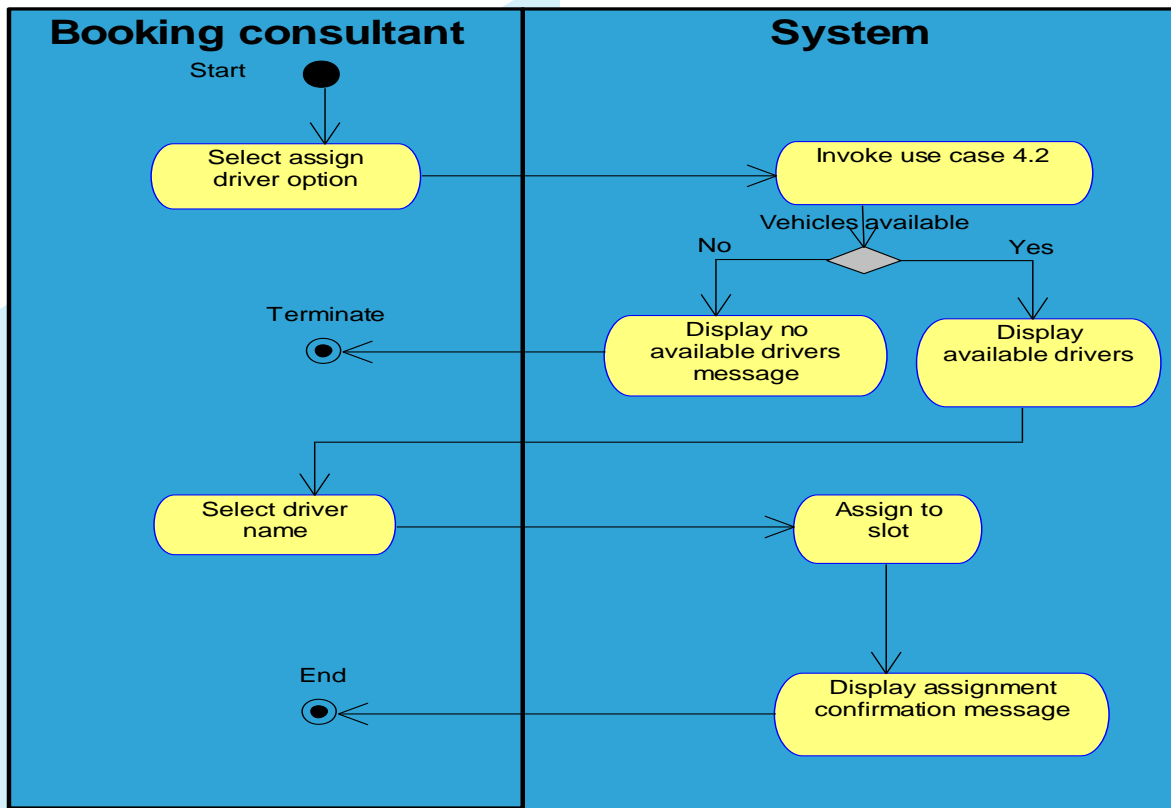


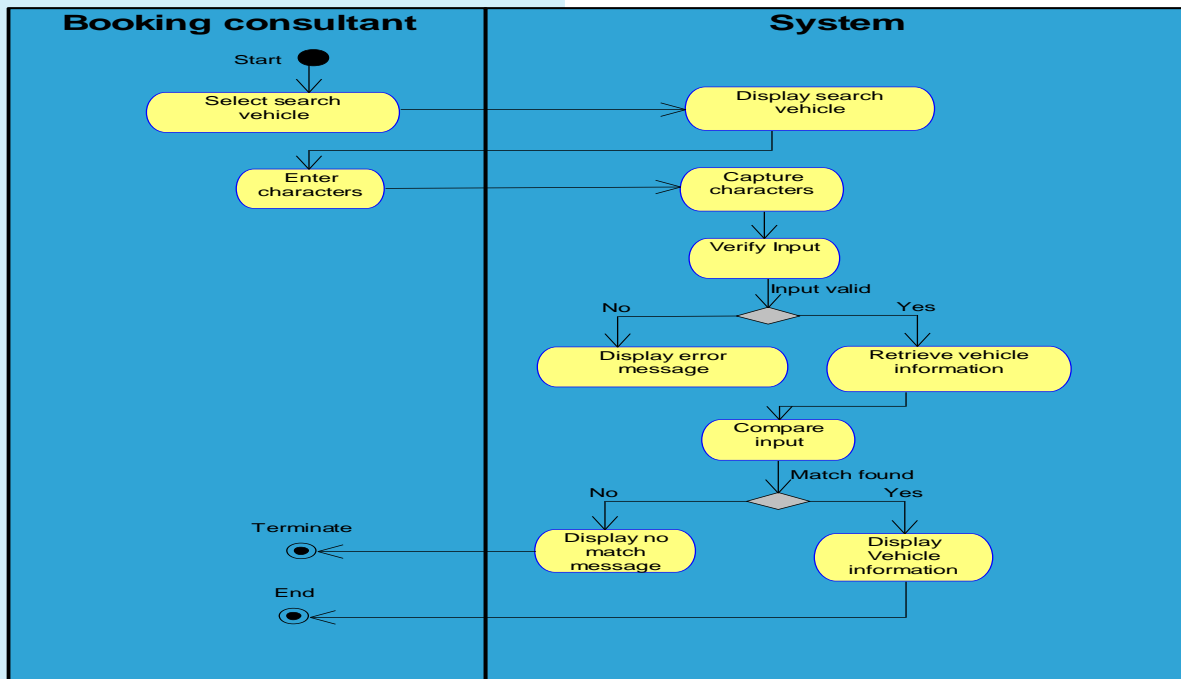
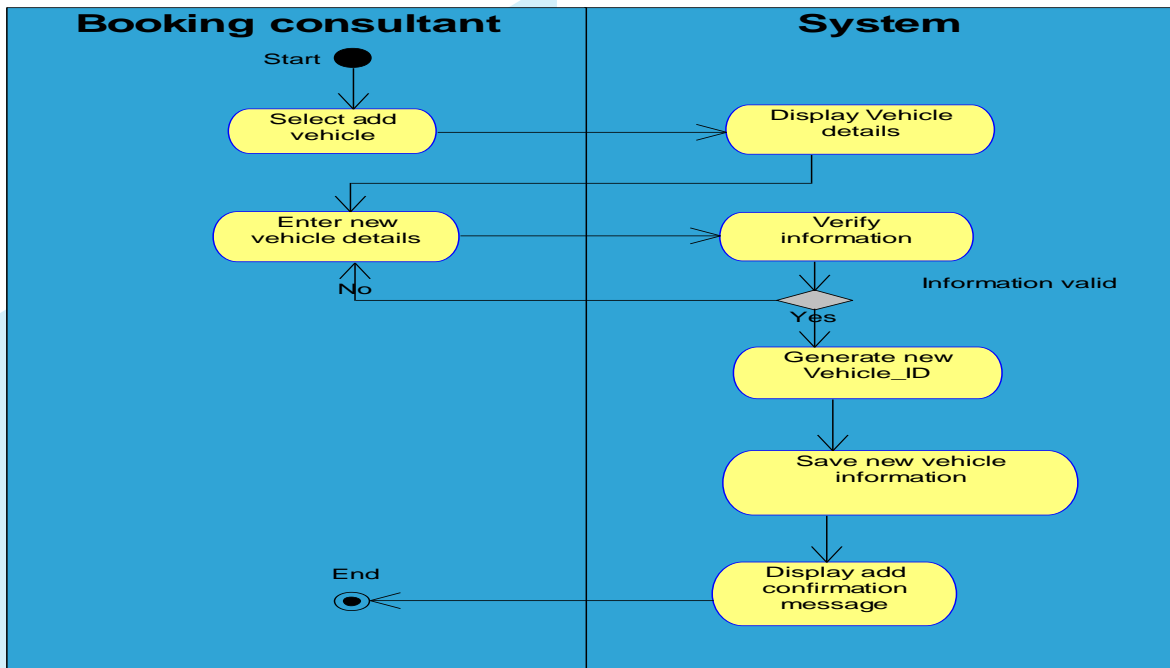


