

System Design

Camp Kabouyak Forest Garden

Camp Ground Reservation System

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Context Diagram

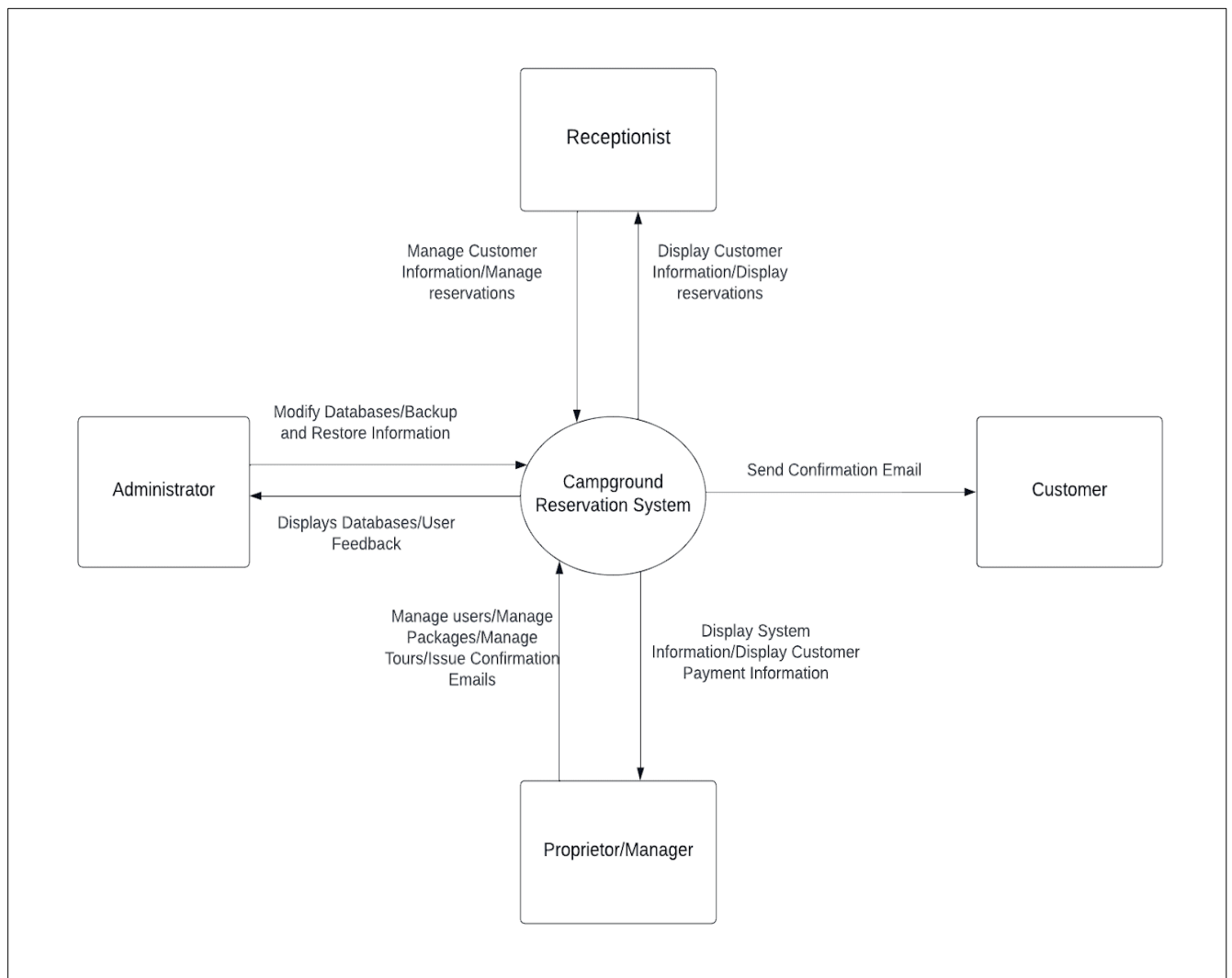


Figure 1: Context Diagram of Camp Kabouyak Reservation System

The interaction between the Campground Reservation System and its external actors—the administrator, receptionist, customer, and owner/manager—is depicted in this context diagram. It illustrates the relationship between each actor and the system. It highlights the actions they can perform as well as the feedback they'll receive from the system.