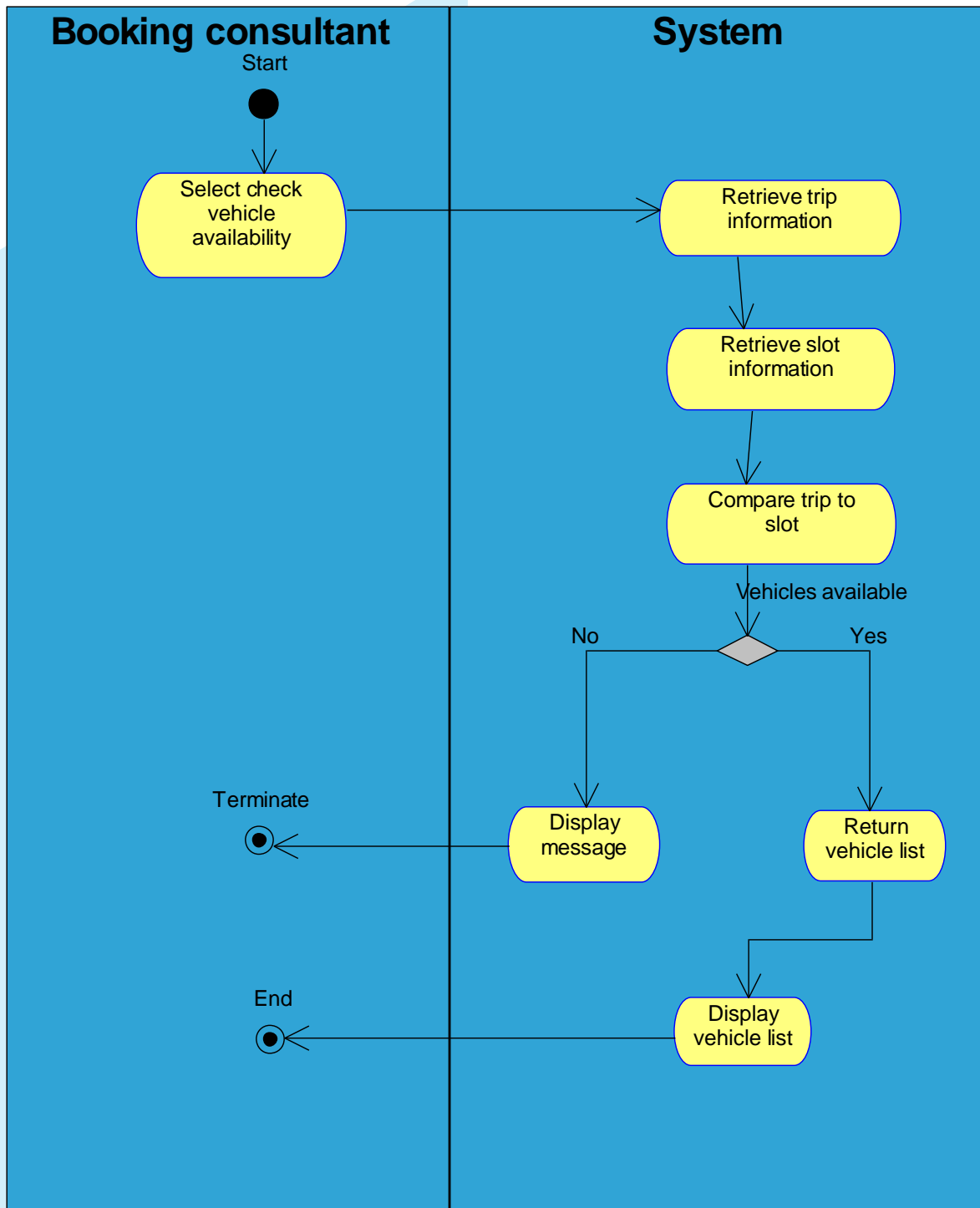


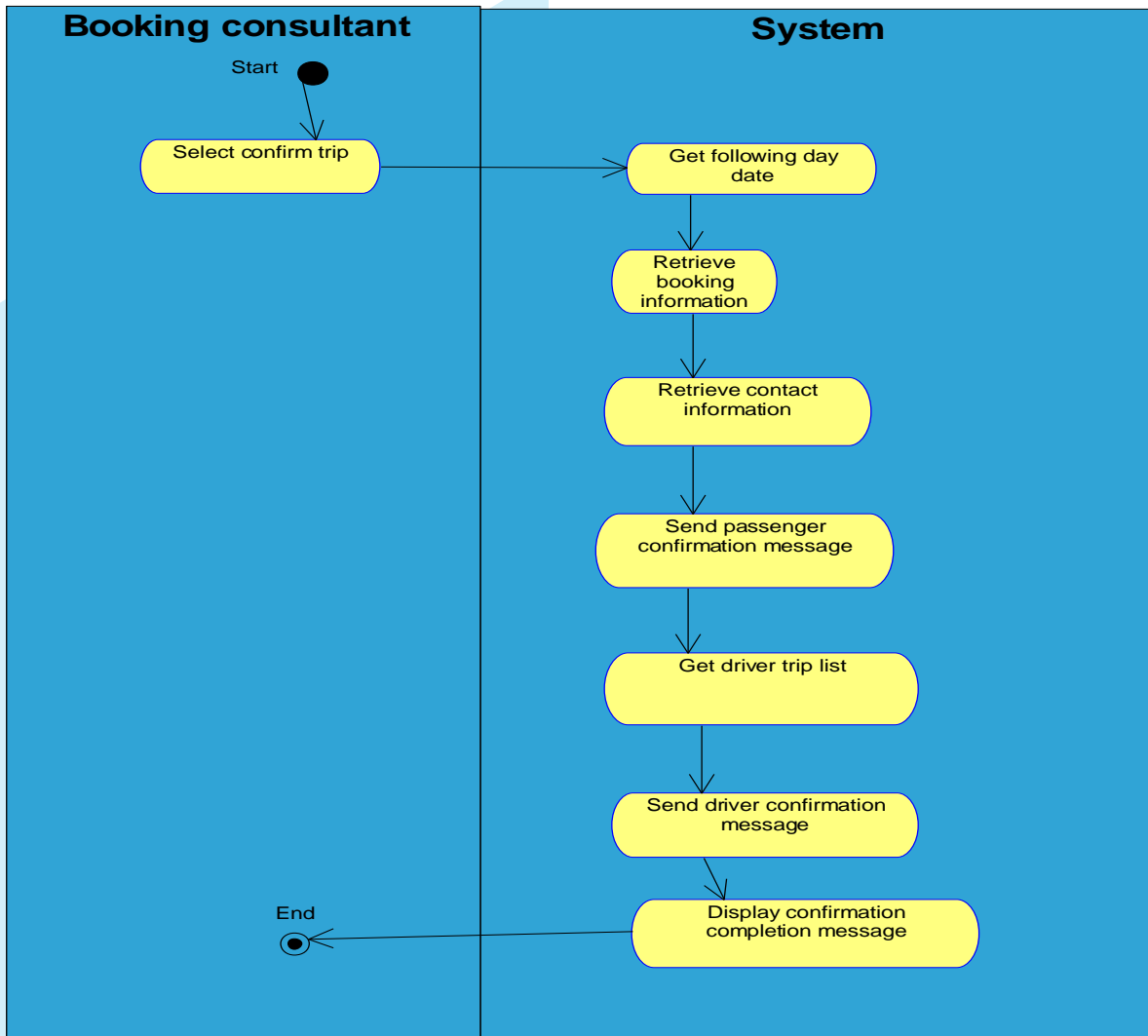


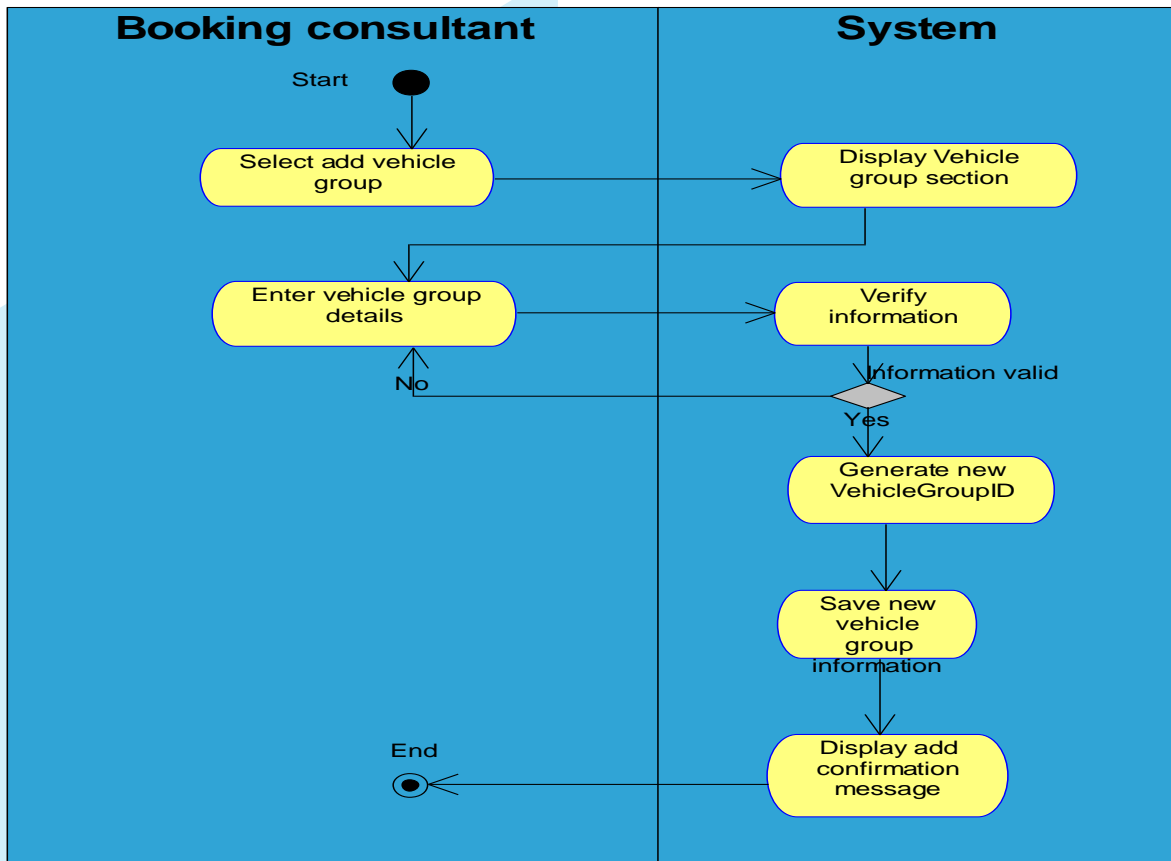


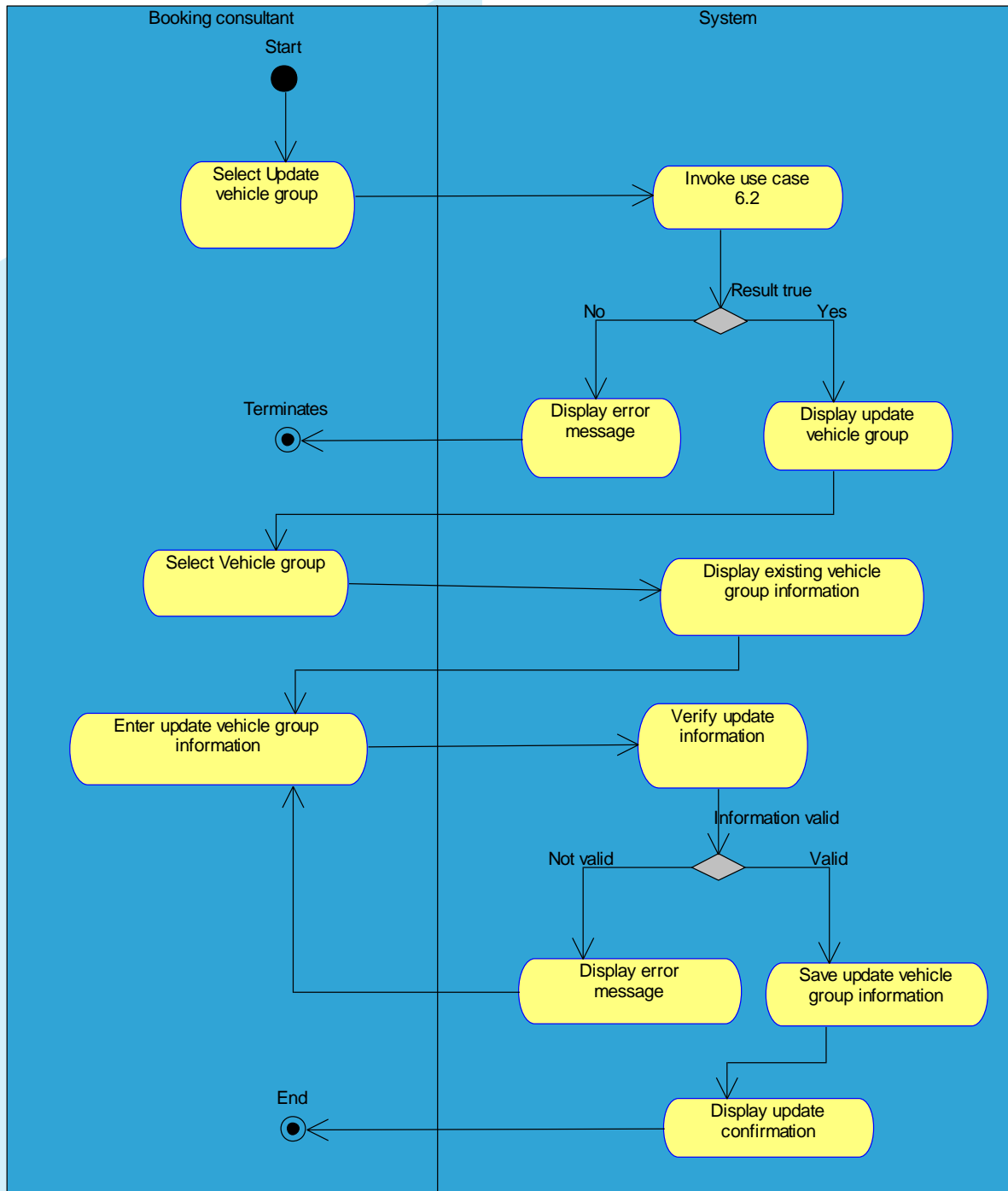


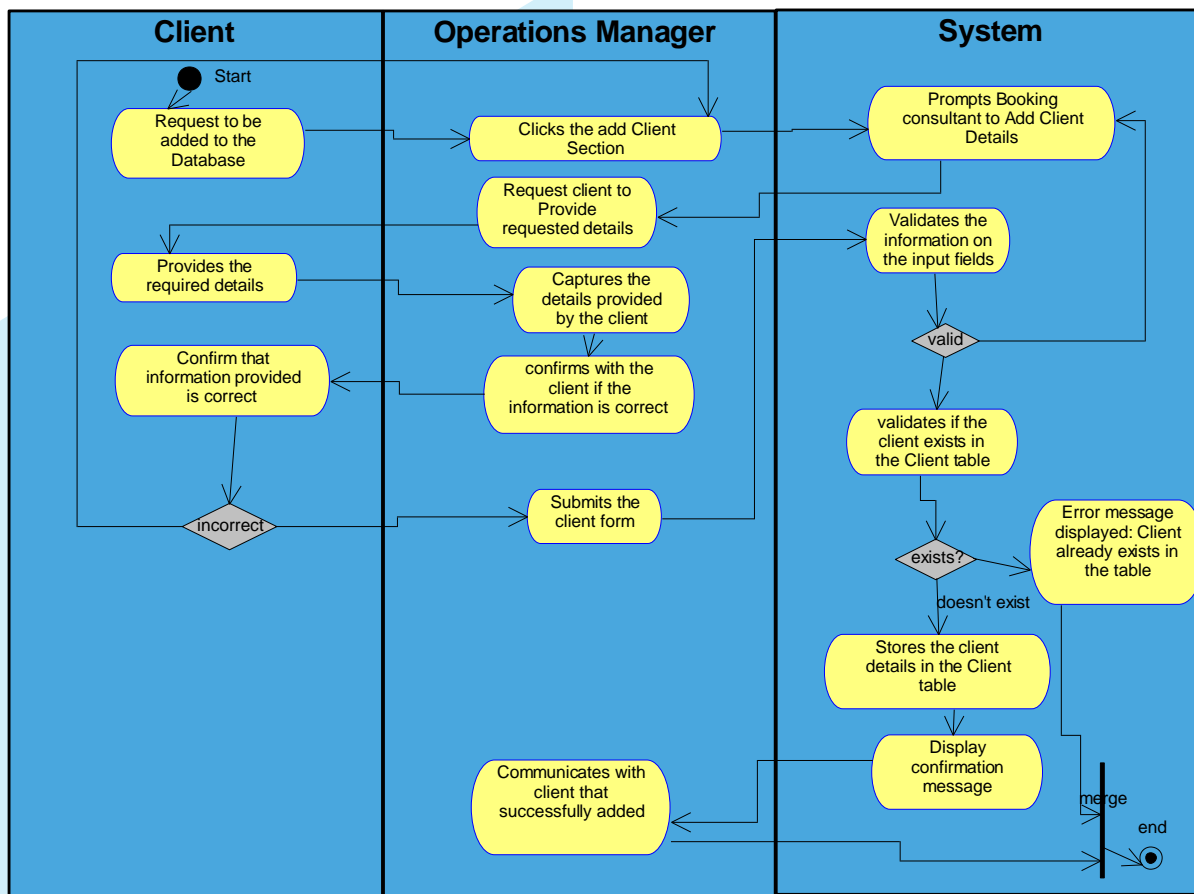


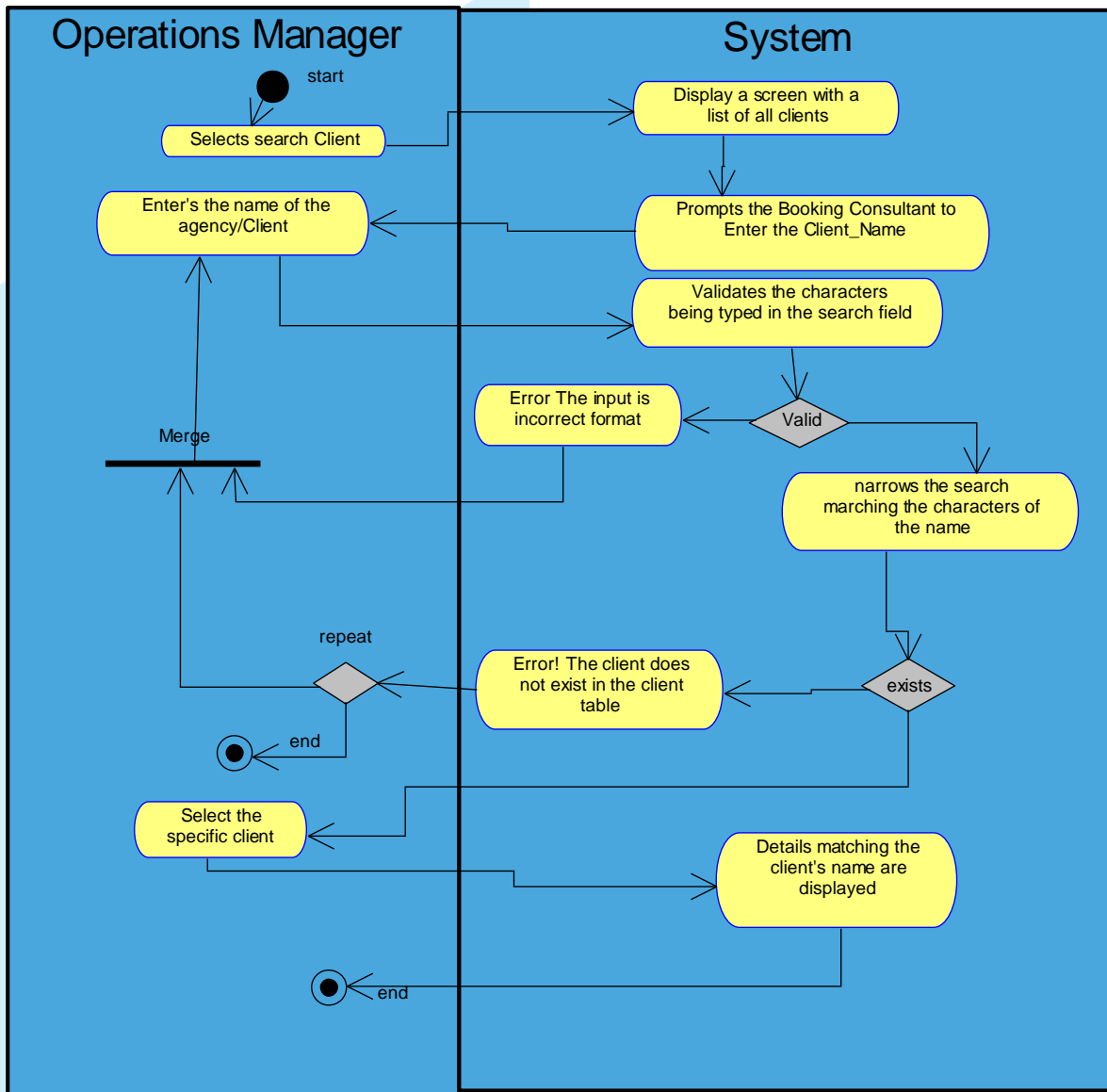


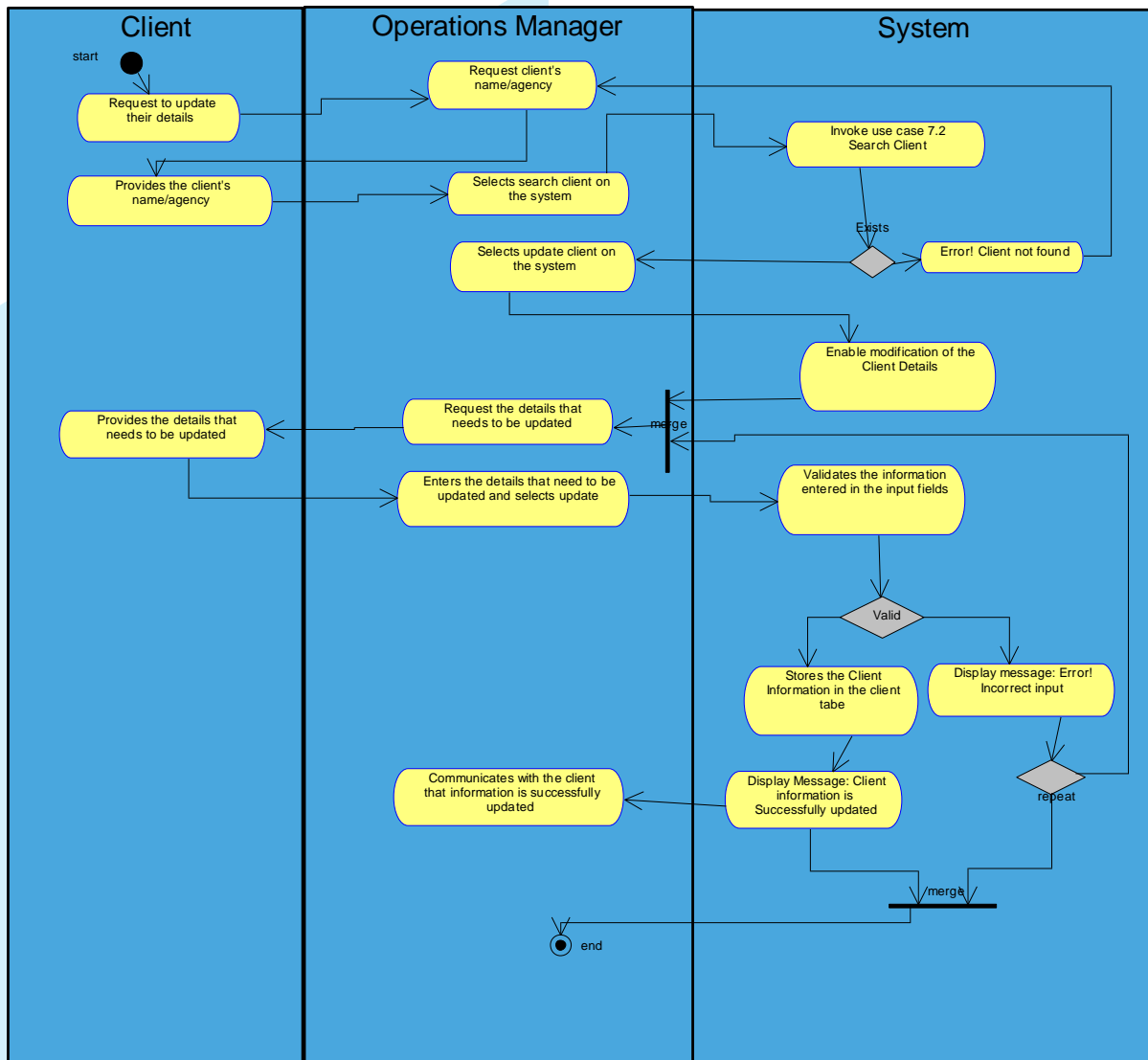


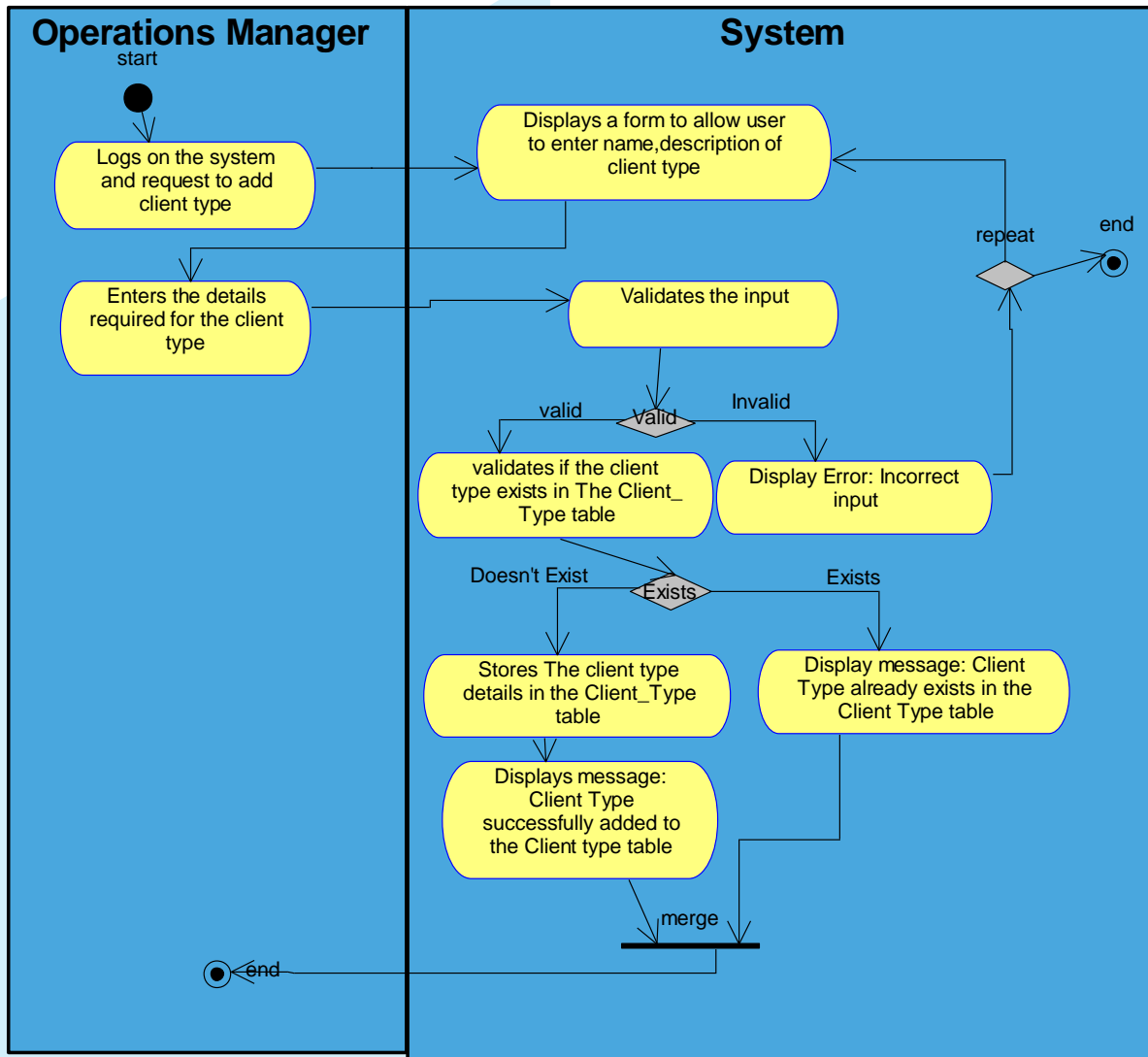


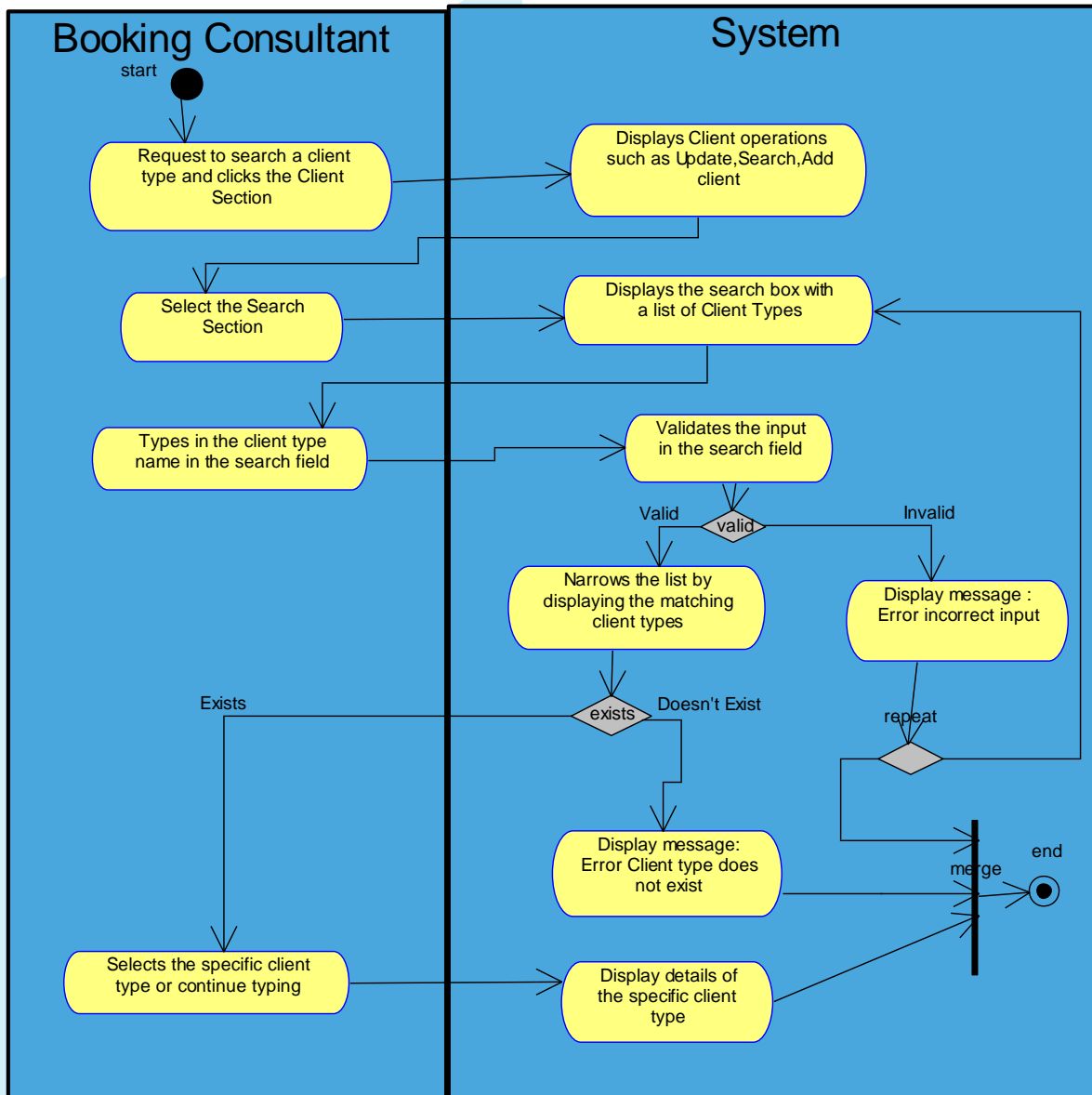


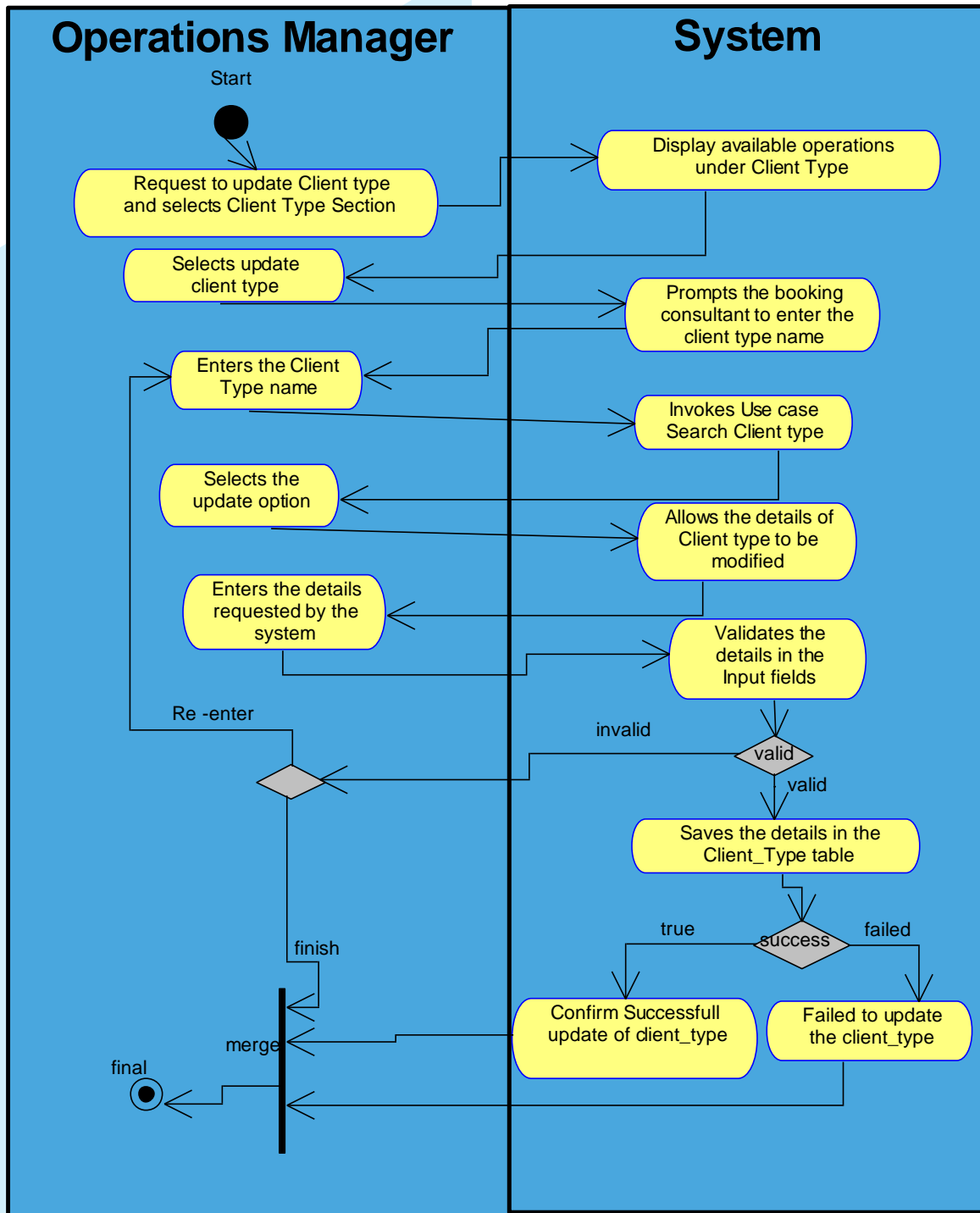


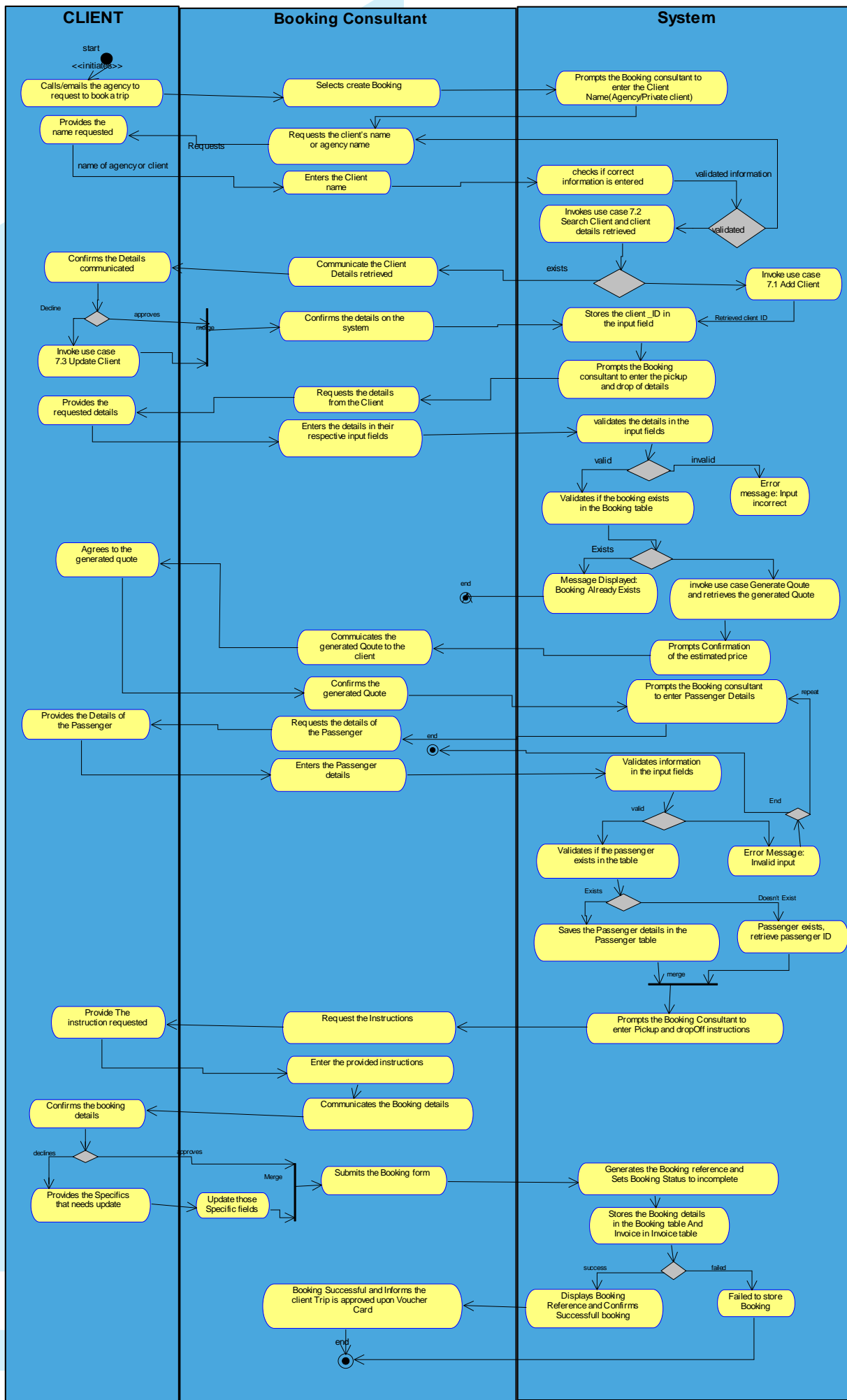


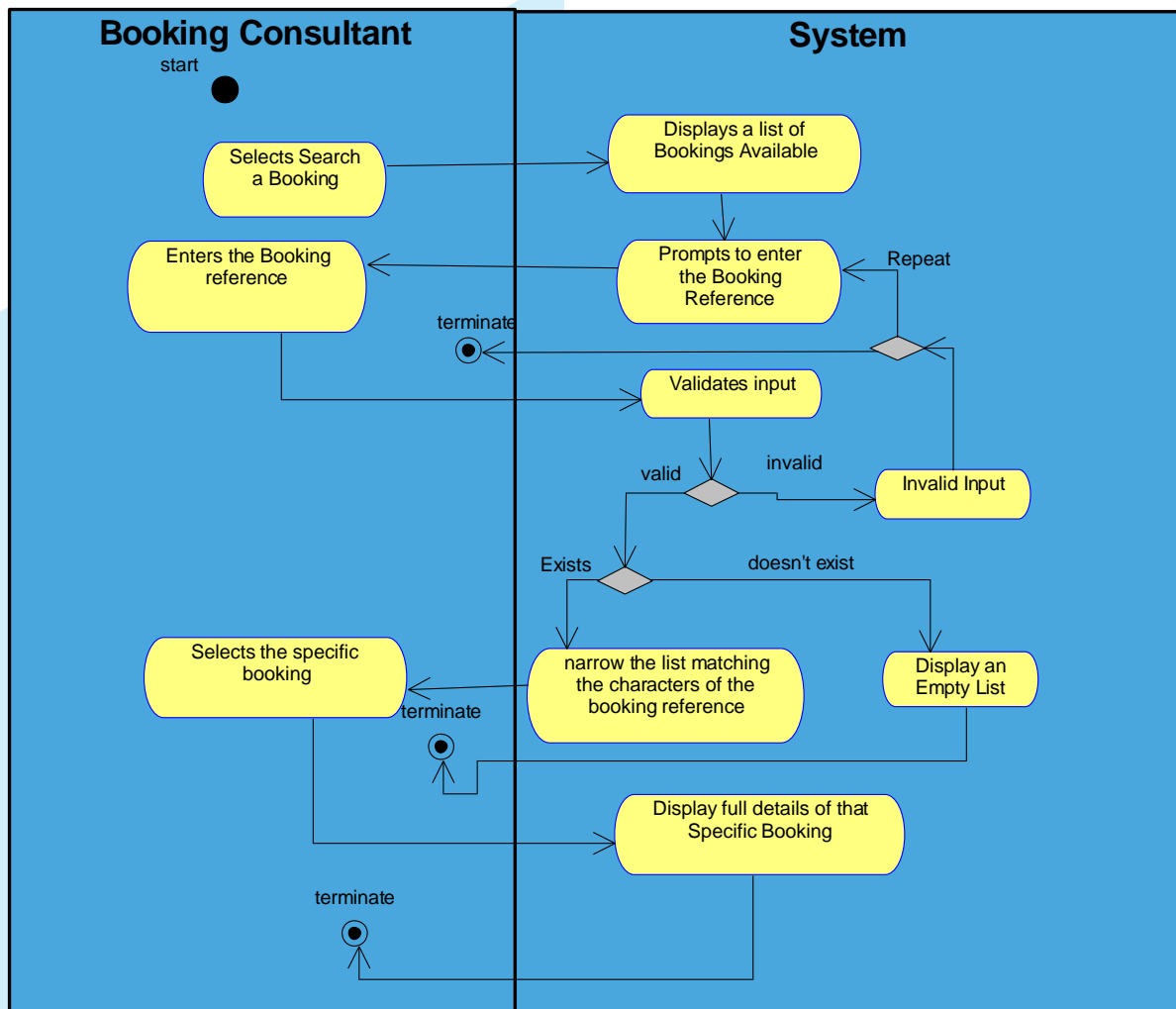


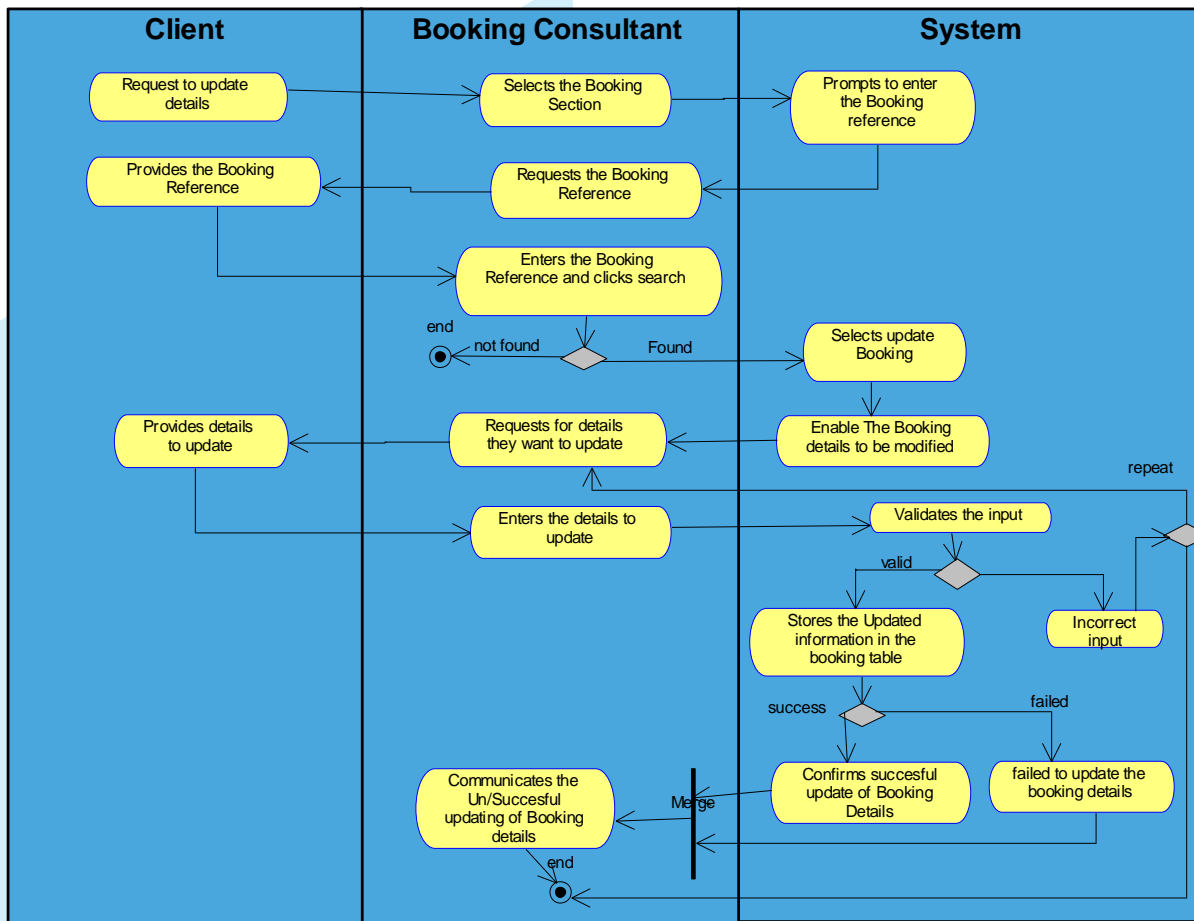


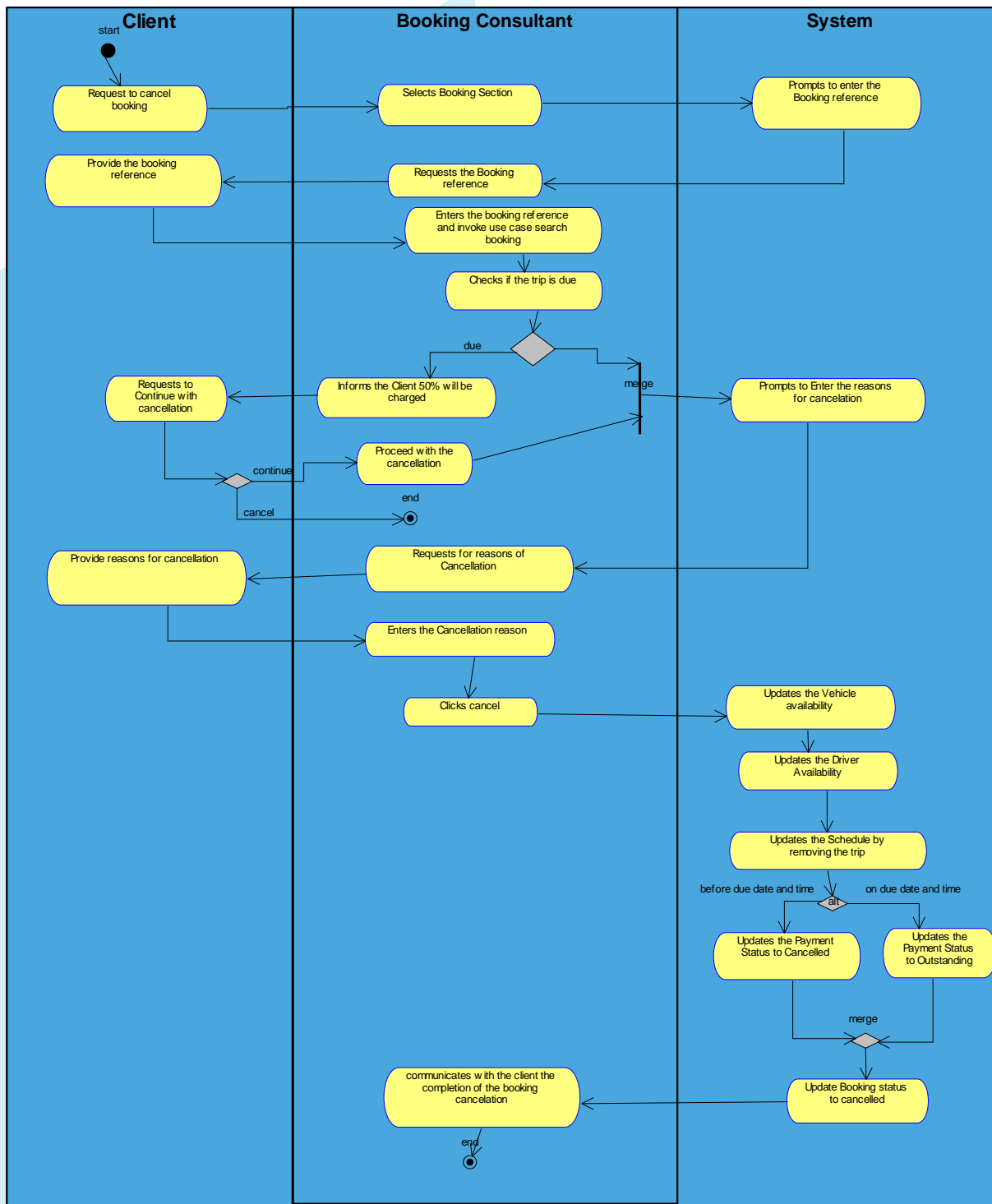


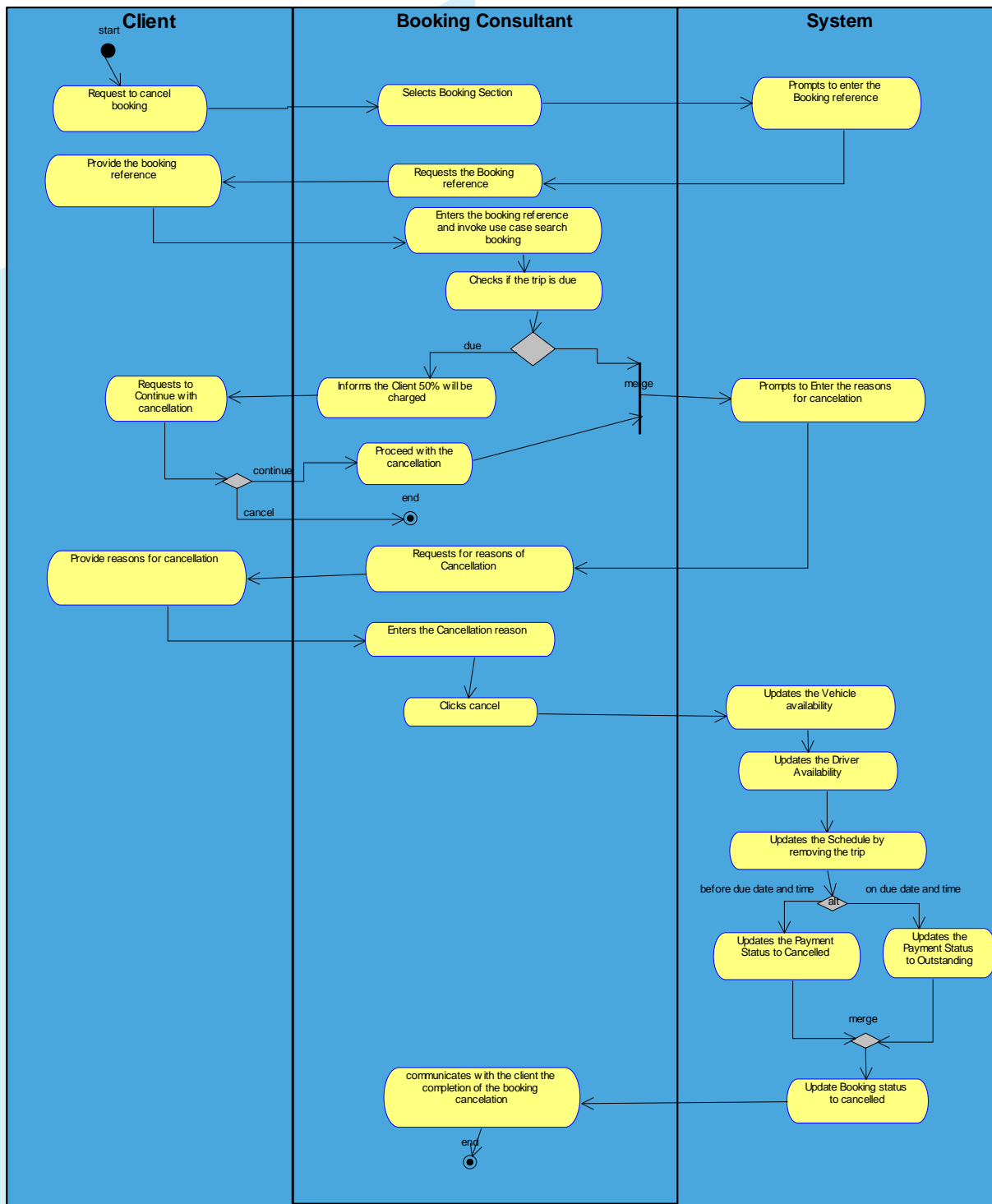


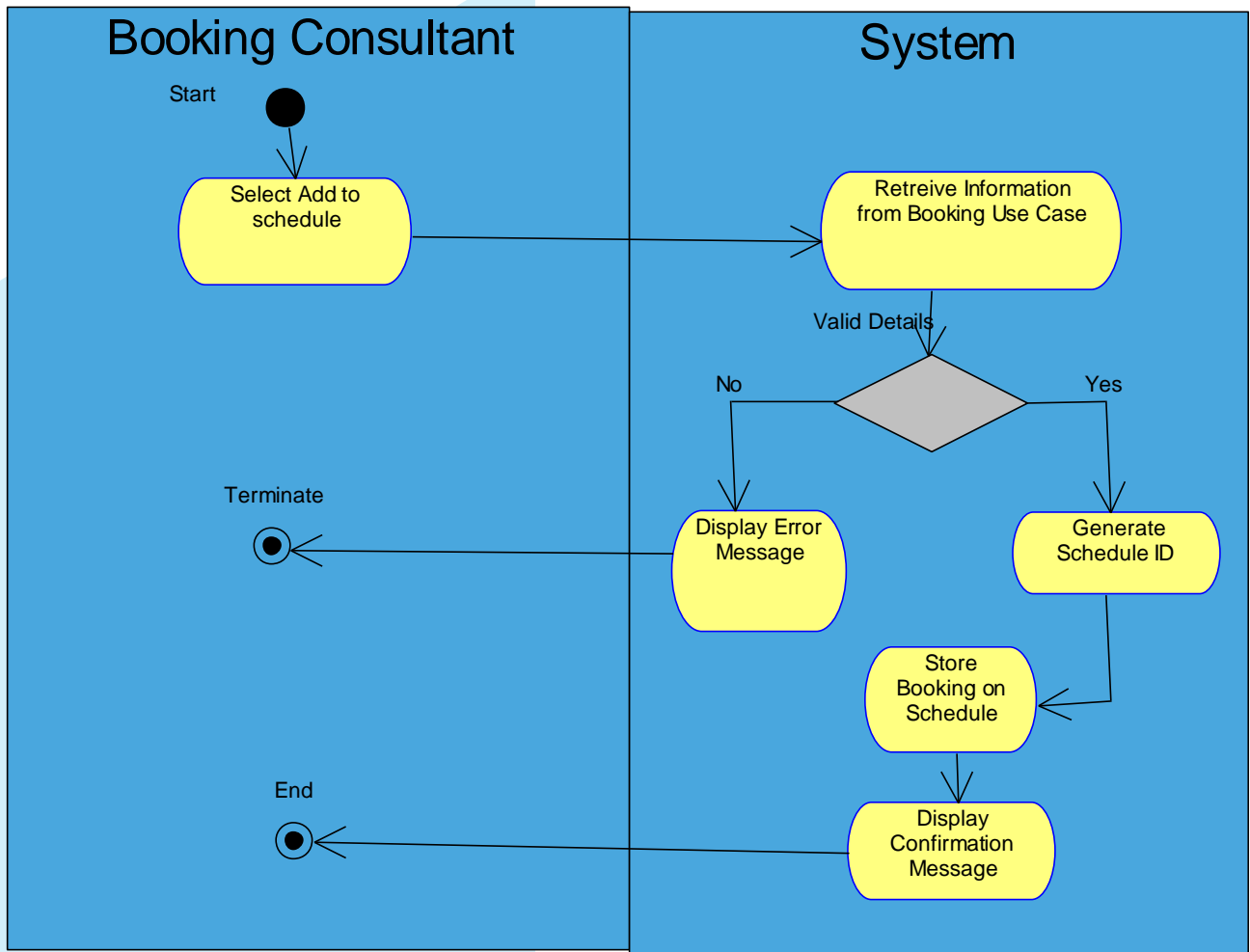


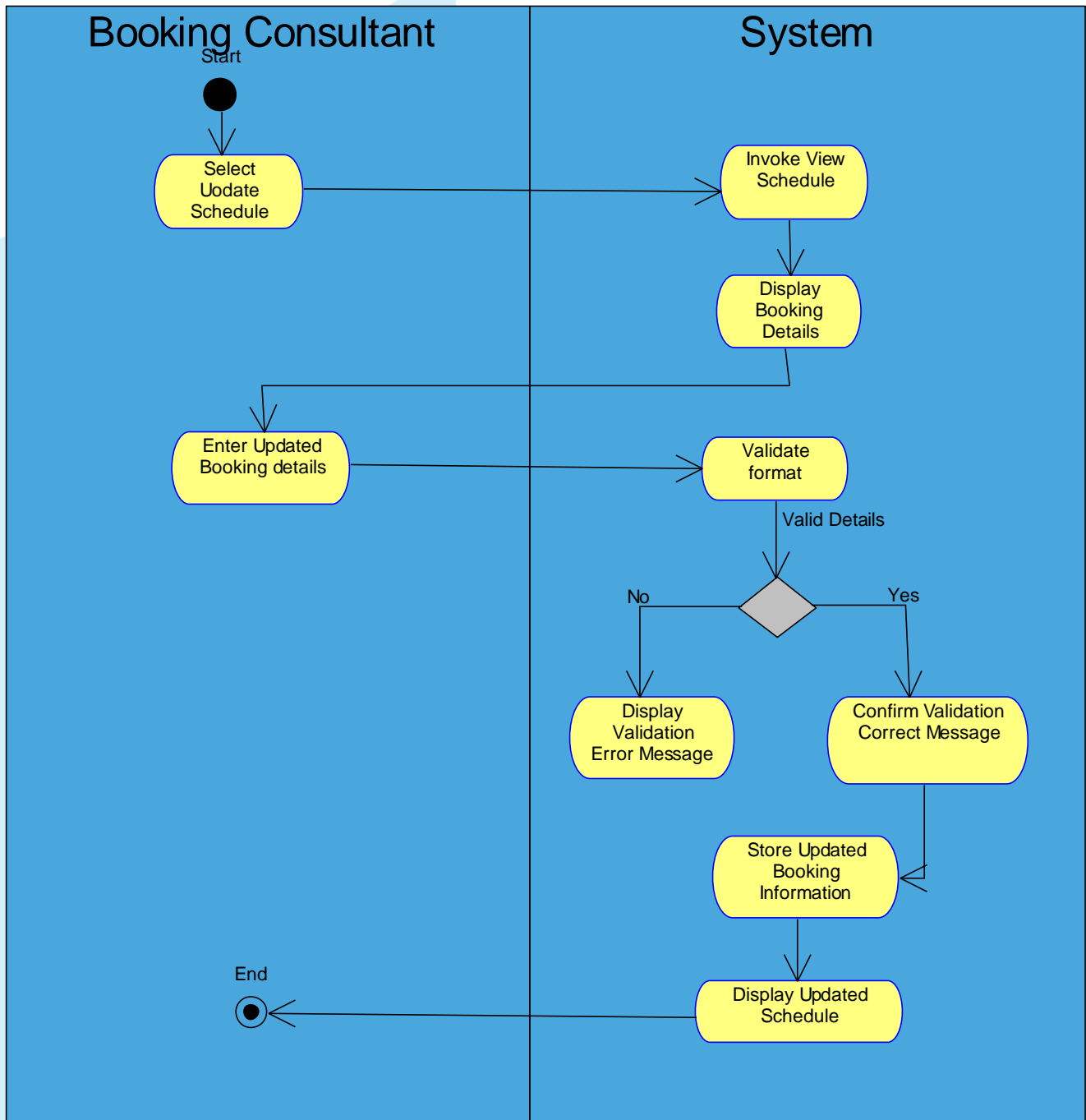


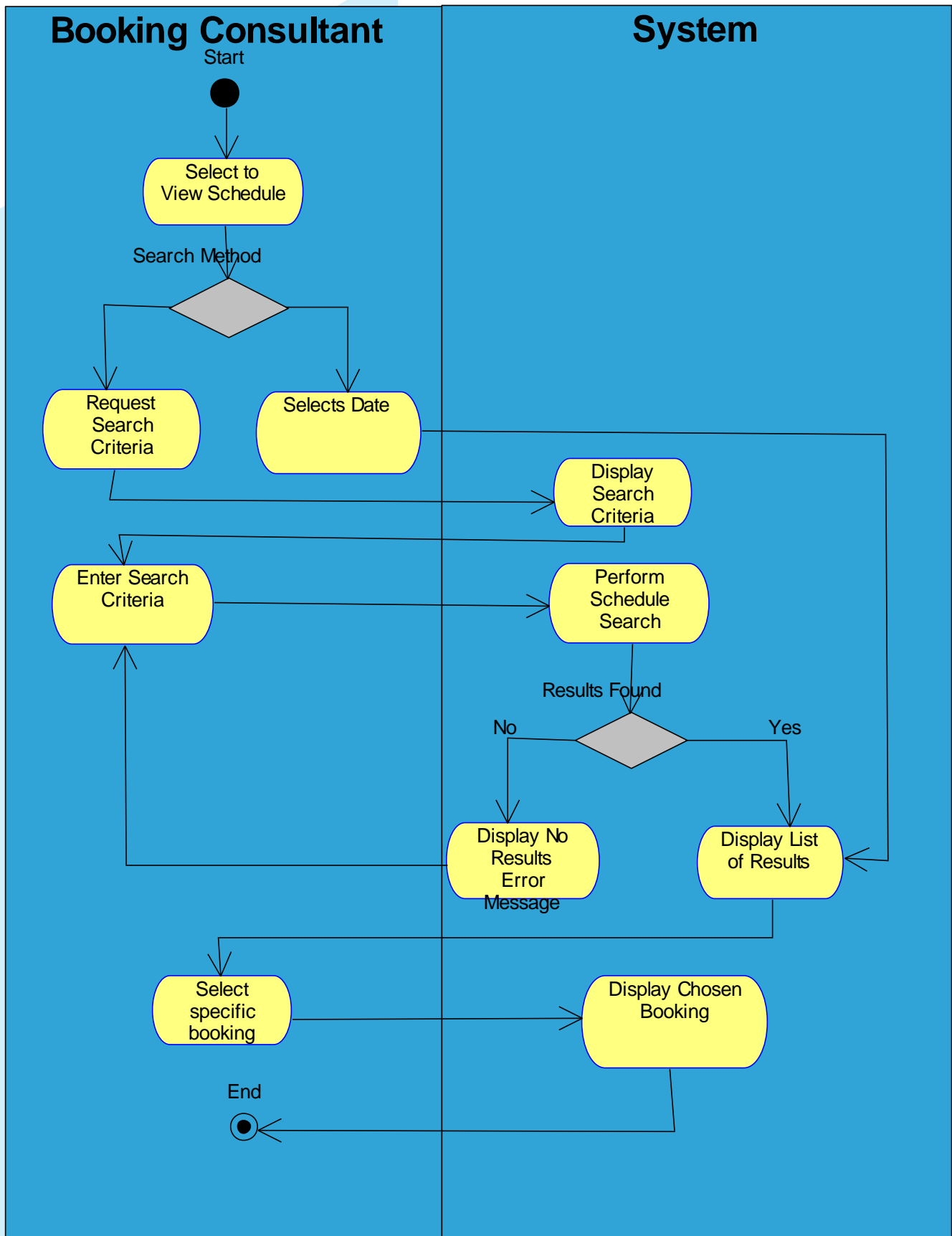