Use Case Model

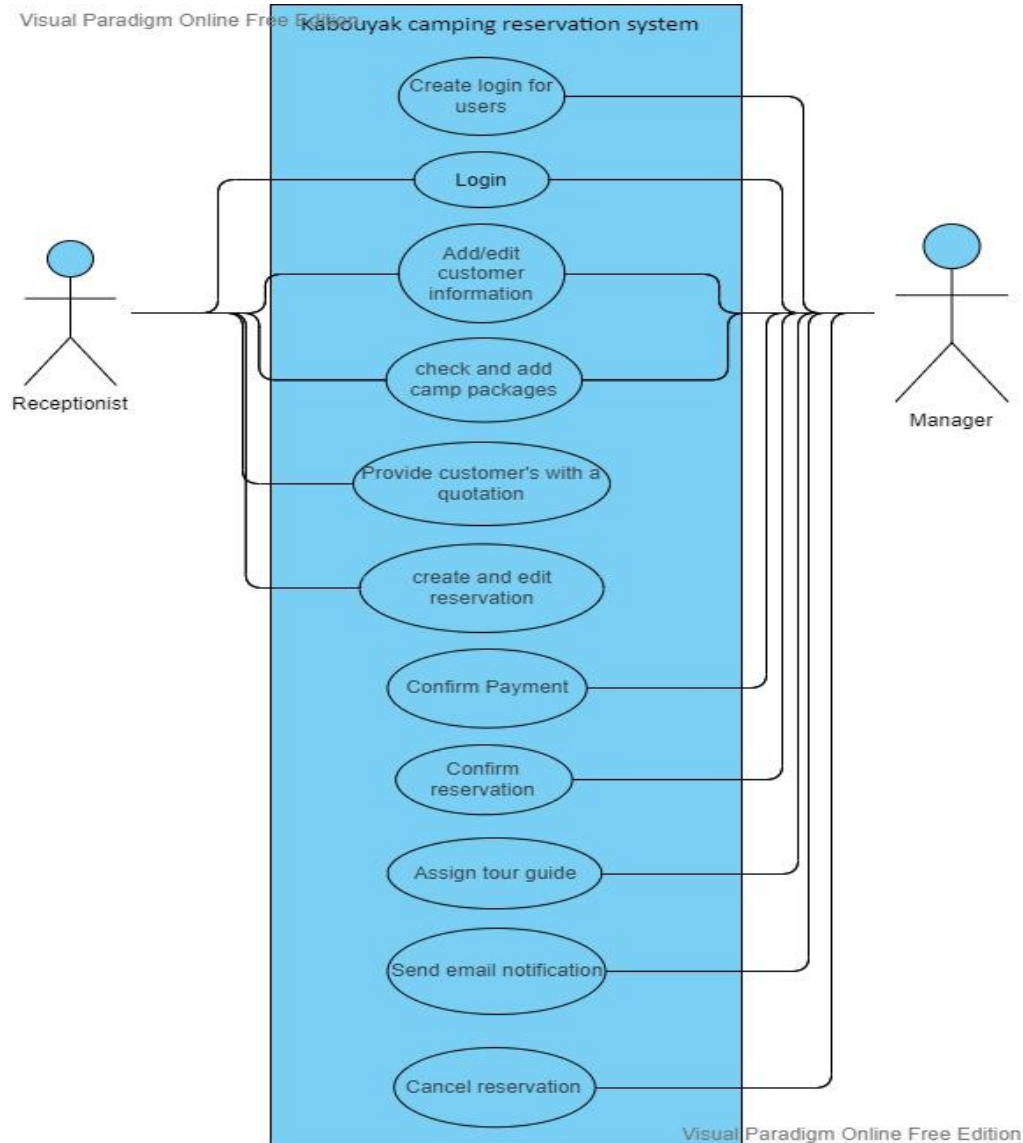


Figure 2: Use Case Model of Camp Kabouyak Reservation System

In the UML Use Case Diagram above, it shows the process of how Kabouyak camping reservation system interacts, also helps to capture the requirements of the system. The diagram shows the interactions of the system and its actors.