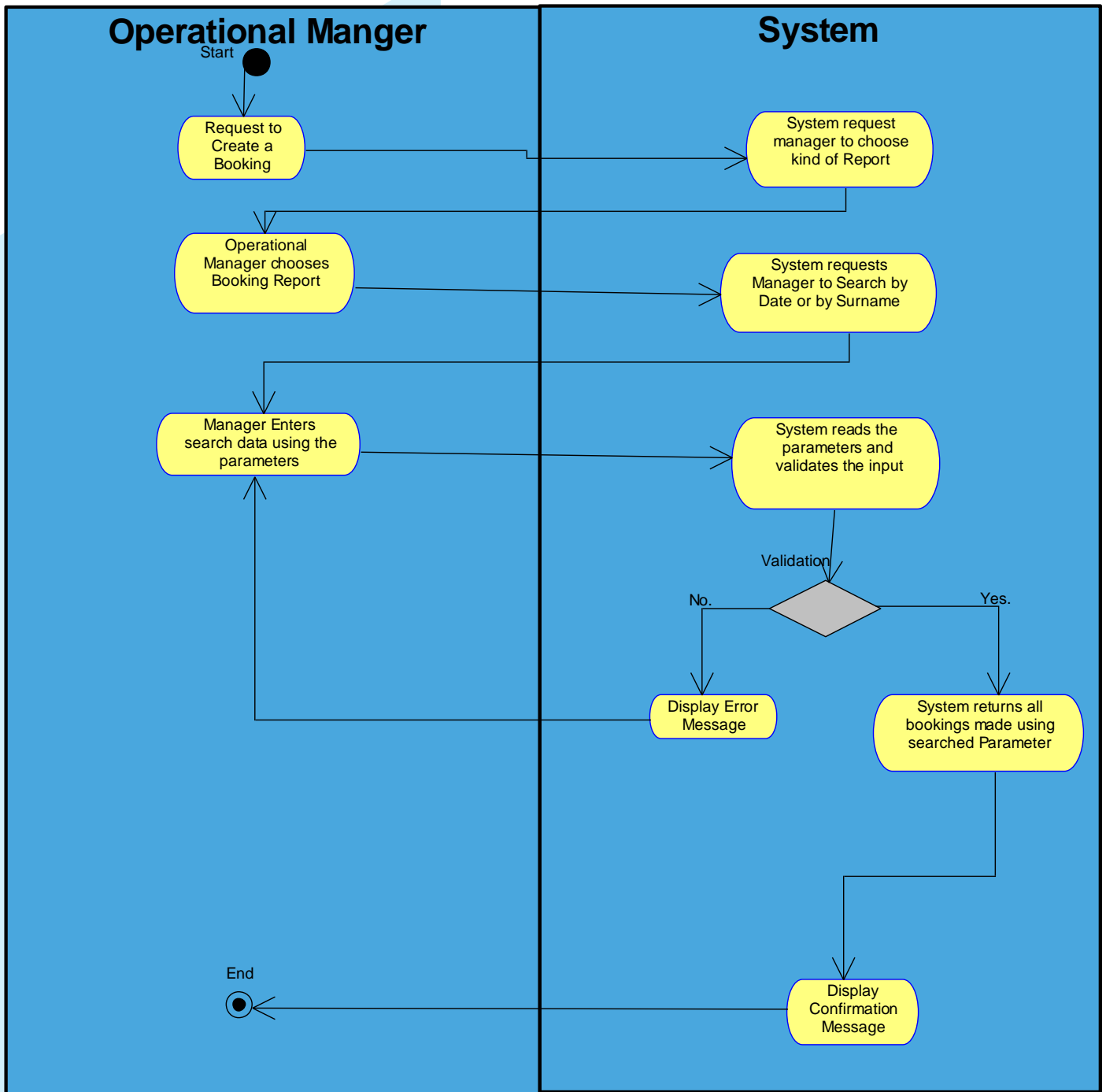


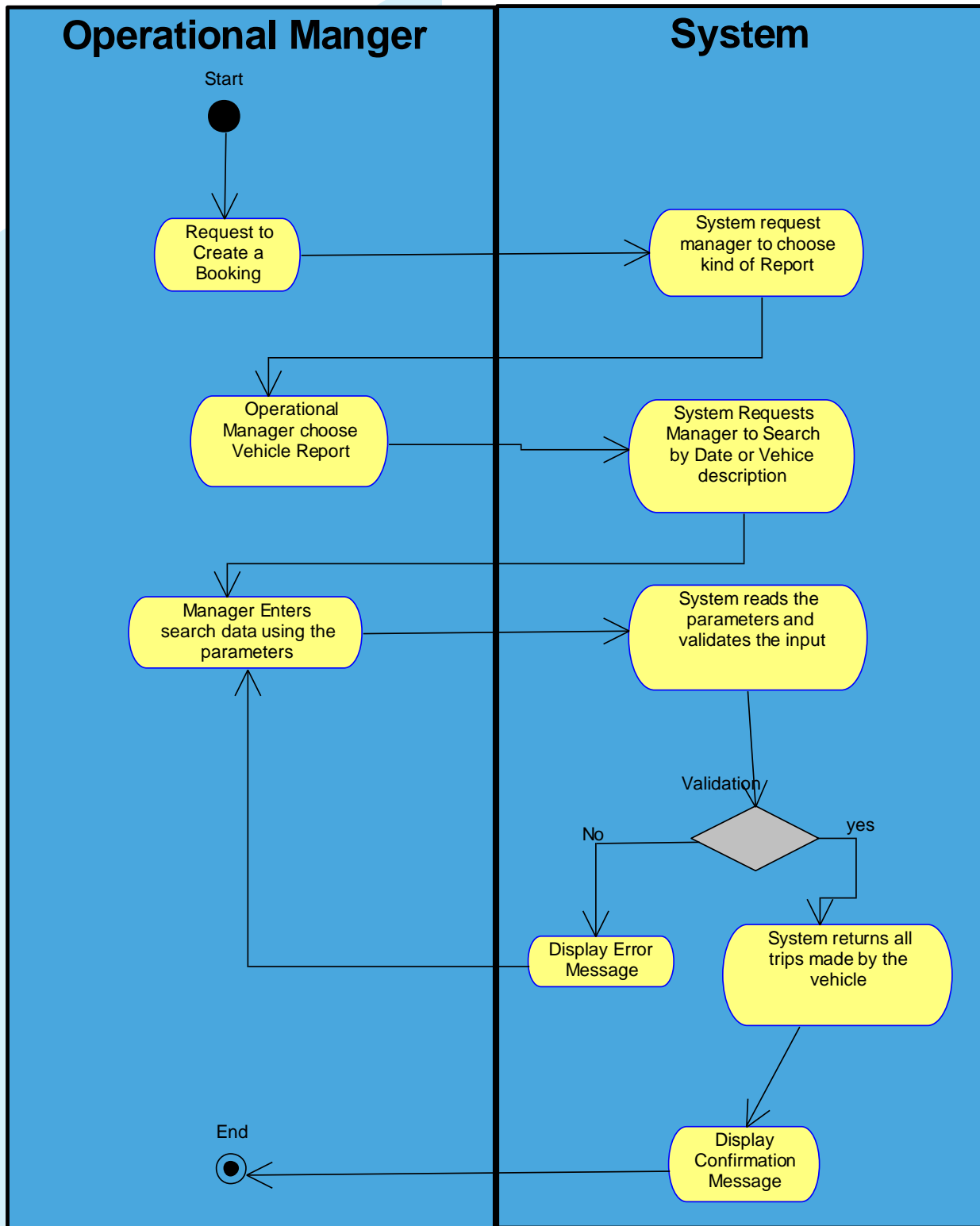


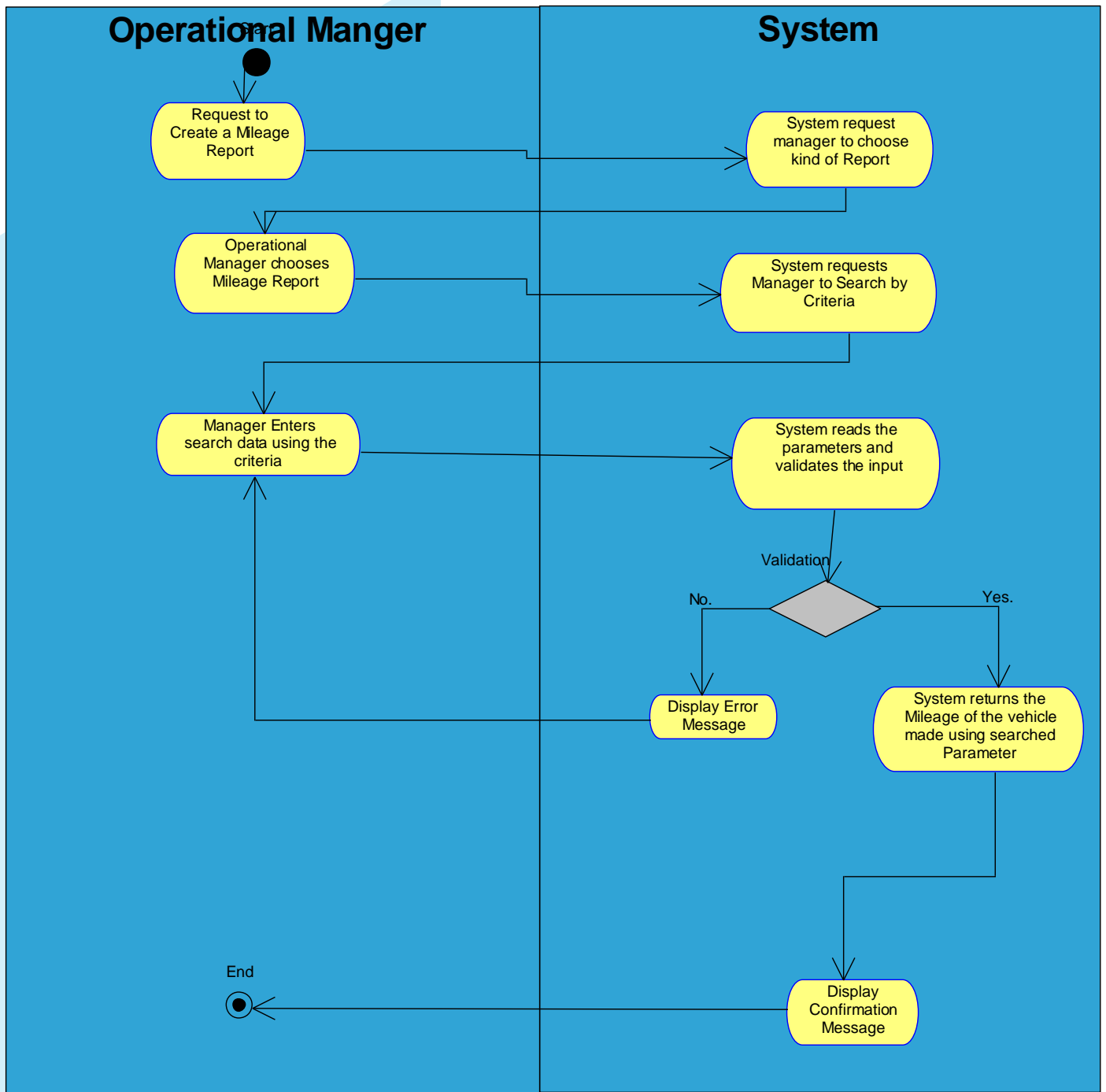


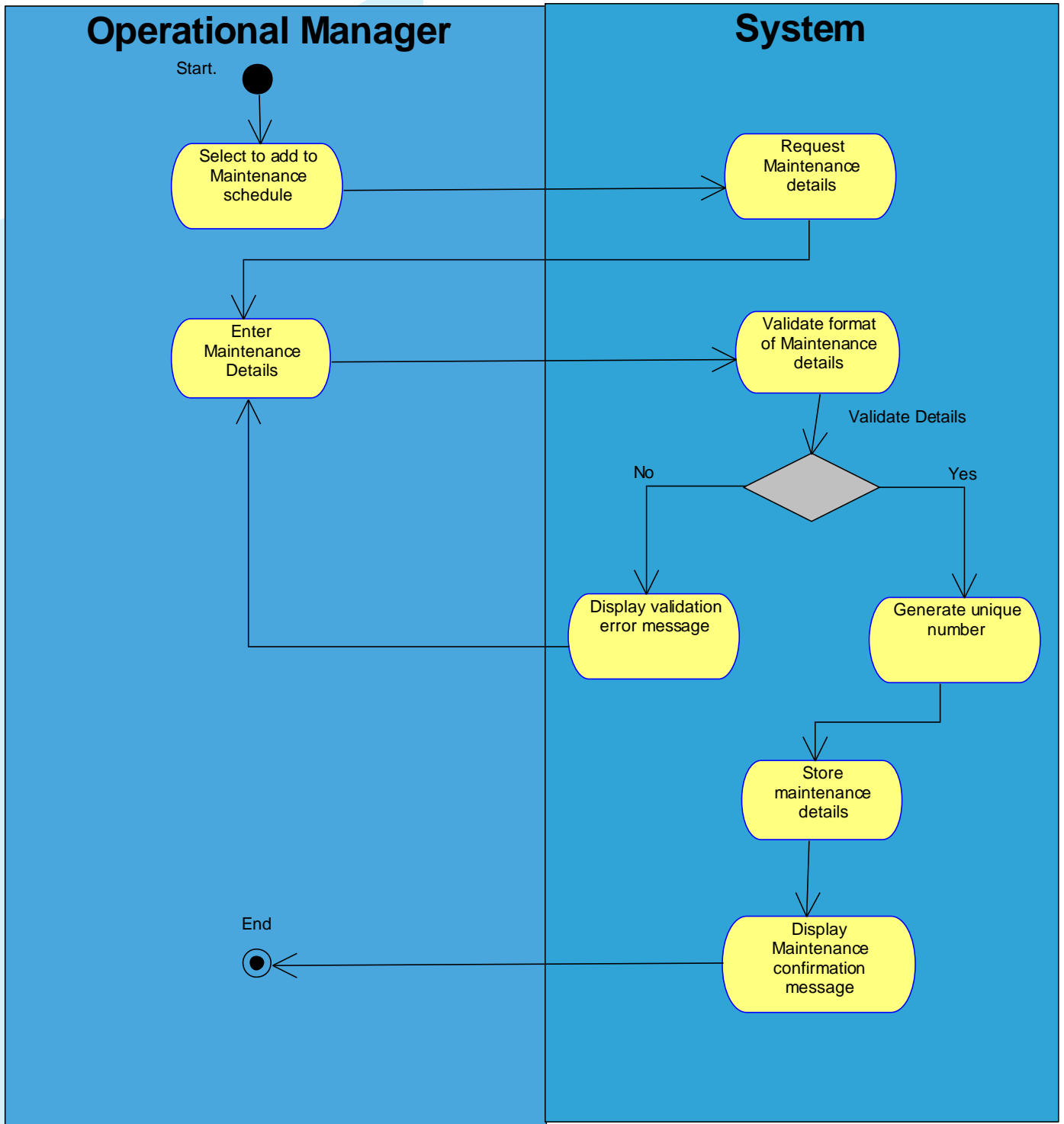


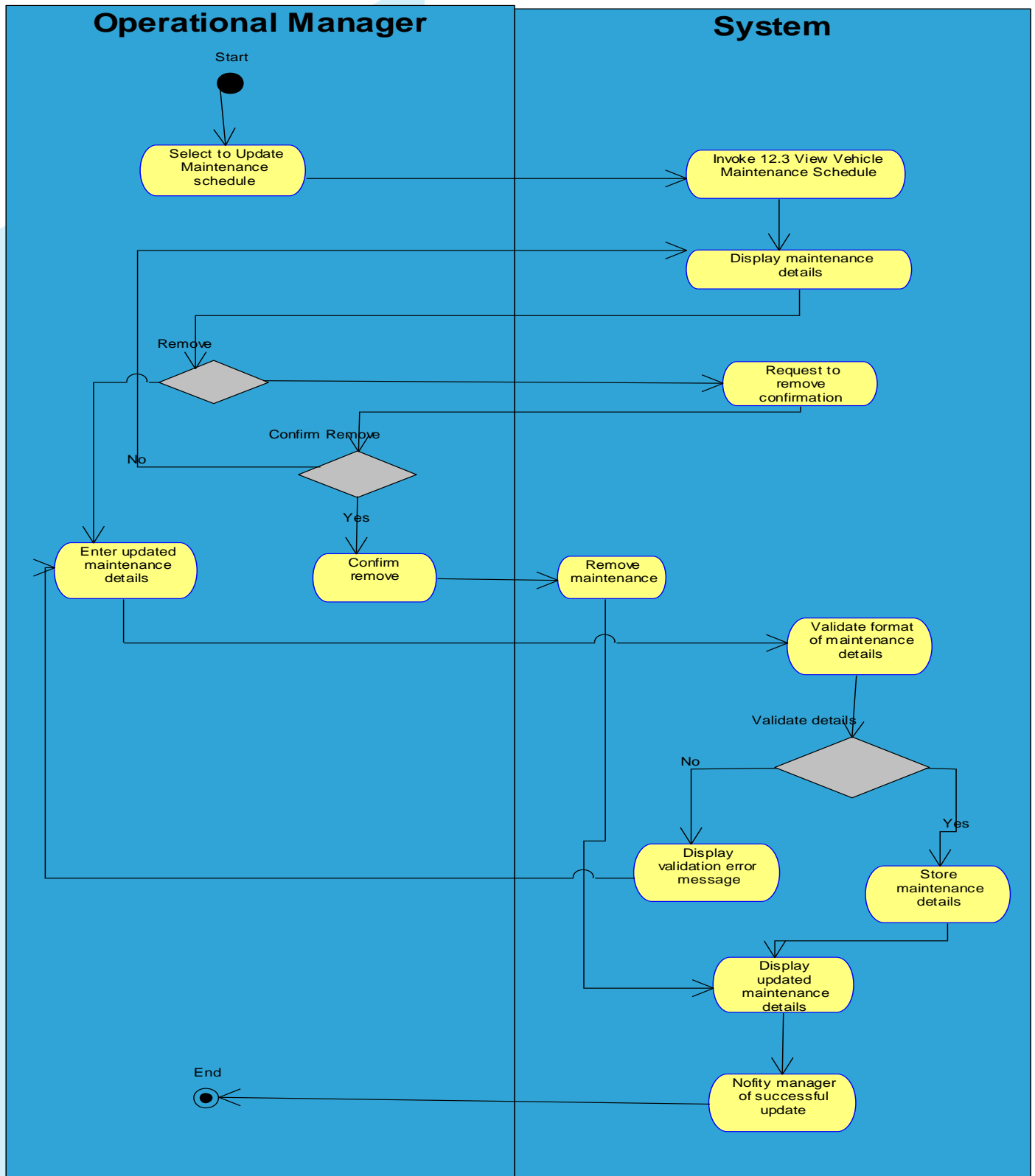


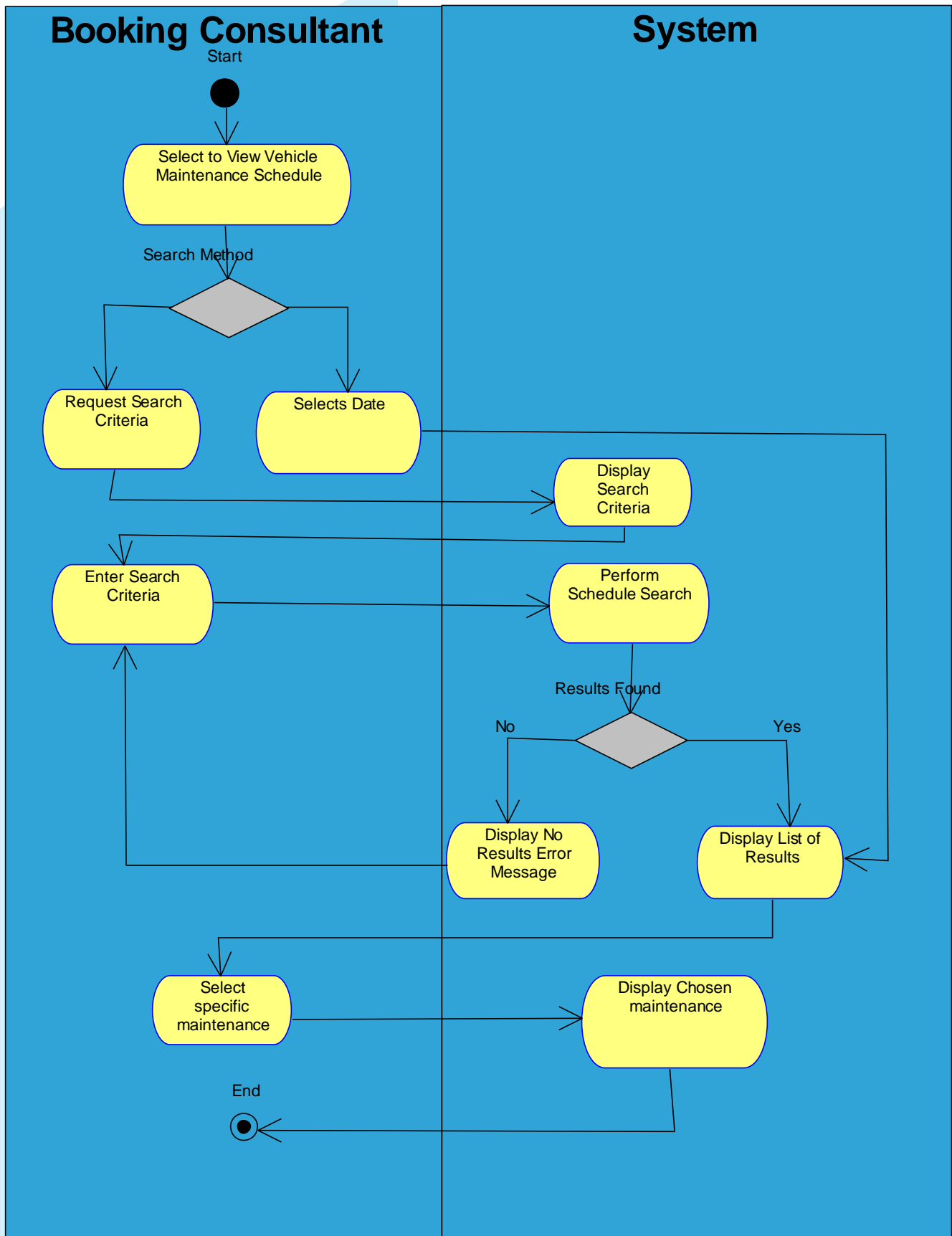


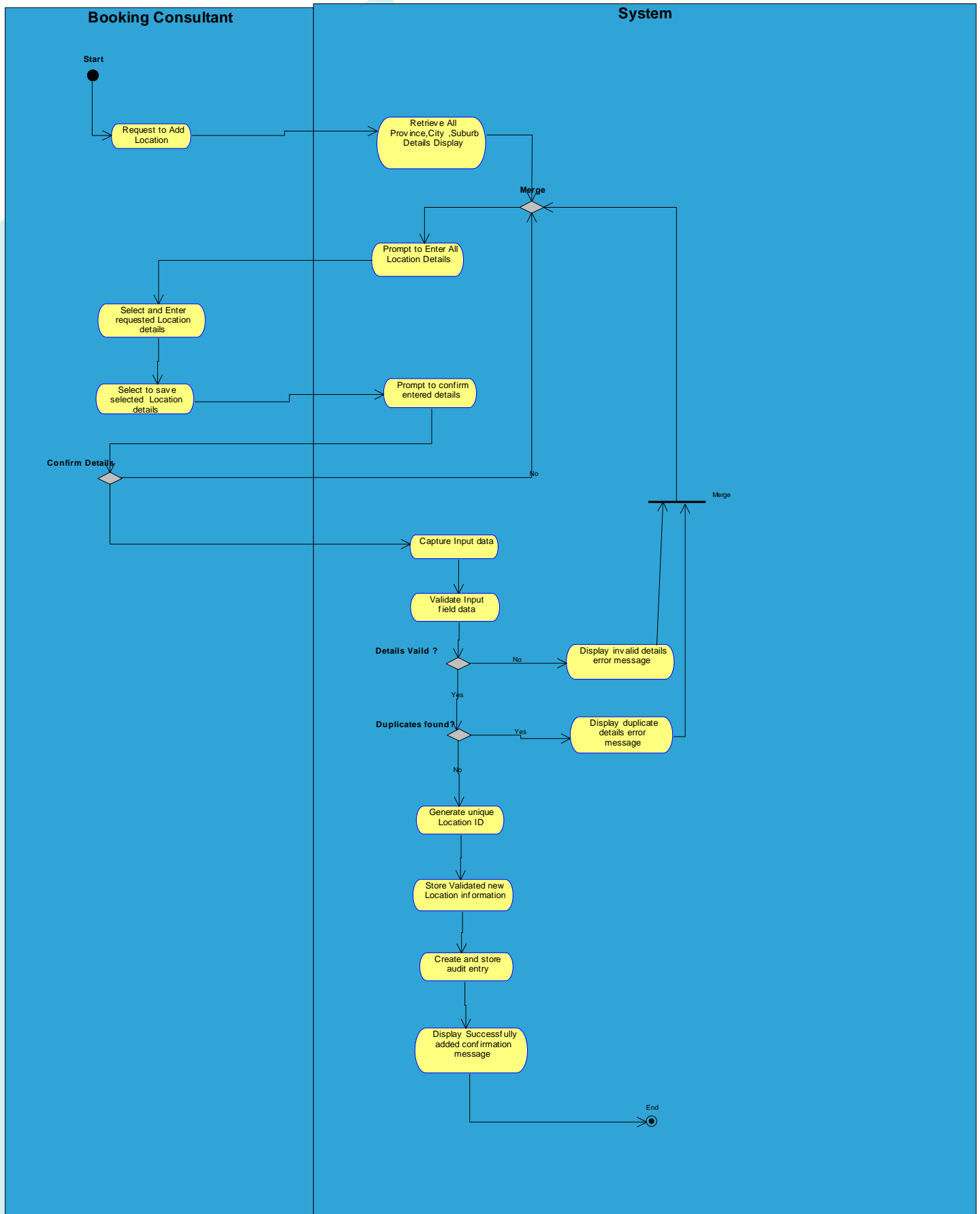


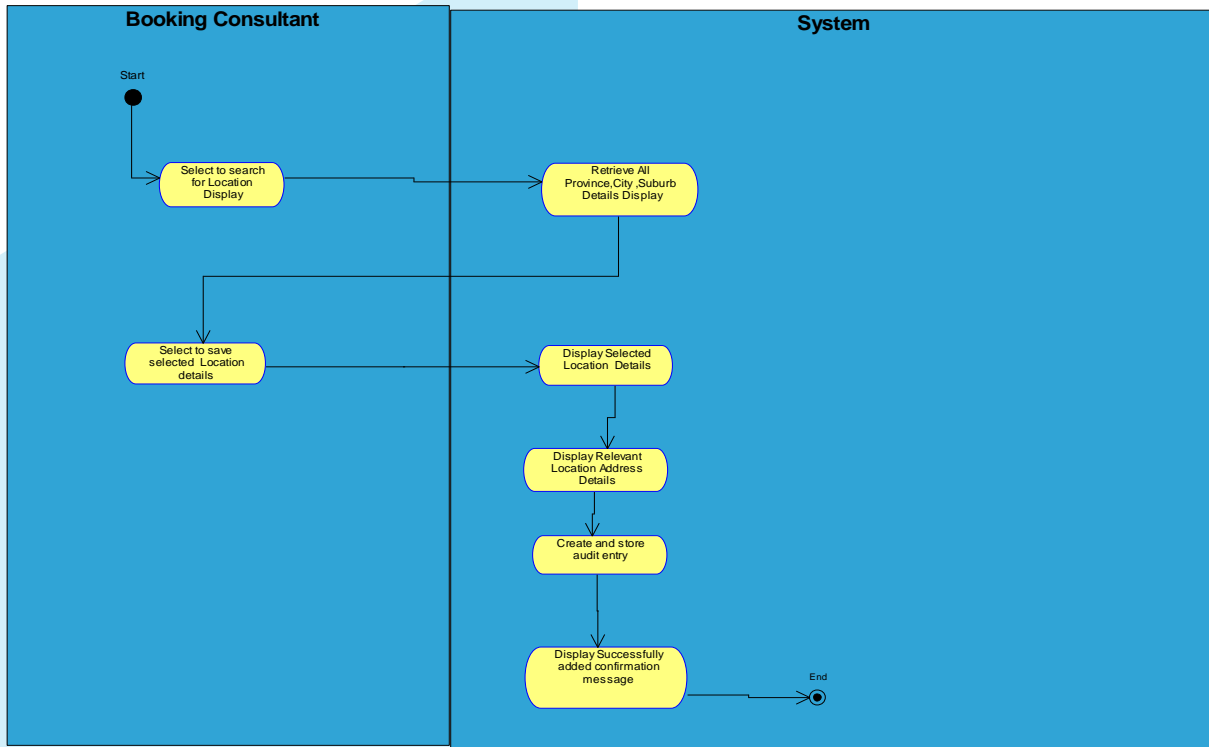


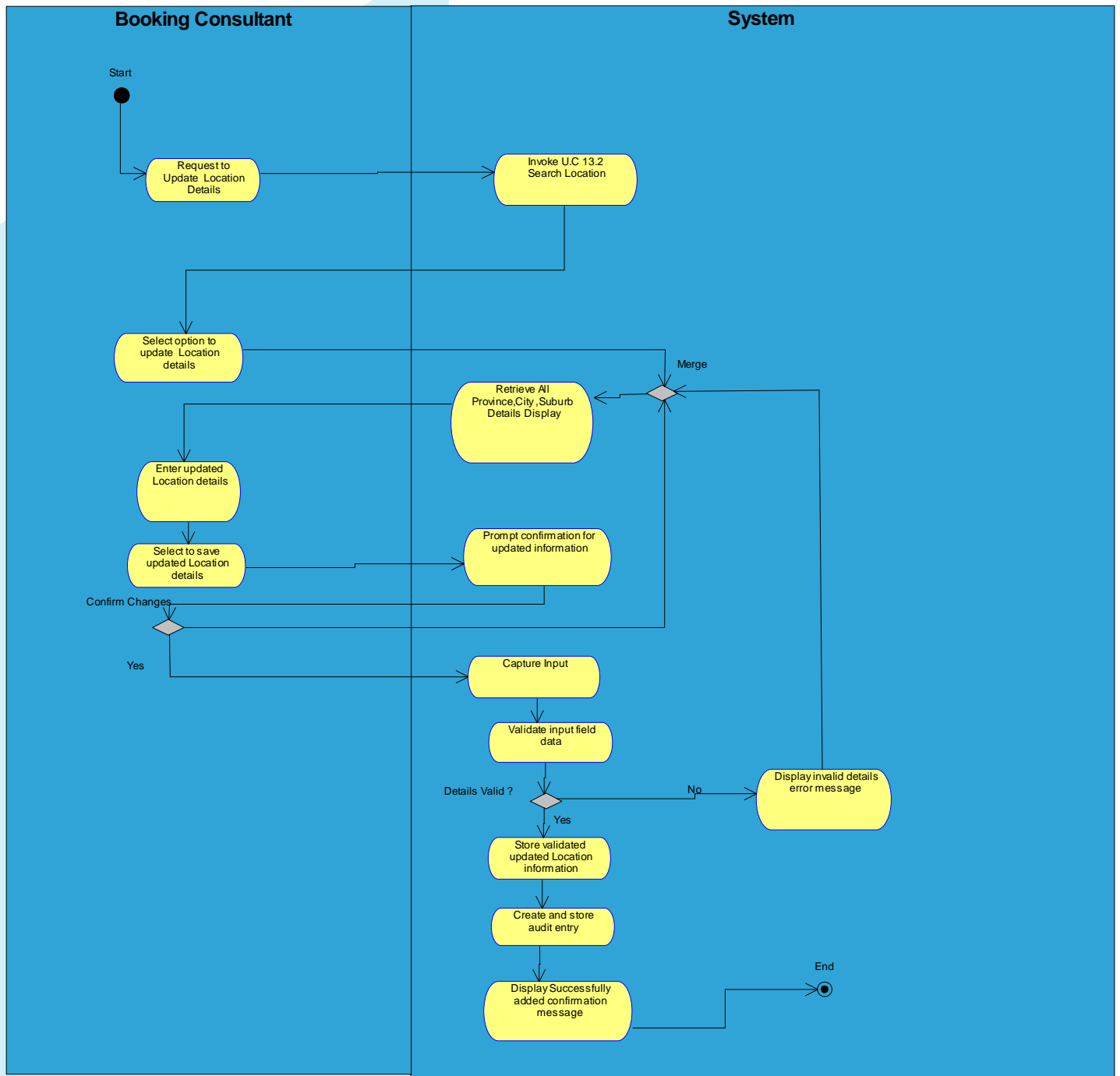


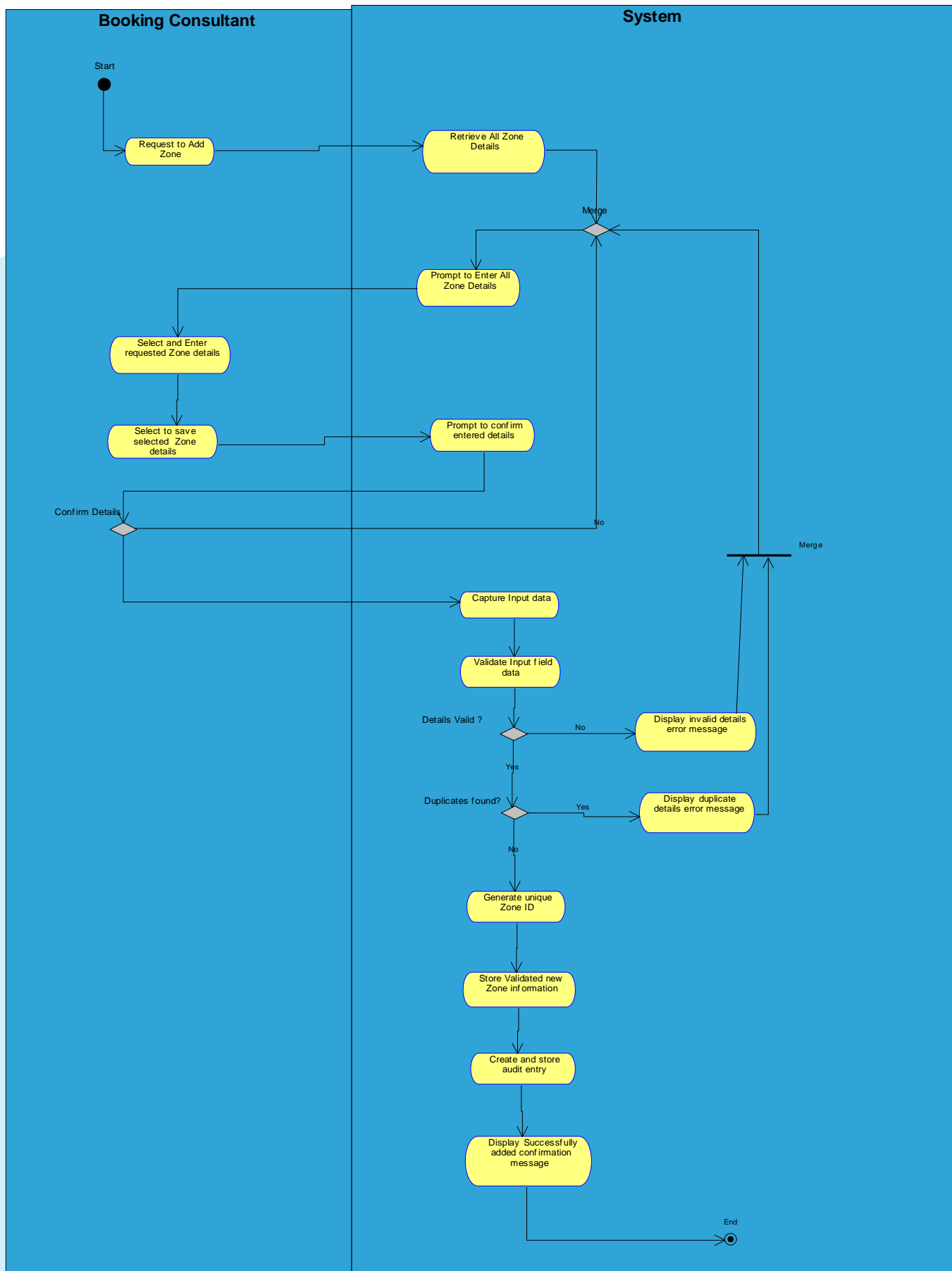


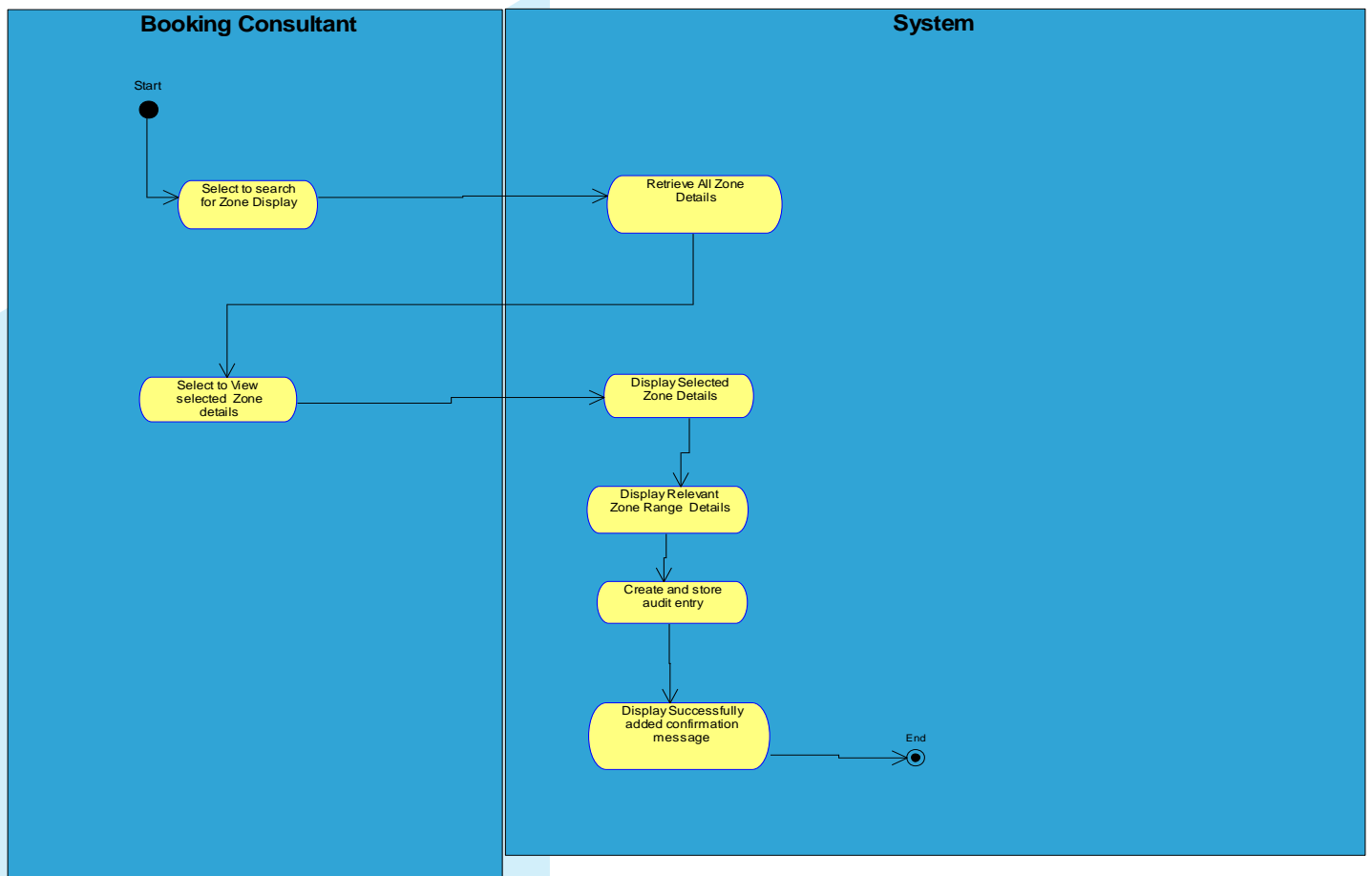


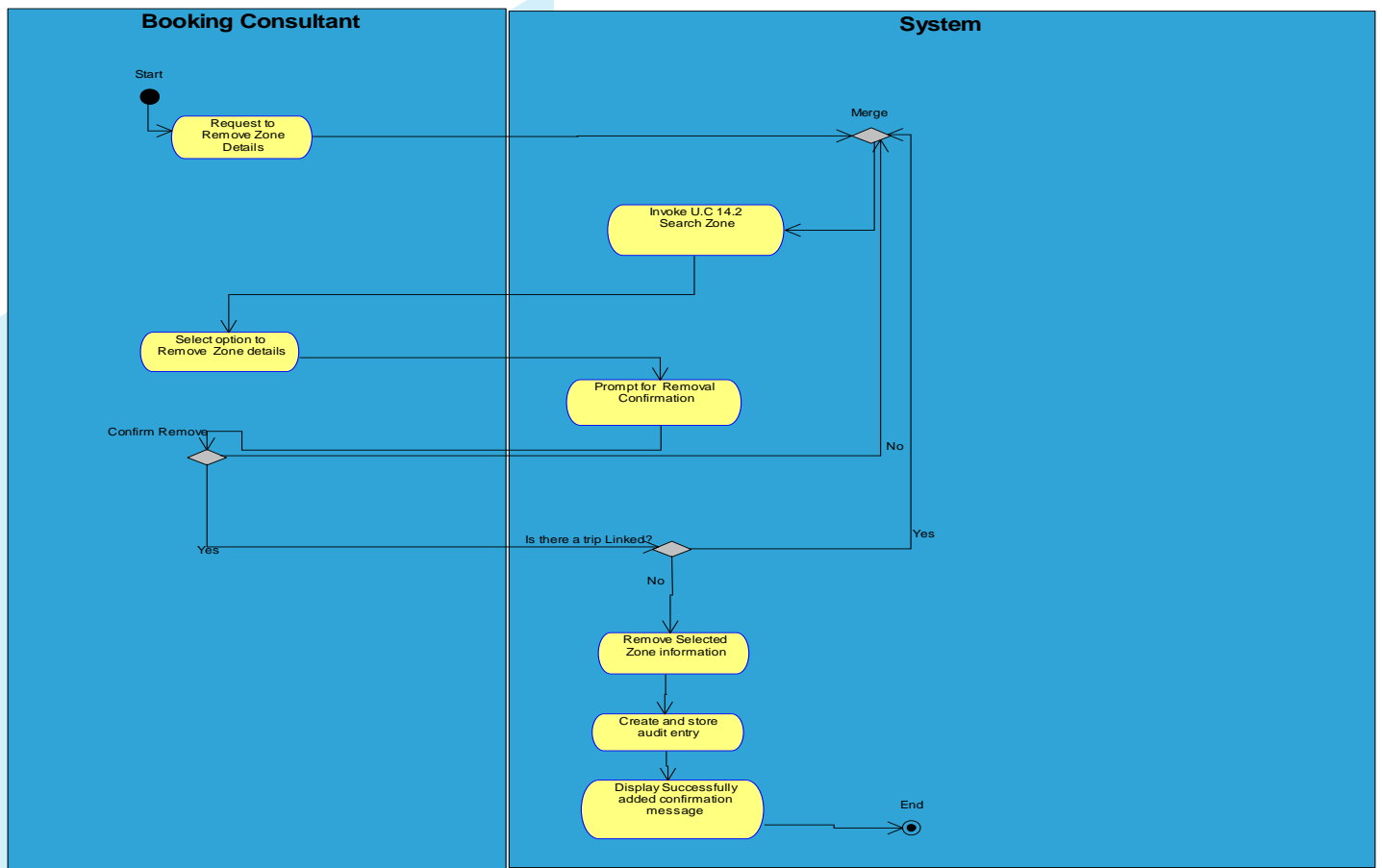


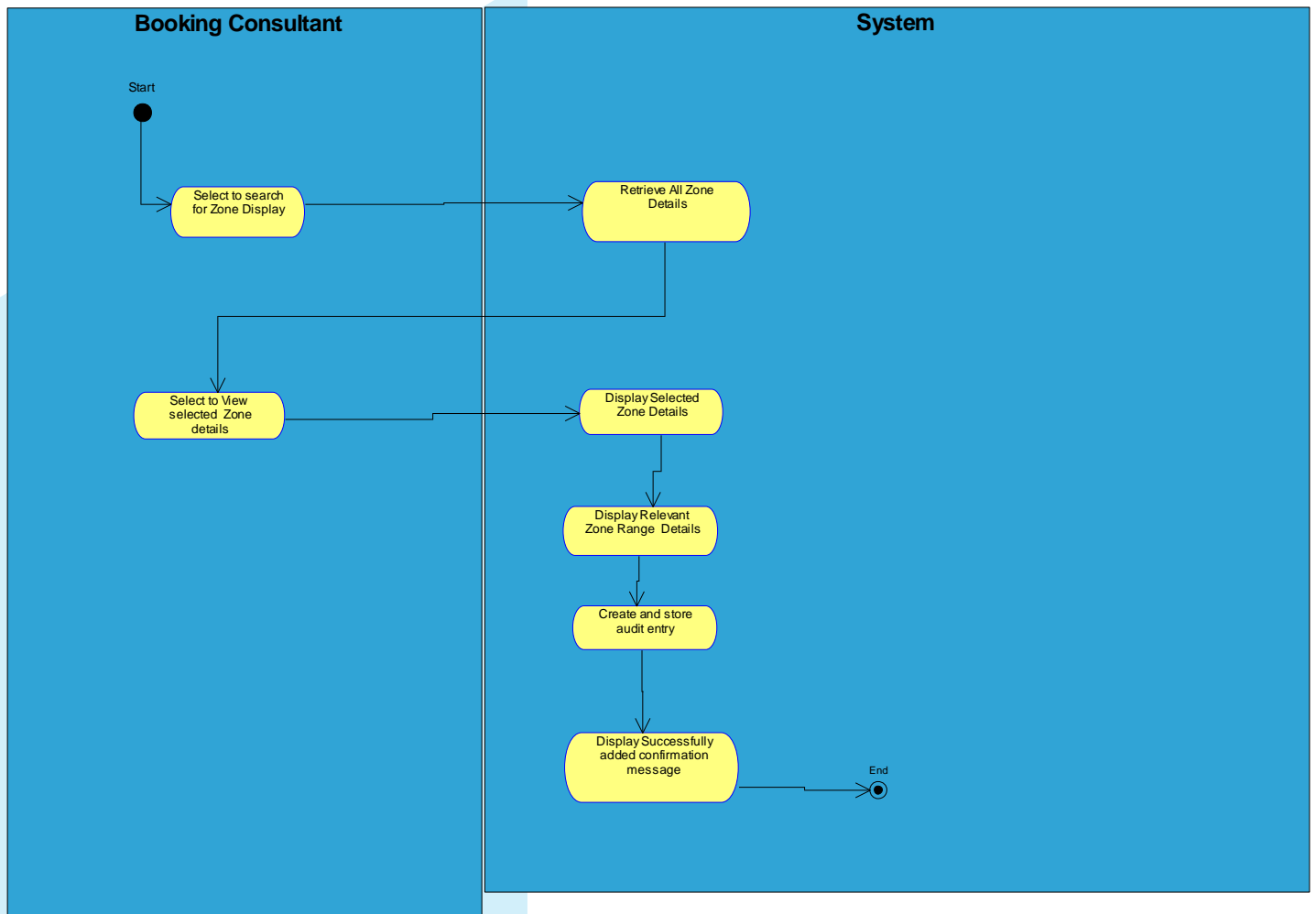


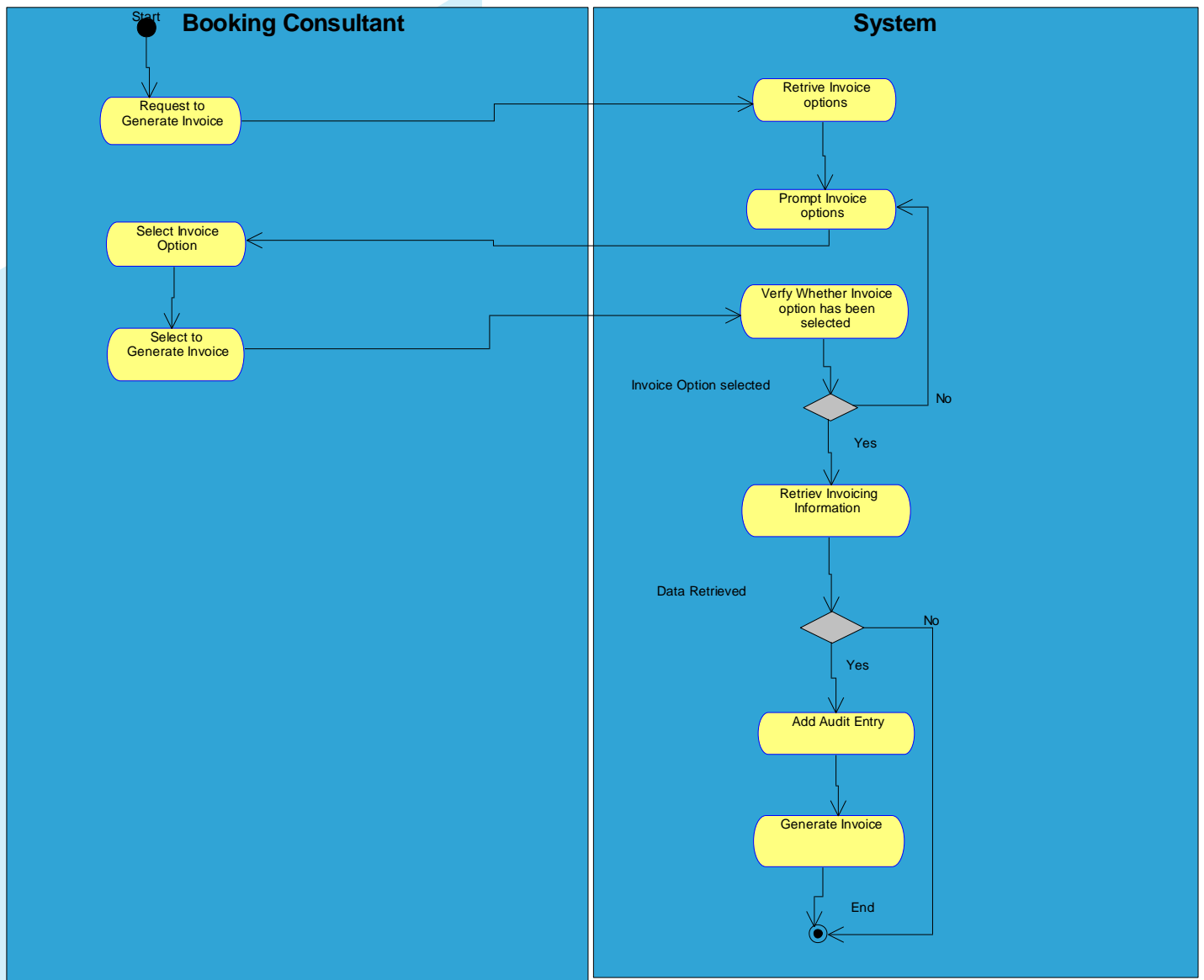












CONCLUSION

The section above provided an overview of how each user interacts with the system and how the system will respond when certain tasks are completed by the user.

5. DATA MODELLING

INTRODUCTION

This section contains the data model, showing all data that will be stored in the information system and the structure that the data will be placed into. The logical Entity Relationship Diagram illustrates the attributes used to describe each entity and the cardinality of the relationships between entities.

CONCLUSION

This section contained the data model, modeled using the logical Entity Relationship Diagram, representing the structure of the data in Third Normal Form.

6. INTERFACES AND OTHER INPUTS

INTRODUCTION

This section outlines the detailed interfaces and input depicted in the context diagram (See Section 3.1). This section will go into further detail showing the data used in processes from start to finish and also the description, purpose of input data, when the data will be used, the entities and attributes associated with entered data as well as the logical layout.

UseCase	Flow Line Description	Purpose	When Used	Entities and Attributes	Logical Layout
1.1.1	Add new access level	To trigger the process of adding an access level	Adding a new access level to the system		Provided by the employee
1.1.4	Enter access level details	To keep details about the new access level	Adding a new access level to the system	"AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Provided by the employee
1.1.6	Store access level details	To keep the new access level in the system	Adding a new access level to the system	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Selected by the employee
1.2.1	Update access level	To trigger the process of updating an access level	When an edit is required to an existing access level		Selected by the employee
1.2.6	Enter new details to access level	To update the access level with the new details entered	When an edit is required to an existing access level	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Provided by the employee
1.2.9	Store updated details	To update the access level with the new details entered	When an edit is required to an existing access level	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Selected by the employee

1.3.1	Request to search for an access level	To trigger the process of searching for an access level	When certain details are needed about an access level		Selected by the employee
1.3.4	Enter search details	To Know which details are to be searched for	When certain details are needed about an access level	AccessLevel_ID" "AccessLevel_Name" AccessLevel Entity	Provided by the employee
1.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an access level	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Provided by the employee

UseCase	Flow Line Description	Purpose	When Used	Entities and Attributes	Logical Layout
2.1.1	Request to register an employee	To trigger the process of adding an employee	Adding a new employee to the system		Provided by the employee
2.1.4	Enter employee details	To keep details about the new employee	Adding a new employee to the system	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Provided by the employee
2.1.7	Store employee details	To keep the new employee in the system	Adding a new employee to the system	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Selected by the employee
2.2.1	Request to update employee	To trigger the process of updating an employee	When an edit is required to an existing employee		Selected by the employee
2.2.6	Enter new details to employee	To update the employee with the new details entered	When an edit is required to an existing employee	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Selected by the employee
2.2.9	Store updated employee details	To update the employee with the new details entered	When an edit is required to an existing employee	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Selected by the employee

2.3.1	Request to search for an employee	To trigger the process of searching for an employee	When certain details are needed about an employee		Selected by the employee
2.3.4	Enter employee search details	To know which details are to be searched for	When certain details are needed about an employee	"EMP_Name" "EMP_Surname" "EMP_TypeID" Employee entity	
2.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an employee	"EMP_Name" "EMP_Surname" "EMP_TypeID" Employee entity	Selected by the employee

UseCase	Flow Line Description	Purpose	When Used	Entities and Attributes	Logical Layout
3.1.1	Request to register an employee type	To trigger the process of adding an employee type	Adding a new employee type to the system		Selected by the employee
3.1.4	Enter employee type details	To keep details about the new employee type	Adding a new employee type to the system	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Provided by the employee
3.1.7	Store employee type details	To keep the new employee type in the system	Adding a new employee type to the system	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Provided by the employee
3.2.1	Request to update employee type	To trigger the process of updating an employee type	When an edit is required to an existing employee type		Provided by the employee
3.2.6	Enter new details to employee type	To update the employee type with the new	When an edit is required to an existing	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Provided by the employee

UseCase	Flow Line Description	Purpose	When Used	Entities and Attributes	Logical Layout
		details entered	employee type		
3.2.9	Store updated employee type details	To update the employee type with the new details entered	When an edit is required to an existing employee type	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.3.1	Request to search for an employee type	To trigger the process of searching for an employee type	When certain details are needed about an employee type		Provided by the employee
3.3.4	Enter employee type search details	To know which details are to be searched for	When certain details are needed about an employee type	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Provided by the employee
3.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an employee type	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.3.1	Request to remove employee type	To trigger the process of removing an employee type	So that the employee type can no longer be used anymore		Provided by the employee
3.3.5	Enter the employee type details	To know which employee type is to be removed	So that the employee type can no longer be used anymore	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Provided by the employee
3.3.8	Disable the employee type	To prevent further use of the employee type	So that the employee type can no longer be used anymore	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee

Use Case No.	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
4.1 Search driver	4.1a	Search driver prompt	Triggering input to begin the search driver process	When the booking consultant wants to search a driver	-	Requested to search by booking consultant
	4.1b	Character information	To enter character information	When the booking consultant wants to enter characters of the driver name they are searching for	DRIVER <ul style="list-style-type: none"> - Driver_ID - Driver_Name 	Entered by booking consultant
4.2 Check driver availability	4.2a	Check driver availability prompt	To trigger the system to start the check availability process	When the booking consultant wants to check available drivers	SLOT <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time 	Requested to check by booking consultant
4.3 Assign driver to trip	4.3a	Assign driver availability prompt	To trigger the process that assigns a vehicle to a trip	When the booking wants to confirm a booked trip	SLOT <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time DRIVER <ul style="list-style-type: none"> - Driver_ID - Driver_Name 	Selected by booking consultant

4.4 Outsource driver	4.4a	Outsource driver output	To trigger the outsource a driver process	When there are no internal drivers available and the booking consultant wants to assign a driver to a trip	<u>SLOT</u> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time <u>OutsourceDriver</u> <ul style="list-style-type: none"> - OutsourceDriver_ID - OutsourceDriver_Name 	Selected by the booking consultant
5.1 Add vehicle	5.1 a	Add vehicle prompt	To begin the process that adds another vehicle to the system	When there is a new vehicle to be added to the system	<u>VEHICLE</u> <ul style="list-style-type: none"> - Vehicle_ID - Vehicle_Model - Vehicle_Colour_Description <u>VEHICLE_MAKE</u> <ul style="list-style-type: none"> - Vehicle_Make_Name, - Vehicle_Make_Description - VehicleMake_ID <u>VEHICLE MAINTENANCE</u> <ul style="list-style-type: none"> - VehicleMaintenance_ID - ServiceProvider - Vehicle_ID 	Requested by the booking consultant
5.2 Search vehicle	5.2a	Search vehicle prompt	Triggers the system to begin the process that searches a vehicle	When the booking consultant wants to search for a vehicle	<u>VEHICLE</u> <ul style="list-style-type: none"> - Vehicle_ID - Vehicle_Model - VehicleMake_ID - VehicleMaintenance_ID - VehicleColour_ID - VehicleLicencePlates 	Requested by the booking consultant
5.3 Confirm trip	5.3a	Confirm trip prompt	This starts the system process which confirms a booking	When the booking consultant wants to send confirmation messages of trip to	<u>SLOT</u> <ul style="list-style-type: none"> - BookingReference_ID - DeparturePoint - DestinationPoint - Slot_Time <u>PASSENGER</u> <ul style="list-style-type: none"> - Passenger_ID - Passenger_Name 	Requested by the booking consultant

				the driver and the passenger	<ul style="list-style-type: none"> - Passenger_Contact <p><u>DRIVER</u></p> <ul style="list-style-type: none"> - Driver_ID - Driver_Name - Driver_Contact 	
5.4 Check vehicle availability	5.4a	Check driver availability prompt	This triggers the process that checks the drivers that are available	When a list of available vehicles	<p><u>BOOKING</u></p> <ul style="list-style-type: none"> - BookingReference_ID - Passenger_ID - Driver_ID - DeparturePoint - DestinationPoint - Time <p><u>VEHICLE GROUP</u></p> <ul style="list-style-type: none"> - Number_of_Passengers <p><u>SLOT</u></p> <ul style="list-style-type: none"> - Slot_Date - Slot_Time 	Selected by the booking consultant
5.5 Assign vehicle to trip	5.5a	Assign vehicle prompt	This begins the process that assigns a vehicle to a trip	When the booking consultant wants to confirm a booking and needs to assign a vehicle to a trip	<p><u>SLOT</u></p> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time 	Requested by the booking consultant
	5.5b	Select vehicle information	This triggers the process the captures the details of a chosen vehicle	When the booking consultant selects a vehicle they want to assign to a trip	<p><u>SLOT</u></p> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time 	Requested by the booking consultant
5.6 Outsource vehicle	5.6a	Outsource vehicle prompt	Triggers the process that assigns an	When the booking consultant wants to	<p><u>SLOT</u></p> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time 	Requested by the booking

			outsour ced driver to a trip	confirm a booking and assigns an outsour ced driver	<u>OUTSOURCE VEHICLE</u> - OutsourceVehicle_ ID - OutSource_Vehicl e_Model - OutSource_Make	consult ant
6.1 Create vehicl e group activit y	6.1a	Add new vehicle group prompt	This begins the proces s of adding a new vehicle group in the system	When the booking consult ant wants to add a new vehicle group into the system	<u>VEHICLE GROUP</u> - Vehicle group ID, - VehicleGroup_Na me - VehicleGroup_Des cription	Reques ted by the bookin g consult ant
	6.1b	New vehicle group inform ation	This begins the proces s that capture s the new vehicle group inform ation	When a new vehicle group is to be added by the booking consult ant	<u>VEHICLE GROUP</u> - Vehicle group ID, - VehicleGroup_Na me - VehicleGroup_Des cription	Reques ted by the bookin g consult ant
6.2 Searc h vehicl e group	6.2a	Search vehicle group prompt	This triggers the proces s that search es for a group activity	When the booking consult ant wants to search for a vehicle group	<u>VEHICLE GROUP</u> - Vehicle group ID, - VehicleGroup_Na me - VehicleGroup_Des cription	Reques ted by the bookin g consult ant

Use case	Descriptio n	Purpose	When will it be used	Entities and Attributes	Logical Layout
7.1 Add Client	Request to add new client	Contains the details used to initiate the Add	When the booking consultan t adds the new Client to		Provided by the client

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
		Client process	the system		
	New Client Details	Contains new client details	When the Booking consultant captures the details of the new client	Entity: Client Attributes Client_Name Client_Email Client_Tel Client_Reference Client_Address Client_Type	Provided by the client
7.2 Search Client	Request to Search a client	Contains details used to initiate client search	When the Booking consultant wants to search a client	None	Selected by the Booking consultant
	Client Name	To retrieve a client being searched	The booking consultant enters the name of the client	Entity: Client Client_Name Client_Email Client_Tel Client_Reference Client_Address Client_Type	Provided by the Booking consultant
	Select Specific client	The option select the specific client they want	When the booking consultant wants to select the specific client and view details of the client		Selected by the Booking consultant
7.3 Update Client	Request to update client details	Contains all the details needed to initiate the update client details	When the Booking consultant wants to update the client details		Provided by the client
	The Updated Client details	Contains all the updated client details	When the Booking consultant enters the Updated client details		Selected by the booking consultant

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
	Confirm Updated Details	The Booking consultant selects confirm the changes made	When the Booking Consultant wants to confirm the changes made	Entity: Client Client_Name Client_Email Client_Tel Client_Reference Client_Address Client_Type	Selected by the booking consultant
8.1 Add ClientType	Request to add new clientType	Contains the details used to initiate the Add ClientType process	When the Operation Manager adds the new ClientType to the system		Operation Manager Provides the details
	New ClientType Details	Contains new clientType details	When the Operations Manager captures the details of the new clientType	Entity:Client_Type Attributes Client_Type_Name Client_Type_Description	Operations Manager Provides the details
8.2 Search ClientType	Request to Search a clientType	Contains details used to initiate clientType search	When the Booking consultant wants to search a clientType	None	Provided by the Booking consultant
	ClientType Name	To retrieve clientType being searched	The booking consultant enters the name of the clientType	Entity:Client_Type Attributes Client_Type_Name Client_Type_Description	Provided by the Booking consultant
	Select Specific clientType	The option selects the specific clientType they want	When the booking consultant wants to select the specific clientType and		Selected by the Booking consultant

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
			view details of the clientType		

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
8.3 Update ClientType	Request to update clientType details	Contains all the details needed to initiate the update clientType details	When the Booking consultant wants to update the clientType details		Selected by Booking consultant
	The Updated ClientType details	Contains all the updated clientType details	When the Booking consultant enters the Updated clientType details	Entity:Client_Type Attributes Client_Type_Name Client_Type_Description	Provided by the Booking consultant
	Confirm Updated Details	The Booking consultant selects confirm the changes made	When the Booking Consultant wants to confirm the changes made	Entity:Client_Type Attributes Client_Type_Name Client_Type_Description	Selected by the Booking consultant

Use case	Description Flow Line	Purpose	When will it be used	Entities and Attributes	Logical Layout
9.1 Create Booking	Request to Create a booking	Contains all the details needed to initiate	When the Booking Consultant wants to		Provided by client

Use case	Description Flow Line	Purpose	When will it be used	Entities and Attributes	Logical Layout
		Create Booking Process	create a Booking		
	Client Name/Reference	Contains details of the Client making a booking	When the consultant wants to retrieve details of the client		Provided by client
	[ALT] Add new Client	Contains all the details of the new Client	When the booking consultant wants to create new Client		Selected by the Booking consultant
	The Pickup and dropOff details Details	Contains all the required Pickup and dropOff details	When the Booking consultant wants to generate a quote for booking	Entity:Client_Type Attributes Client_Type_Name Client_Type_Description	Provided by client
	Passenger Details	Contains all the required to create a new Passenger	When the Booking consultant wants to enter details of the Passenger	Entity: Passenger Passenger Name Passenger Surname Passenger PhoneNo	Provided by client
	PickUp Instruction	Contains all the required details needed for instruction	When the manager wants to enter the instructions of PickUp		Provided by client
	Compiled Booking Details	Contains all the details required to create a new Booking	When the manager wants to enter the Booking details	Entity: Booking_Trip Date_of_PickUp Date_of_Arrival Time_Of_PickUp Time_Of_Arrival Booking_Status Pickup_Location_ID DropOff_Location_ID Number_Of_Passengers PickUp_Instruction Entity : Invoice Invoice_Number	System generated a compiled booking details

Use case	Description Flow Line	Purpose	When will it be used	Entities and Attributes	Logical Layout
				Invoice_Date Payment_Status Booking_Reference Booking_Cost	
9.2 Search Booking	Request to Search a Booking	Contains details used to initiate Search Booking	When the Booking consultant wants to search a Booking	None	Selected by Booking Consultant
	Booking Reference	To retrieve Booking being searched	The booking consultant enters the Booking reference	Entity:Booking_Trip Attributes Booking_Reference	Provided by Booking consultant
	Select Specific Booking	The option selects the specific Booking they want	When the booking consultant wants to select the specific Booking and view details		Selected by Booking consultant
9.3 Update Booking	Request to update Booking details	Contains all the details needed to initiate the update Booking details	When the Booking consultant wants to update the Booking details		Provided by the client
	The Updated Booking details	Contains all the updated Booking details	When the Booking consultant enters the Updated Booking details		Provided by the client
	Confirm Updated Details	The Booking consultant selects confirm the changes made	When the Booking Consultant wants to confirm the changes made	Entity: Booking_Trip Date_of_PickUp Date_of_Arrival Time_Of_PickUp Time_Of_Arrival Booking_Status Pickup_Location_ID DropOff_Location_ID Number_Of_Passengers	System confirms the updated details

Use case	Description Flow Line	Purpose	When will it be used	Entities and Attributes	Logical Layout
				PickUp_Instruction Entity : Invoice Invoice_Number Invoice_Date Payment_Status Booking_Reference Booking_Cost	
9.4 Cancel Booking	Request to Cancel a Booking	The Booking consultant selects the option to cancel the Booking	When the Booking consultant wants to cancel a Booking		Provided by the client
	Booking Reference	Contains the details of the Booking that needs to be canceled	When the Booking consultant wants to retrieve the Booking to cancel	Entity: Booking_Trip Attributes: Booking_Reference	Provided by the client
	Cancellation Reasons	Contains the details of cancelling the Booking	When the Booking consultant want to enter the Cancellation reasons		Provided by the client
9.5 Confirm Booking	Request to Confirm a Booking	The Booking consultant selects to confirm a Booking	When the Booking consultant wants to confirm a Booking		Email
	Booking Reference	Contains the details of the Booking that needs to be Updated	When the Booking consultant wants to retrieve the Booking to Updated		Retrieved from email
	Select a Vehicle	Contains details needed to	When the Booking consultant wants to	Entity:Vehicle Attributes Vehicle_ID	Selected by Booking

Use case	Description Flow Line	Purpose	When will it be used	Entities and Attributes	Logical Layout
		select a Vehicle	assign a vehicle to a Booking	Entity: Slot Slot_Date Slot_Time	consultan t
	Select a Driver	Contains details needed to select a Driver	When the Booking consultant wants to assign a Driver to a Booking	Entity:Driver Attributes Driver Entity: Slot Slot_Date Slot_Time	Selected by Booking consultan t

UseCase	Flow Line	Description	Purpo se	When Used	Entities and Attributes	Logical Layout
1 0. 1	Add to Schedu le	Notification of Scheduling	Notifies the manager of any maintena nces or maintena nce appointm ents that are to the schedule.	When the booki ng consul tant wants to add a booki ng to the sched ule	N/A	Notific ation the system
		ALT - Invalid Appointment/Main tenance Details Error Message	Notifies the manager that invalid appointm ent or maintena nce details are inserted when adding to the schedule.	When invalid booking details are inserted when adding to the schedule.	N/A	A messag e that notifies the manag er that invalid Bookin g details were receive d

UseCase	Flow Line	Description	Purpose	When Used	Entities and Attributes	Logical Layout
10.2	Update Schedule	Updatable Schedule Details Edit Fields	Displays the updatable schedule details edit fields.	When a manager updates the schedule.	N/A	Displayed on the system.
		ALT - Schedule Details Validation Error Message	Notifies the manager that there is a validation error with the schedule details.	When invalid details are inserted when maintaining a schedule.	N/A	A message that notifies the consultant that invalid details were inserted when maintaining the schedule.
		ALT - Request Confirmation of Schedule Removal	Prompts the consultant for confirmation on removing a schedule.	When the consultant removes a schedule.	N/A	Prompts displayed on the system.
		Notification of Successful Schedule Details Update or Removal	Notifies the consultant that schedule details were successfully updated or removed.	When schedule details are successfully updated or removed.	N/A	Notification on the system.
10.3	View Schedule	Displayed List of Schedule Search Results	Displays a list of schedules that were	When the booking	Slot table: <ul style="list-style-type: none"> BookingReference Client_ID 	Displayed on the system.

UseCase	Flow Line	Description	Purpose	When Used	Entities and Attributes	Logical Layout
			searched for by the consultant.	consultant wants to search for a booking on the schedule	<ul style="list-style-type: none"> • Driver_ID • Date • Time • ContactPerson_ID • DestinationLocation • TripDuration 	
		Displayed Specific Search Result Details	Displays specific search result details that the consultant searched for.	When the consultant wants to view the details of a specific Booking in the schedule	Slot table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • ContactPerson_ID • DestinationLocation • TripDuration 	Displayed on the system.
		ALT - Invalid Schedule Search Criteria Error Message	Notifies the consultant that invalid search criteria were entered when viewing the schedule.	When the consultant enters invalid data when viewing a schedule.	N/A	A message that notifies the consultant that invalid details were inserted viewing the schedule.
1 1.1	Booking Report					
1 1.2	Driver-Trip Report					
1 1.3	Mileage Report					

UseCase	Flow Line	Description	Purpose	When Used	Entities and Attributes	Logical Layout
1 2. 1	Schedule Vehicle Maintenance Schedule	Notification of Scheduling	Notifies the manager of any maintenances that are to the schedule.	When a maintenance is added to the schedule.	None	Notification on the system.
		ALT – Invalid Maintenance Details Error Message	Notifies the manager that invalid maintenance details are inserted when adding to the schedule.	When invalid maintenance details are inserted when adding to the schedule.	None	A message that notifies the manager that invalid maintenance details were received.
1 2. 2	Update Vehicle Maintenance Schedule	Updatable Schedule Details Edit Fields	Displays the updatable schedule details edit fields.	When an operational manager maintains the schedule.	None	Displayed on the system.
		ALT - Schedule Details Validation Error Message	Notifies the operational manager that there is a validation error with the schedule details.	When invalid details are inserted when maintaining a schedule.	None	A message that notifies the operational manager that invalid details were inserted when maintaining the schedule.
		ALT - Request Confirmation of Schedule Removal	Prompts the operational manager for	When the operational manager removes a schedule.	None	Prompts displayed on the system.

UseCase	Flow Line	Description	Purpose	When Used	Entities and Attributes	Logical Layout
			confirmation on removing a schedule.			
		Notification of Successful Schedule Details Update or Removal	Notifies the operational manager that schedule details were successfully updated or removed.	When schedule details are successfully updated or removed.	None	Notification on the system.
1 2. 3	View Vehicle Maintenance Schedule	Displayed List of Schedule Search Results	Displays a list of schedules that were searched for by the operational manager.	When the operational manager searches for schedules.		Displayed on the system.
		Displayed Specific Search Result Details	Displays specific search result details that the operational manager searched for.	When the operational manager searches for a specific schedule.		Displayed on the system.
		ALT - Invalid Schedule Search Criteria Error Message	Notifies the operational manager that invalid search	When the operational manager enters invalid data when	N/A	A message that notifies the operational manager that invalid details were

UseCase	Flow Line	Description	Purpose	When Used	Entities and Attributes	Logical Layout
			criteria were entered when viewing the schedule.	viewing a schedule.		inserted viewing the schedule.

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
13.1 Add Location	13.1.1	Request Add Location Details	Triggering input to start the adding Location process.	When a new Location is to be added on the system.	Booking Consultant (Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Requested by Booking Consultant .
	13.1.2	Location Details	Details of new Location to be used to add new Location .	When a new Location is to be added on the system.	<ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb 	Entered by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
					<p>[Suburb_name]</p> <ul style="list-style-type: none"> Street <p>[Street_name]</p> <ul style="list-style-type: none"> LocationType <p>[Locationtype]</p>	
	13.1.3	Save Location Details	The Booking Consultant indicates selection to save details for new Location .	When a new Location is to be added on the system.	<p>Booking Consultant (Location)</p> <ul style="list-style-type: none"> Location name <p>[Location_name]</p> <ul style="list-style-type: none"> Province name <p>[Province_name]</p> <ul style="list-style-type: none"> City <p>[City_Name]</p> <ul style="list-style-type: none"> Suburb <p>[Suburb_name]</p> <ul style="list-style-type: none"> Street <p>[Street_name]</p> <ul style="list-style-type: none"> LocationType <p>[Locationtype]</p>	Selected by Booking Consultant .
	13.1.4	Confirm Location Details	The Booking Consultant indicates confirmation of adding new Location .	When the system prompts the Booking Consultant to confirm new Location details.	Booking Consultant (Location)	Selected by Booking Consultant .
	13.1 [ALT]	Revoked Confirmation Details	The Booking Consultant revokes confirmation of adding new Location .	When the system prompts the Booking Consultant to confirm new Location	Booking Consultant (Location)	Selected by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
				details.		
13.2 Search Location	13.2.1	Request Search Location Details.	Triggering input to start the Location Viewing process.	When a specific Location is to be viewed on the system.	Booking Consultant (Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Requested by Booking Consultant .
	13.2.2	Request to Search Specific Location Details.	The Booking Consultant selects the Location to be viewed on the system.	When a specific Location is to be viewed on the system.	Booking Consultant (Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name]	Selected by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
					<ul style="list-style-type: none"> LocationType [Locationtype]	
13.13 Update Location	13.3.1	Request Update Location Details.	Triggering input to start the updating Location process.	When the Location details need to change on the system.	Booking Consultant (Location)	Requested by Booking Consultant .
	13.3.2	Update Location Details.	The Booking Consultant selects which Location to update details	When the Location details need to change on the system.	Booking Consultant (Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Selected by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
	13.3.3	Updated Location Details.	Details of Location to be used for updating details of Location .	When the Location details need to change on the system.	<ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Entered by Booking Consultant .
	13.3.4	Save Updated Location Details.	The Booking Consultant indicates selection to save details to be updated on the system.	When the Location details need to change on the system.	Booking Consultant(Location). <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Selected by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
14.1 Add Zone	14.1.1	Request Add Zone Details	Triggering input to start the adding Zone process.	When a new Zone is to be added on the system.	Booking Consultant (Zone) <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Requested by Booking Consultant .
	14.1.2	Enter Zone Details	Details of new Zone to be used to add new Zone .	When a new Zone is to be added on the system.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Entered by Booking Consultant .
	14.1.3	Save Zone Details	The Booking Consultant indicates selection to save details for new Zone .	When a new Zone is to be added on the system.	Booking Consultant (Zone) <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Selected by Booking Consultant .
	14.1.4	Confirm Zone Details	The Booking Consultant indicates confirmation of adding new Zone .	When the system prompts the Booking Consultant to confirm new Zone details.	Booking Consultant (Zone)	Selected by Booking Consultant .
	14.1 [ALT]	Revoked Confirmation Details	The Booking Consultant revokes confirmation of adding new Zone .	When the system prompts the Booking Consultant to confirm new Zone details.	Booking Consultant (Zone)	Selected by Booking Consultant .
14.2 Search Zone	14.2.1	Request Search Zone Details.	Triggering input to start the Zone Viewing process.	When a specific Zone is to be viewed on the system.	Booking Consultant (Zone) <ul style="list-style-type: none"> Zone Type [Zone type] 	Requested by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
	14.2.2	Request to Search Specific Zone Details.	The Booking Consultant selects the Zone to be viewed on the system.	When a specific Zone is to be viewed on the system.	Booking Consultant (Zone) <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Selected by Booking Consultant .
13.3 Update Zone	14.3.1	Request Update Zone Details.	Triggering input to start the updating Zone process.	When the Zone details need to change on the system.	Booking Consultant (Zone)	Requested by Booking Consultant .
	14.3.2	Update Zone Details.	The Booking Consultant selects which Zone to update details	When the Zone details need to change on the system.	Booking Consultant (Zone) <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Selected by Booking Consultant .
	14.3.3	Updated Zone Details.	Details of Zone to be used for updating details of Zone .	When the Zone details need to change on the system.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Entered by Booking Consultant .
	14.3.4	Save Updated Zone Details.	The Booking Consultant indicates selection to save details to be updated on the system.	When the Zone details need to change on the system.	Booking Consultant (Zone). <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Selected by Booking Consultant .

UseCase Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
	14.3.5	Confirm Zone Details.	The Booking Consultant indicates confirmation of updating Zone .	When the system prompts the Booking Consultant to confirm updated details.	Zone Booking Consultant	Selected by Zone Booking Consultant .
	14.3 [ALT]	Revoke Confirmation Details.	The Booking Consultant revokes confirmation of updating Zone .	When the system prompts the Booking Consultant to confirm updated details.	Zone Booking Consultant	Selected by Zone Booking Consultant .
13.4 Remove Zone	14.4.1	Request Removal of Zone Details	Triggering input to start the Zone Removal process.	When a needs to be removed from the system.	Zone Booking Consultant	Requested by Zone Booking Consultant .
	14.4.2	Request Removal of Selected Zone .	The Booking Consultant selects which Zone to be removed from the system.	When a Zone needs to be removed from the system.	Zone Booking Consultant <ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Selected by Zone Booking Consultant .
	14.4.3	Confirmation to Remove Zone Details.	The Booking Consultant indicates confirmation of removal of Zone .	When the system prompts the Booking Consultant to confirm removal of Zone .	Zone Booking Consultant	Selected by Zone Booking Consultant .
	14.4 [ALT]	Revoke Confirmation of Removal Details.	The Booking Consultant revokes confirmation of removal of Zone .	When the system prompts the Booking Consultant to confirm removal of Zone .	Zone Booking Consultant	Selected by Zone Booking Consultant .

Use Case Number	Flow Line	Description	Purpose	When it will be Used	Entities and Attributes	Logical Layout
15.1.1Generate Invoice	15.1.1	Request to Generate Invoice .	Triggering input to start the Invoice ing process.	When the Booking Consultant wants the Invoice to be generate d.	-	Requested by Booking Consultant.
	15.1.2	Selected Booking .	Booking Consulta nt selects the Booking for the Invoice to be based on.	When the Booking for the Invoice needs to chosen.	Booking <ul style="list-style-type: none"> Booking Name 	Selected by booking consulta nt
	15.1.3	Select to Generate Invoice.	Booking Consultant selects the option to generate the Invoice.	When the Booking Consultant wants the Invoice to be generated.	-Invoice <ul style="list-style-type: none"> Invoice _ID Booking_Refferen ce Invoice _PaymentStatus Invoice_date Invoice_Quote 	Selected by Booking Consultan t.

CONCLUSION

This section outlined in detail the system interfaces and input data depicted in the context diagram. The section went into detail discussing the data used in processes, description of data, purpose of input data, when the data will be used, the entities and attributes associated with entered data as well as the logical layout.

7. REPORTS AND OTHER OUTPUTS

INTRODUCTION

The following section construes each and every single output generated by our system. A table is created describe the purpose of every output, when will outputs will be used, entities and attributes involved and the logical layout of the output. Outputs to external applications are also included in this section.

OUTPUTS

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
1.1.3	Requests access level details	To trigger the process of adding an access level	Adding a new access level to the system		Selected by the employee
1.1.2 [Alt]	Notification failed message	To give notification message to the employee	Adding a new access level to the system		Selected by the employee
1.1.5 [Alt]	Notification failed verification message	To give notification message to the employee	Adding a new access level to the system		Selected by the employee
1.1.7	Notification success message	To give notification message to the employee	Adding a new access level to the system	AccessLevel_ID	Selected by the employee
1.2.3	Display access levels	To all the employee to select an access level	When an edit is required to an existing access level	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Selected by the employee
1.2.8 [Alt]	Notification failed verification message	To give notification message to the employee	When an edit is required to an existing access level		Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
1.2.10	Notification success message	To give notification message to the employee	When an edit is required to an existing access level	AccessLevel_ID"	Selected by the employee
1.2.8 [Alt]	Notification failed verification message	To give notification message to the employee	When an edit is required to an existing access level		Selected by the employee
1.3.3	Request search details	To Know which details are to be searched for	When certain details are needed about an access level	"AccessLevel_Name" AccessLevel Entity	Selected by the employee
1.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an access level	AccessLevel_ID" "AccessLevel_Name" "AccessLevel_Description" AccessLevel Entity	Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
2.1.4	Request employee details	To keep details about the new employee	Adding a new employee to the system	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Selected by the employee
2.1.8	Display success notification	To notify the employee of the success	Adding a new employee to the system	"EMPID" "EMP_Name" Employee Entity	Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
2.1.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	Adding a new employee to the system		Selected by the employee
2.1.6 [Alt]	Notification of failure to verify message	To notify the employee that the details entered aren't correct	Adding a new employee to the system		Selected by the employee
2.2.5	Display update employee details	To show the employee the details that can be updated	When an edit is required to an existing employee	"EMPID" "EMP_Name" "EMP_Surname" "AuditID" "EMP_TypeID" "EMP_EmailAddress" "EMP_Contact" "EMP_Password" "EMP_IDNum" "TitleID" "GenderID" Employee Entity	Selected by the employee
2.2.10	Display success message of updated employee	To notify the employee of the success	When an edit is required to an existing employee	"EMPID" "EMP_Name" "EMP_Surname" Employee Entity	Selected by the employee
2.2.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	When an edit is required to an existing employee		Selected by the employee
2.2.8 [Alt]	Notification of failure to verify message	To notify the employee that the details entered aren't correct	When an edit is required to an existing employee		Selected by the employee
2.3.3	Request the employee search details	To Know which details are to be searched for	When certain details are needed about an employee	"EMP_Name" "EMP_Surname" "EMP_TypeID" Employee entity	Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
2.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an employee	"EMP_Name" "EMP_Surname" "EMP_TypeID" Employee entity	Selected by the employee
2.3.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	When an edit is required to an existing employee		Selected by the employee
2.3.5 [Alt]	Notification of failure to verify message	To notify the employee that the details entered aren't correct	When an edit is required to an existing employee		Selected by the employee
2.3.7 [Alt]	Notification of failure to find a matching employee	To notify the employee that the details of the search weren't found	When an edit is required to an existing employee		Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
3.1.3	Request employee type details	To keep details about the new employee type	Adding a new employee type to the system	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.1.8	Display success message	To let the employee that the employee type has been added	Adding a new employee type to the system	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.1.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	Adding a new employee type to the system		Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
3.2.5	Request new details to employee type	To update the employee type with the new details entered	When an edit is required to an existing employee type	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.2.10	Display success message	To let the employee that the employee type has been updated	When an edit is required to an existing employee type	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.2.2	Notification message of no authority	To notify the employee that they don't have the authority	When certain details are needed about an employee type		Selected by the employee
3.3.3	Request employee type search details	To Know which details are to be searched for	When certain details are needed about an employee type	"EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.3.7	Display search results	So that the employee can see the details they were searching for	When certain details are needed about an employee type	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.3.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	When certain details are needed about an employee type		Selected by the employee
3.4.4	Request the employee type details	To know which employee type is to be removed	So that the employee type can no longer be used anymore	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee

UseCase	Description	Purpose	When Used	Entities and Attributes	Logical Layout
3.4.6	Request confirmation of removal	To ensure that the correct employee type is disabled	So that the employee type can no longer be used anymore		Selected by the employee
3.4.9	Display success notification message	So that the employee can see the details they are removing	So that the employee type can no longer be used anymore	"EMP_TypeID" "EMP_TypeName" "EMP_TypeDes" Employee type Entity	Selected by the employee
3.4.2 [Alt]	Notification message of no authority	To notify the employee that they don't have the authority	So that the employee type can no longer be used anymore		Selected by the employee
3.4.8 [Alt]	Notification message of failure removal	To notify the employee that removal has failed	So that the employee can know the results		Selected by the employee

Use Case Number	Flow Line	Description	Purpose	When it will be used	Entities and attributes	Logical Layout
4. Driver						
4.1 Search driver	4.1.2[ALT]	Display error message	This is to trigger the process that displays an error message to the booking consultant	When the character information entered is not valid	-	Information being displayed to booking consultant
	4.1.6[ALT]	Alert message	This triggers the process that displays an alert message to the booking consultant	When the system cannot find any characters that match the input	-	An alert is being sent to the booking consultant
	4.1	Display driver details	This is the output which displays the details of a driver	When the search result returns a match	DRIVER - Driver_ID - Driver_Name , - Driver_Surname, - Driver_LicenseNumber, - Driver_LicenseType, - EMPID	The information of a driver is displayed to the booking consultant
4.2 Check driver availability	4.2	List of available drivers	This is the available drivers output that is displayed	When checking driver availability	<u>SLOT</u> - Slot_ID - Slot_Date - Slot_Time	The list of drivers that is displayed to the booking consultant
	4.2.4[ALT]	Display message	This is the error message to error displayed to the booking consultant	When the driver list cannot be retrieved	-	An error message is displayed to the booking consultant
4.3 Assign driver to trip	4.3	Assignment confirmation	This is to display a message of successful assignment	When the system successfully assign a driver to a trip	-	Confirmation of assignment displayed to the booking consultant

	4.3.1 [ALT]	Driver not available message	This displays a message to the booking consultant that a driver is not available	When the system does not return a list of the available drivers	-	A message is displayed to the booking consultant
4.4 Outsource driver	4.4	Outsource driver assignment message	This is to display a message of a successful outsource driver assignment	When the system successfully assigns an outsourced driver to a trip	-	Confirmation of assignment displayed to the booking consultant
5. Vehicle						
5.1 Add vehicle	5.1	Added vehicle confirmation	This is the process that displays an a confirmation of a vehicle addition	When the system has added a new vehicle to the system	-	Alerts booking consultant of successful addition of vehicle
	5.1.3 [ALT]	Display error message	This is to inform the booking consultant of an error in the input	When information provided fails the system verification	-	A message is displayed to the booking consultant
5.2 Search vehicle	5.2	Vehicle details	This is the output resulting from a vehicle being searched	When the system retrieves the information of a vehicle	VEHICLE <ul style="list-style-type: none"> - Vehicle_ID - Vehicle_Model - VehicleMake_ID - VehicleMaintenance_ID - VehicleColour_ID - VehicleLicencePlates 	Vehicle information displayed to the booking consultant
	5.2.3 [ALT]	Error in characters message	To inform the booking consultant of an error in the input	When the characters entered do not fit the system	-	An error message is displayed to the booking consultant

				requirements		
	5.2.5 [ALT]	Match not found message	Display a message to the booking consultant	When the system cannot find a match for entered characters	-	An error message is displayed to the booking consultant
5.3 Confirm trip	5.3a	Confirmation message	This is the process that displays a confirmation message to the booking consultant	When the system has successfully sent trip confirmation details	-	Confirmation message displayed to booking consultant
	5.3b	Passenger trip details	This is the output that is sent to the passenger	When the system retrieves trip information	SLOT <ul style="list-style-type: none"> - BookingReference_ID - DeparturePoint - DestinationPoint - Slot_Time PASSENGER <ul style="list-style-type: none"> - Passenger_ID - Passenger_Name - Passenger_Contact 	Trip details sent to the passenger
	5.3c	Driver Trip Details	This is the output that is sent to the driver	When the system retrieves trip information and accumulates the driver trips of the day	SLOT <ul style="list-style-type: none"> - BookingReference_ID - DeparturePoint - DestinationPoint - Slot_Time DRIVER <ul style="list-style-type: none"> - Driver_ID - Driver_Name - Driver_Contact 	Trip details sent to the driver
5.4 Check vehicle availability	5.4	List of available vehicles information	This is the results from the process that searches for available drivers	When the system retrieves a list of the vehicle that are	BOOKING <ul style="list-style-type: none"> - BookingReference_ID - Passenger_ID - Driver_ID - DeparturePoint 	List of available vehicles is displayed to the booking

				available	<ul style="list-style-type: none"> - DestinationPoint - Time <p>VEHICLE GROUP</p> <ul style="list-style-type: none"> - Number_of Passengers <p>SLOT</p> <ul style="list-style-type: none"> - Slot_Date - Slot_Time 	consultant
	5.4.3 [ALT]	Display no vehicles available message	Inform the booking consultant that there are no cars available	When the system cannot find available vehicles on the system	:	
5.5 Assign vehicle to trip	5.5	Vehicle assignment confirmation	This process displays the information of a vehicle being assigned	When the system has assigned a driver to the trip	<p>SLOT</p> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time 	Confirmation of assignment message displayed to the booking consultant
5.6 Outsource vehicle	5.6	Outsource vehicle assignment confirmation	This is the output of a process that assigns an outsourced vehicle to a trip	When the system successfully add the outsource vehicle information	<p>SLOT</p> <ul style="list-style-type: none"> - Slot_ID - Slot_Date - Slot_Time <p>OUTSOURCE VEHICLE</p> <ul style="list-style-type: none"> - OutsourceVehicle_ID - OutSource_Vehicle_Model - OutSource_Make 	A message of confirmation is displayed to the booking consultant
6. Vehicle group						
6.1 Create vehicle group	6.1	New vehicle confirmation message	This is the result of a vehicle group being added on the system	When the system adds a new vehicle group	<p>VEHICLE GROUP</p> <ul style="list-style-type: none"> - Vehicle group ID, - VehicleGroup_Name - VehicleGroup_Description 	A confirmation message is displayed to the booking consultant

	6.1.3 [ALT]	Display error message	To inform the booking consultant of error in input	When there is an error in input	-	A message is displayed to the booking consultant
6.2 Search vehicle group	6.2	Vehicle group information	This is the process that displays the vehicle group	When a match has been found for the search criteria by the system	VEHICLE GROUP <ul style="list-style-type: none"> - Vehicle group ID, - VehicleGroup_Name - VehicleGroup_Description 	Vehicle group information is displayed to the booking consultant
	6.2.2[ALT]	Error in character input information	This displays a message to the booking consultant that there is an error in the input	When the input does not meet system criteria	=	A message is displayed to the booking consultant
	6.2.5[ALT]	Match not found information	This displays a message to the booking consultant that a match has not been found	When the system cannot find a match to the characters entered	=	A match not found message is displayed to the booking consultant
6.3 Update vehicle group	6.3	Updated details message	This is the process that displays a message confirming update	When the system has updated the vehicle group information	VEHICLE GROUP <ul style="list-style-type: none"> - VehicleGroup_Name - VehicleGroup_Description 	Confirmation message is sent to the booking consultant
	6.3.5[ALT]	Input error message	This displays a message to the booking consultant about an error in the input	When the input does not meet the system requirements	-	A message is displayed to the booking consultant
Use case	Description	Purpose	When will it be used	Entities and Attributes		Output

7.1 Add Client	[ALT] Check if the client details are in the correct format	Inform the Booking consultant that data is incorrect format	When the system validates if the input is in the correct format		Message to notify that incorrect input was received in the input fields
	Confirmation of Successfully adding a new client	Inform the Booking consultant that Client is successfully added	Adding a new client to the Client table	Client table Client_Name Client_Email Client_Tel Client_Reference Client_Address Client_Type	Notification on the system
7.2 Search Client	list of all available clients in the Client table	Booking consultant could select the specific client	When searching for a client	Entity : Client Attributes: Client_Name Client_Reference Client_PhoneNumber Client_Email	
	selected Client	To view the details of the client that is being searched for	When the specific client is found	Entity : Client Attributes: Client_Name Client_Reference Client_PhoneNumber Client_Email Client_Address Client_type	

	[ALT] Invalid format details	Booking consultant being informed of incorrect input format	When client's reference is in an incorrect format		Message to notify that incorrect input was received in the input fields
	[ALT] Client not found	Booking consultant being notified that the Client could not be retrieved in the Client table	When the system finds no match for the searched client		Message that the client could not be retrieved
7.3 Update Client	[ALT] Client to update not found	When the client the Booking consultant wants to update is not found	When the Booking consultant searches for the client to update		Message that the client could not be found
	[ALT] Incorrect input format	When the Booking consultant is informed of the incorrect input	When the input is not in a correct format		Message to notify that there is incorrect input
	Updated Client Details	When the Booking consultant is notified of the updating of Client details	Client details has been updated		Notification on the system

8.1 Add Client Type	Con firm atio n of suc ces sfull y addi ng a new Clie nt Typ e	When the booking consulta nt is notified that the Client type is added	Client type is added to the system	Entity :Client_Type Attributes ClientType_Name ClientType_Description	Notific ation on the system
	Dup licat e Clie nt type s	When the booking consulta nt is notified that the client type exists	Adding a similar client type	Entity:Client_Type Attributes ClientType_Name ClientType_Description	Messa ge to notify that the clientT ype alread y exists
	Inva lid inpu t for mat	When the booking consulta nt is notified of in correc t input	When the input is not in a correct format		Messa ge to notify that there is in correc t input
8.2 Searc h Client Type	Clie nt type retri eve d fro m clie nt tabl e	When the Booking consulta nt is notified with the client type details	When the client type details are retriev ed from the Client table	Entity : Client_Type Attributes ClientType_Name ClientType_Description	Displa yed on the screen
	Clie nt type not retri eve d	When the Booking consulta nt is notified that the Client type not retriev ed	The client type name does not match any Client type		Messa ge to notify that the client type could not be retriev ed

	Invalid Input format	When the booking consultant is notified of incorrect input	When the input is not in a correct format		Message to notify that there is incorrect input
8.3 Update Client Type	[ALT] Client Type to update not found	When the client Type the Booking consultant wants to update is not found	When the Booking consultant searches for the client Type to update		Message to notify that the client type to update could not be found
	[ALT] Incorrect input format	When the Booking consultant is informed of the incorrect input	When the input is not in a correct format		Message to notify that there is incorrect input
	Updated Client Type Details	When the Booking consultant is notified of the updating of Client Type details	Client Type details has been updated	Entity : Client_Type Attributes ClientType_Name ClientType_Description	Notification on the system

Use case	Description	Purpose	When will it be used	Entities and Attributes	Output
7.1 Add Client	[ALT] Check if the client details are in the correct format	Inform the Booking consultant that data is incorrect format	When the system validates if the input is in the correct format		Message to notify that incorrect input was received in the input fields

Use case	Description	Purpose	When will it be used	Entities and Attributes	Output
	Confirmation of Successfully adding a new client	Inform the Booking consultant that Client is successfully added	Adding a new client to the Client table	Client table Client_Name Client_Email Client_Tel Client_Reference Client_Address Client_Type	Notification on the system
7.2 Search Client	list of all available clients in the Client table	Booking consultant could select the specific client	When searching for a client	Entity : Client Attributes: Client_Name Client_Reference Client_PhoneNumber Client_Email	
	selected Client	To view the details of the client that is being searched for	When the specific client is found	Entity : Client Attributes: Client_Name Client_Reference Client_PhoneNumber Client_Email Client_Address Client_type	
	[ALT] Invalid format details	Booking consultant being informed of incorrect input format	When client's reference is in an incorrect format		Message to notify that incorrect input was received in the input fields
	[ALT] Client not found	Booking consultant being notified that the Client could not be retrieved in the Client table	When the system finds no match for the searched client		Message that the client could not be retrieved
7.3 Update Client	[ALT] Client to update not found	When the client the Booking consultant wants to update is not found	When the Booking consultant searches for the client to update		Message that the client could not be found
	[ALT] Incorrect input format	When the Booking consultant is informed	When the input is not in a		Message to notify that there is

Use case	Description	Purpose	When will it be used	Entities and Attributes	Output
		of the incorrect input	correct format		incorrect input
	Updated Client Details	When the Booking consultant is notified of the updating of Client details	Client details has been updated		Notification on the system
8.1 Add Client Type	Confirmation of successfully adding a new Client Type	When the booking consultant is notified that the Client type is added	Client type is added to the system	Entity :Client_Type Attributes ClientType_Name ClientType_Description	Notification on the system
	Duplicate Client types	When the booking consultant is notified that the client type exists	Adding a similar client type	Entity:Client_Type Attributes ClientType_Name ClientType_Description	Message to notify that the clientType already exists
	Invalid input format	When the booking consultant is notified of incorrect input	When the input is not in a correct format		Message to notify that there is incorrect input
8.2 Search ClientType	Client type retrieved from client table	When the Booking consultant is notified with the client type details	When the client type details are retrieved from the Client table	Entity : Client_Type Attributes ClientType_Name ClientType_Description	Displayed on the screen
	Client type not retrieved	When the Booking consultant is notified that the Client type not retrieved	The client type name does not match any Client type		Message to notify that the client type could not be retrieved
	Invalid Input format	When the booking consultant is notified	When the input is not in a correct format		Message to notify that there is incorrect input

Use case	Description	Purpose	When will it be used	Entities and Attributes	Output
		of incorrect input			
8.3 Update ClientType	[ALT] ClientType to update not found	When the clientType the Booking consultant wants to update is not found	When the Booking consultant searches for the clientType to update		Message to notify that the client type to update could not be found
	[ALT] Incorrect input format	When the Booking consultant is informed of the incorrect input	When the input is not in a correct format		Message to notify that there is incorrect input
	Updated ClientType Details	When the Booking consultant is notified of the updating of ClientType details	ClientType details has been updated	Entity : Client_Type Attributes ClientType_Name ClientType_Description	Notification on the system

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
9.1 Create Booking	Generated Booking Reference	Notify the Booking consultant of the generated Booking reference	When a booking is made successfully	Entity: Booking_Trip Attributes Booking_Reference	Notification on the system
	[ALT] Incorrect input format	When the Booking consultant is informed of the incorrect input	When the input is not in a correct format		Message to notify the Booking consultant that incorrect input
	[ALT] Duplicate Booking	When the Booking consultant is notified that the booking already exists	Adding a Booking with the same details		Message to notify the Booking consultant that the Booking already exists

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
	Generated Trip Quote	When the Booking consultant wants to retrieve the estimated cost of the Trip	When retrieving the total Cost of the trip		Message to Notify of the Cost of the Trip
9.3 Update Booking	[ALT] Booking to update not found	When the Booking to be updated is not found	When the Booking consultant searches for the Booking to update	Booking_Trip	Message to notify that the booking doesn't exist
	[ALT] Incorrect input format	When the Booking consultant is informed of the incorrect input	When the input is not in a correct format		Message to notify the Booking consultant that incorrect input
	Updated Booking Details	When the Booking consultant is notified of the updating of Booking details	Booking details has been updated		Message to notify that the booking is successful
9.2 Search Booking	list of all available Bookings in the Booking_Trip table	Booking consultant could select the specific Booking	When searching for a Booking	Booking_Trip	System displays a list of the Available Bookings
	selected Booking	To view the details of the Booking that is being searched for	When the specific Booking is found	Booking_Trip Passenger Invoice	Displayed on the screen
	[ALT] Invalid format details	Booking consultant being informed of incorrect input format	When client's reference is in an incorrect format		Message to notify the Booking consultant that there is incorrect input
	Booking Not Found	When the booking	Booking reference		Message to notify that

Use case	Description	Purpose	When will it be used	Entities and Attributes	Logical Layout
		searched for is not found	does not match any Booking		the booking is not found
9.4 Cancel Booking	[ALT] Booking not found	When the booking searched for is not retrieved	The Booking reference does not match any Booking in the Booking_Trip	Entity: Booking_Trip Attributes Booking_Reference	Message to notify that the booking is not found
	Charge on the Payment status	When the trip is already due for dispatch	The Booking consultant canceling trip		Message that 50% will be charged due to trip already due for dispatch
	Successful Cancellation of Booking	When the Booking cancellation succeeded	When the Booking is removed from the Booking table		Notification on the system
9.5 Confirm Booking	[ALT] The booking could not be retrieved	When searching for the booking to confirm	The booking reference does not match any booking in the Booking_Trip		Notification on the system
	Available Vehicles	Inform the Booking consultant of the available vehicles	When checking which vehicle is available for a trip		Notification on the system
	Available Drivers	Inform the Booking consultant of the available Drivers	When checking which Driver is available for a trip		Notification on the system
	Booking Successfully Confirmed	To inform the booking consultant that the Booking is successfully confirmed	When the Booking consultant finalizes a trip		Notification on the system

Use Case Number	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
13.1 Add Location	13.1 [ALT]	Failed Validation of Location Details.	To inform the Booking Consultant that details for Location has been entered incorrectly.	When the Booking Consultant entered details for Location in the wrong format.	(Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> LocationType [Locationtype]	Error message displayed to Booking Consultant .
	13.1 [ALT]	Duplicate Location Detected Details.	To inform the Booking Consultant that duplicate Location has been detected on the system.	When the Location being added has the details as existing Location on the system.	(Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name] <ul style="list-style-type: none"> Street [Street_name] <ul style="list-style-type: none"> 	Notification displayed to Booking Consultant .
	13.1.5	Notification of Successfully added Location information.	To inform the Booking Consultant of successful addition of Location to system.	When the Booking Consultant has successfully added Location details to the system.	(Location) <ul style="list-style-type: none"> Location name [Location_name] <ul style="list-style-type: none"> Province name [Province_name] <ul style="list-style-type: none"> City [City_Name] <ul style="list-style-type: none"> Suburb [Suburb_name]	Notification displayed to the Booking Consultant .

Use Case Number	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
					<ul style="list-style-type: none"> Street <p>[Street_name]</p>	
13.2 Search Location	13.2.3	Selected Location with Relevant Location Land and Location Land Field information.	To display all the relevant information about a Location with its lands and fields.	When the User has requested to view Locations on the system.	(Location) <ul style="list-style-type: none"> Location name <p>[Location_name]</p> <ul style="list-style-type: none"> Province name <p>[Province_name]</p> <ul style="list-style-type: none"> City <p>[City_Name]</p> <ul style="list-style-type: none"> Suburb <p>[Suburb_name]</p> <ul style="list-style-type: none"> Street <p>[Street_name]</p>	Information displayed on the screen.
13.3 Update Location	13.3 [ALT]	Failed Validation of Location Details.	To inform the Booking Consultant that details have been entered incorrectly .	When the Booking Consultant has entered details in the wrong format.	-	Error message displayed to Booking Consultant .
	13.3.6	Notification of Successful Update information.	To inform the successful update of Location details on the system.	When the Booking Consultant has successfully updated details of Location .	(Location) <ul style="list-style-type: none"> Location name <p>[Location_name]</p> <ul style="list-style-type: none"> Province name <p>[Province_name]</p> <ul style="list-style-type: none"> City <p>[City_Name]</p> <ul style="list-style-type: none"> Suburb <p>[Suburb_name]</p> <ul style="list-style-type: none"> Street <p>[Street_name]</p>	Notification message displayed to Booking Consultant .

Use Case Number	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
14.1 Add Zone	14.1 [ALT]	Failed Validation of Zone Details.	To inform the Booking Consultant that details for Zone has been entered incorrectly.	When the Booking Consultant entered details for Zone in the wrong format.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Error message displayed to Booking Consultant .
	14.1.5	Notification of Successfully added Zone information.	To inform the Booking Consultant of successful addition of Zone to system.	When the Booking Consultant has successfully added Zone details to the system.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Notification displayed to the Booking Consultant .
14.2 Search Zone	14.2.3	Selected Zone with Relevant Zone Range and Zone information.	To display all the relevant information about a Zone with Range	When the User has requested to view Zone s on the system.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] [Suburb_name] 	Information displayed on the screen.
14.3 Update Zone	14.3 [ALT]	Failed Validation of Zone Details.	To inform the Booking Consultant that details have been entered incorrectly.	When the Booking Consultant has entered details in the wrong format.	-	Error message displayed to Booking Consultant .

Use Case	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
14.4 Remove Zone	14.4 [ALT]	There is a Trip linked to Zone .	To inform Booking Consultant that the selected Zone is linked to a Trip	When the system detects Zone is linked to a Trip and cannot proceed to remove.	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Notification message displayed to User.
	14.4.4	Notification of Successfully Removed Zone information.	To inform the Booking Consultant that Zone has successfully been removed.	When the Booking Consultant has selected to remove a specific Zone .	<ul style="list-style-type: none"> Zone Id [Zone_ID] Zone name [Zone_name] Zone range [zone_range] 	Notification message displayed to Booking Consultant .

Use Case Number	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
15.5Generate Invoice .	15.5[ALT]	Booking Has Not Been Selected.	To inform the Booking Consultant that Booking details have not been specified.	When the system tries to generate Invoice but detects that Booking details have not been chosen.	-	Error message displayed to Booking Consultant .
	15.5[ALT]	Unable to Access Database to Retrieve Data	To inform the Booking Consultant that Invoice cannot be generated because data required cannot be retrieved.	When the system tries to retrieve data required for report, it encounters problems.	-	Error Notification displayed to Booking Consultant .

Use Case Number	Flow Line	Description	Purpose	When it will be Produced	Entities and Attributes	Logical Layout
	15.6	Generate d and End Dates Failed Validation Checks	To generate an Invoice	When the Consultant requests to generate a Invoice	Invoice <ul style="list-style-type: none"> • Invoice_ID • Booking_Reference • Invoice_PaymentStatus • Invoice_date • Invoice_Quote 	Invoice (List): List of all completed trips on An invoice with all its associated details.

CONCLUSION

This section assisted us in grasping all the system outputs in more detail. It helped us to understand the outputs purpose, when it gets produced, entities and attributes involved as well as the logical layout all contained in a tabular document.

8. VALIDATION

INTRODUCTION

In this section, the validation of each functional specification, process and entities is provided to check if they correspond to the business requirements.

VALIDATION

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
4. Driver	4.1 Search driver	4.1 Search driver	4.1.1	-
			4.1.2	-
			4.1.3	-
			4.1.4	Driver
	4.2 Check driver availability	4.2 Check driver availability	4.1.5	-
			4.1.6	Driver
			4.1.7	-
			4.2.1	-
	4.3 Assign driver to trip	4.3 Assign driver to trip	4.2.2	Slot
			4.2.3	-
			4.2.4	-
			4.3.1	-
	4.4 Outsource driver	4.4 Outsource driver	4.3.2	-
			4.3.3	-
			4.3.4	Slot
			4.3.5	-
	5.1 Add vehicle	5.1 Add vehicle	4.5.1	Outsourced_Driver
			4.5.2	-
			4.5.3	Slot
			4.5.4	-
5. Vehicle	5.2 Search vehicle	5.2 Search vehicle	5.1.1	-
			5.1.2	-
			5.1.3	-
			5.1.4	Vehicle, VehicleMake, VehicleMaintenance
	5.3 Confirm trip	5.3 Confirm trip	5.1.5	Vehicle, VehicleMake, VehicleMaintenance
			5.1.6	-
			5.2.1	-
			5.2.2	-
	5.4 Search trip	5.4 Search trip	5.2.3	-
			5.2.4	Vehicle
			5.2.5	-
			5.2.6	Vehicle
	5.5 Assign trip to driver	5.5 Assign trip to driver	5.2.7	-
			5.3.1	-
			5.3.2	Slot
			5.3.3	Passenger, Driver
	5.6 Cancel trip	5.6 Cancel trip	5.3.4	-
			5.3.5	-
			5.3.6	-
			5.3.7	-

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
	5.4 Check vehicle availability	5.4 Check vehicle availability	5.4.1 5.4.2 5.4.3 5.4.4	Booking Vehicle_Group, Slot - -
	5.5 Assign vehicle to trip	5.5 Assign vehicle to trip	5.5.1 5.5.2 5.5.3 5.5.4	- - Slot -
	5.6 Outsource vehicle	5.6 Outsource vehicle	5.6.1 5.6.2 5.6.3 5.6.4	Outsource_Vehicle - Slot -
6. Vehicle Group	6.1 Create vehicle group	6.1 Create vehicle group	6.1.1 6.1.2 6.1.3 6.1.4 6.1.5 6.1.6	- - - Vehicle_Group Vehicle_Group -
	6.2 Search vehicle group	6.2 Search vehicle group	6.2.1 6.2.2 6.2.3 6.2.4 6.2.5 6.2.6 6.2.7	- - - Vehicle_Group - - Vehicle_Group
	6.3 Update vehicle group	6.3 Update vehicle group	6.3.1 6.3.2 6.3.3 6.3.4 6.3.5 6.3.6 6.3.7	- - - - - Vehicle_Group -

SubSystem	Requirement	User Case	Process(DFD)	Entities(ERD)
CLIENT	7.1 Add Client	7.1 Add Client	7.1.1 Capture new Client Details	
			7.1.2 Validate the Client Details	
			7.1.3 Validate for duplicates	Client
			7.1.4 Save the new Client	Client
			7.1.5 Generate Confirmation Message	
	7.2 Search Client		7.2.1 Display All Clients	Client
			7.2.2 Capture and validate Client Reference	

			7.2.3 Narrow the Client details	
			7.2.4 Display Selected Client Details	Client
	7.3 Update Client		7.3.1 Retrieve Client to Update	Client
			7.3.2 Capture Client Details to Update	
			7.3.3 Validate Updated Client details	
			7.3.4 Save the update client details	Client
			7.3.5 Generate Confirmation of Updating Client	
CLIENT_TYPE	8.1 Add Client_Type		8.1.1 Capture Client Type Details	
			8.1.2 Validates the Client Type Details	
			8.1.3 Validates Existing Client types	Client_Type
			8.1.4 Save the Client Type	Client_Type
			8.1.5 Generate Confirmation Message	
	8.2 Search Client_Type		8.2.1 Display All Clients_Type	Client_Type
			8.2.2 Capture and validate Client Type name	
			8.2.3 Narrow the Client Type details	
			8.2.4 Display Selected Client Type Details	Client_Type
	8.3 Update Client Type		8.3.1 Retrieve Client Type to Update	Client_Type

			8.3.2 Capture Client type Details to Update	
			8.3.3 Validate New Client type details	
			8.3.4 Save The update Client Type details	Client_Type
			8.3.5 Generate Confirmation of Updating Client Type Details	
9 BOOKING	9.1 Create Booking		9.1.1 Request Client Name and validate the format	
			9.1.2 Validate Client Existence	Client
			9.1.3 Confirm Client Details and save	
			9.1.4 Capture Pickup and DropOff Details	
			9.1.5 Validates Input Format	
			9.1.6 Check for Booking Duplicates	Booking_Trip
			9.1.7 Generate Quote and Booking Reference	
			9.1.8 Capture Passenger Details	
			9.1.9 Validates input Format	
			9.1.10 Checks Duplicate Passenger	Passenger
			9.1.11 Saves Passenger	Passenger
			9.1.12 Capture Pickup Instructions	
			9.1.13 Communicates Booking Details	

			9.1.14 Generate Invoice Number	Invoice
BOOKING			9.1.15 Save Booking Details and save Invoice	Booking_Trip Invoice
			9.1.16 Confirm Booking and Notify about Booking Reference	
	9.2 Search Booking		9.2.1 Display All Bookings	Booking_Trip
			9.2.2 Capture and Validated Booking Reference	
			9.2.3 Narrow the bookings displayed	
			9.2.4 Display Selected Booking Details	Booking_Trip Passenger Invoice
	9.3 Update Booking		9.3.1 Retrieve a Booking to be updated	Booking_Trip Passenger Invoice
			9.3.2 Capture updated Booking details	
			9.3.3 Validate Updated Booking Details	
			9.3.4 Save the Updated Booking Details	Booking_Trip Passenger Invoice
			9.3.5 Generate Confirmation of Updating	
BOOKING	Cancel Booking	9.4 Cancel Booking	9.4.1 Retrieve Booking to cancel	Booking_Reference
			9.4.2 Check if Booking is due for Dispatch	

			9.4.3 Capture Reasons for Cancellation	
			9.4.4 Update Vehicle and Driver Availability	Slot
			9.4.5 Update Schedule	
			9.4.6 Update Payment_Status	Invoice
			9.4.7 Update Booking Status	Booking_Trip
			9.4.8 Generate Confirmation of Booking Cancellation	
Booking	Confirm Booking	9.5 Confirm Booking	9.5.1 Retrieve Booking to be Confirmed	Booking_Trip
			9.5.2 Capture Assigned Vehicle Details	Slot Vehicle_Group
			9.5.3 Capture Assigned Driver Details	Slot Driver
			9.5.4 Assign Driver and Vehicle	Slot
			9.5.5 Create Schedule and Update Booking Status	Booking_Trip

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
10 Schedule	10.1 Create Schedule	Create Schedule	10.1.1 Read Booking details	N/A
			10.1.2 Validate Format of the Booking Details	Schedule Table <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • Destination Time

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
				<ul style="list-style-type: none"> DestinationLocation TripDuration (Which is calculated using Time and Destination Time)
			10.1.3 Retrieve the last Booking Unique Number	N/A
			10.1.4 Store Booking Details	Schedule Table <ul style="list-style-type: none"> BookingReference Client_ID Driver_ID Date Time Destination Time DestinationLocation TripDuration (Which is calculated using Time and Destination Time)
			10.1.5 Notify Booking Consultant with confirmation Message	N/A
			ALT 10.1.2 Display Invalid Error Message	N/A
	10.2 Update schedule	Update schedule	10.2.1 Request to Update Scheduled booking	N/A
			10.2.2 Display Details of the booking to be updated	N/A
			10.2.3 Read Updated Booking Details	N/A
			10.2.4 Validate Format of the updated booking details	N/A
			10.2.5 Store updated Booking details	N/A

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
			10.2.6 Display updated booking details	N/A
			10.2.7 Notify of successful Update	N/A
			ALT 10.2.4 Display Error message for incorrect format	N/A
	10.3 View schedule	View schedule	10.3.1 Request to view schedule	N/A
			10.3.2 Read user entered Search criteria	Schedule table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • DestinationLocation • TripDuration
			10.3.3 Perform schedule search	N/A
			10.3.4 Display list of all bookings from the chosen date	Schedule table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • DestinationLocation • TripDuration
			10.3.5 Display chosen booking details	Schedule table: <ul style="list-style-type: none"> • BookingReference • Client_ID • Driver_ID • Date • Time • DestinationLocation • TripDuration
			10.3.6 Read User Selected Search Result	N/A
			10.3.7 Display User Selected Search Result Details	N/A

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
			ALT 10.3.3 Display Schedule Search Criteria Error Message	N/A
11 Reporting	11.1 Booking Report	Booking Report	11.1.1 Display schedule generation	N/A
			11.1.2 Requests booking search criteria	N/A
			11.1.3 Reads entered report criteria details	Schedule Table: <ul style="list-style-type: none"> Vehicle_ID Client_ID Driver_ID Booking_Date Pickup-Location DropOff-location Date Time
			11.1.4 Generate report of the entered schedule details	Schedule Table: <ul style="list-style-type: none"> Vehicle_ID Client_ID Driver_ID Booking_Date Pickup-Location DropOff-location Date Time
			11.1.5 Display complete report	Schedule Table: <ul style="list-style-type: none"> Vehicle_ID Client_ID Driver_ID Booking_Date Pickup-Location DropOff-location Date Time
			ALT 11.1.4 Displays invalid schedule not found error message	N/A
	11.2 Driver- Trip Report	Driver-Trip Report	11.2.1 Display schedule generation	N/A
			11.2.2 Requests	N/A

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
			booking search criteria	
			11.2.3 Reads entered report criteria details	Schedule Table: <ul style="list-style-type: none"> • Vehicle_ID • Client_ID • Driver_ID • Booking_Date • Pickup-Location • DropOff-location • Date • Time
			11.2.4 Generate report of the entered schedule details	Schedule Table: <ul style="list-style-type: none"> • Vehicle_ID • Client_ID • Driver_ID • Booking_Date • Pickup-Location • DropOff-location • Date • Time
			11.2.5 Display complete report	Schedule Table: <ul style="list-style-type: none"> • Vehicle_ID • Client_ID • Driver_ID • Booking_Date • Pickup-Location • DropOff-location • Date • Time
			ALT 11.2.4 Displays invalid schedule not found error message	N/A
12 Vehicle Maintenance	12.1 Schedule Vehicle Maintenance schedule	Schedule Vehicle Maintenance schedule	12.1.1 Request Maintenance Details	N/A
			12.1.2 Read Maintenance Details	Vehicle Table <ul style="list-style-type: none"> • Vehicle_ID • Vehicle_Description • Vehicle_Name • Vehicle_LicenseNumber • Duration • DateTime
			12.1.3 Validate Format of	N/A

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
			Maintenance Details	
			12.1.4 Retrieve Last Maintenance unique number	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_MaintenanceID
			12.1.5 Store Maintenance Details	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			12.1.6 Notify Operational Manager of scheduling	N/A
	12.2 Update Vehicle Maintenance schedule	Update Vehicle Maintenance schedule	12.2.1 Request to Update schedule	N/A
			12.2.2 Display Details of schedule list that can be Updated	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			12.2.3 Read updated schedule details	N/A
			12.2.4 Validate format of the updated schedule details	N/A
			12.2.5 Store updated schedule details	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			12.2.6 Display updated	Vehicle maintenance table

Subsystem	Requirement	Use Case	Process(DFD)	Entities(ERD)
			schedule details	<ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			12.2.7 Notify manager of successful update	N/A
	12.3View Vehicle Maintenance schedule	View Vehicle Maintenance schedule	12.3.1 Request search Criteria	N/A
			12.3.2 Read User Entered Search Criteria	N/A
			12.3.3 Perform Schedule Search	N/A
			13.3.4 Display List of all Maintenances scheduled that match search results	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			12.3.5 Read User selected search result	N/A
			12.3.6 Display User selected Search result details	Vehicle maintenance table <ul style="list-style-type: none"> Vehicle_ID Vehicle_Description Vehicle_Name Vehicle_LicenseNumber Duration DateTime
			ALT 12.3.4 Display schedule search criteria error message	N/A

13. Location	13.1 Add Location	13.1 Add Location	13.1.1	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.1.2	-
			13.1.3	-
			13.1.4	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.1.5	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.1.6	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.1.7	<ul style="list-style-type: none"> • Audit Type • Audit
			13.1.8	-
	13.2 View Location	13.2 View Location	13.1.9	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.2.1	-
			13.2.2	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
			13.2.3	<ul style="list-style-type: none"> • Location • City • Suburb • Location Type
	13.3 Update Location	13.3 Update Location	13.2.4	<ul style="list-style-type: none"> • Audit Type • Audit
			13.2.5	-
			13.3.1	-
			13.3.2	-
			13.3.3	-
			13.3.4	<ul style="list-style-type: none"> • Location • City • Suburb

				• Location Type
			13.3.5	Audit Type, Audit
			13.3.6	-

14. Zone	14.1 Add Zone	14.1 Add Zone	14.1.1	• Zone
			14.1.2	-
			14.1.3	-
			14.1.4	• Zone
			14.1.5	• Zone
			14.1.6	• Zone
			14.1.7	• Audit Type • Audit
			14.1.8	-
	14.2 View Zone	14.2 View Zone	14.1.9	• Zone
			14.2.1	-
			14.2.2	• Zone
			14.2.3	• Zone
			14.2.4	• Audit Type • Audit
	14.3 Update Zone	14.3 Update Zone	14.2.5	-
			14.3.1	-
			14.3.2	-
			14.3.3	-
			14.3.4	• Zone
			14.3.5	Audit Type, Audit
			14.3.6	-

Subsystem	Requirement	Use Case	Processes (DFD)	Entities (ERD)
	15.1Generate Invoice	15.1Generate Invoice	15.1.1	Booking
			15.1.2	-
			15.1.3	-

Subsystem	Requirement	Use Case	Processes (DFD)	Entities (ERD)
			15.1.4	<ul style="list-style-type: none"> • Invoice_ID • Booking_Refference • Invoice_Payment Stats • Invoice_date • Invoice_Quote
			15.1.5	AuditType, Audit
			15.1.6	-

CONCLUSION

The section above contains the validation of each functional specifications and provided an outline, which showed the team which requirements have been dealt with and which one still needs to be addressed.

9. SIGN-OFF BY CLIENT

INTRODUCTION

The development team has presented the final functional specification document to the client for purposes of reviewing the contents therein. It is ensured that all specifications are understood and agreed to, and in this section the client provides the sign off to conclude the document.

CONCLUSION

By signing this document, the client declares that she has read and understood the contents of the document therein, and gives approval of the functional specification.

10. GENERAL

INTRODUCTION

In this section, we will analyse the complexity requirements and indicate the requirements we will meet and the total marks we will achieve.

CONCLUSION

In this section, we analyzed the complexity requirements and indicated the marks we are currently meeting based on content of the functional specification document and also indicated the total marks we will achieve.

11. SIGN OFF

INTRODUCTION

See

CONCLUSION

See