Use case descriptions for making a reservation for campground

Use Case Name:	Create Login	
Brief Description	To allow user to access the management database	
Actors	<ul style="list-style-type: none"> • Manager 	
Preconditions	NIL	
Postconditions	<ul style="list-style-type: none"> • Allow user access to login into the system. 	
Flow	Actor	System
	Create a username and password.	

Use Case Name:	System login	
Brief Description	The login would allow user to access the management database system	
Actors	<ul style="list-style-type: none"> • Receptionist • Manager 	
Preconditions	Enable user to login to management database system on the company computer.	
Postconditions	<ul style="list-style-type: none"> • Undefined 	
Flow	Actor	System
	<ul style="list-style-type: none"> • Sign on to system 	<ul style="list-style-type: none"> • Allow users to login into system

Use Case Name:	Enter customer information.	
Brief Description	Enter customer information and updating in management system.	
Actors	<ul style="list-style-type: none"> • Receptionist • Manager 	
Preconditions		
Postconditions	<ul style="list-style-type: none"> • Undefined 	
Flow	Actor	System
	<ul style="list-style-type: none"> • Create profile for customer 	<ul style="list-style-type: none"> • Keep a record of customers information

Use Case Name:	Check and add camp packages	
Brief Description	Check the system for available camp packages and make changes to existing packages.	
Actors	<ul style="list-style-type: none"> • Receptionist • Manager 	
Preconditions		
Postconditions	<ul style="list-style-type: none"> • Undefined 	
Flow	Actor	System
	<ol style="list-style-type: none"> 1. Check the available camp packages 2. Update camp packages 	<ol style="list-style-type: none"> 1. Display camp packages status

Use Case Name:	Provide customers with a quotation	
Brief Description	The system generates quotation.	
Actors	<ul style="list-style-type: none"> • Receptionist 	
Preconditions		
Postconditions	<ul style="list-style-type: none"> • Undefined 	
Flow	Actor	System
	Selected campground package.	Display a quotation

Use Case Name:	Create and edit reservations	
Brief Description	The system enables the receptionist to create or edit campground bookings.	
Actors	<ul style="list-style-type: none"> Receptionist 	
Preconditions	The receptionist opens the management database system on the company computer and login	
Postconditions	<ul style="list-style-type: none"> Undefined 	
Flow	Actor	System
	<ul style="list-style-type: none"> Login to system Enter the customer's information. Create or edit booking. 	<ul style="list-style-type: none"> Creates or update booking

Use Case Name:	Confirm Payment	
Brief Description	Check system for payment confirmation.	
Actors	<ul style="list-style-type: none"> Manager 	
Preconditions		
Postconditions	Payment confirmation	
Flow	Actor	System
	Check system for payment.	Update system of payment

Use Case Name:	Confirm Reservation	
Brief Description	Booking confirmation	
Actors	<ul style="list-style-type: none"> Manager 	
Preconditions	Payment confirmation	
Postconditions	Assign tour guide	
Flow	Actor	System
	Login into the system and confirm booking	Update system of booking

Use Case Name:	Assign tour guide	
Brief Description	Assigning a tour guide for the campground package that was selected.	
Actors	<ul style="list-style-type: none"> Manager 	
Preconditions	<ul style="list-style-type: none"> Confirm Reservation 	
Postconditions	<ul style="list-style-type: none"> Send email notification 	
Flow	Actor	System
	Selected correct tour guide	Update system with tour guide

Use Case Name:	Send email notification	
Brief Description	Send email notification to customers	
Actors	<ul style="list-style-type: none"> Manager 	
Preconditions	Assign tour guide	
Postconditions	<ul style="list-style-type: none"> Undefined 	
Flow	Actor	System
		Generates email confirmation.

Use Case Name:	Cancel Reservation	
Brief Description	To cancel reservation of campground package.	
Actors	<ul style="list-style-type: none"> Manager 	
Preconditions	<ul style="list-style-type: none"> Undefined 	
Postconditions	<ul style="list-style-type: none"> Undefined 	
Flow	Actor	System
		Cancellation of reservation

Sequence Diagram

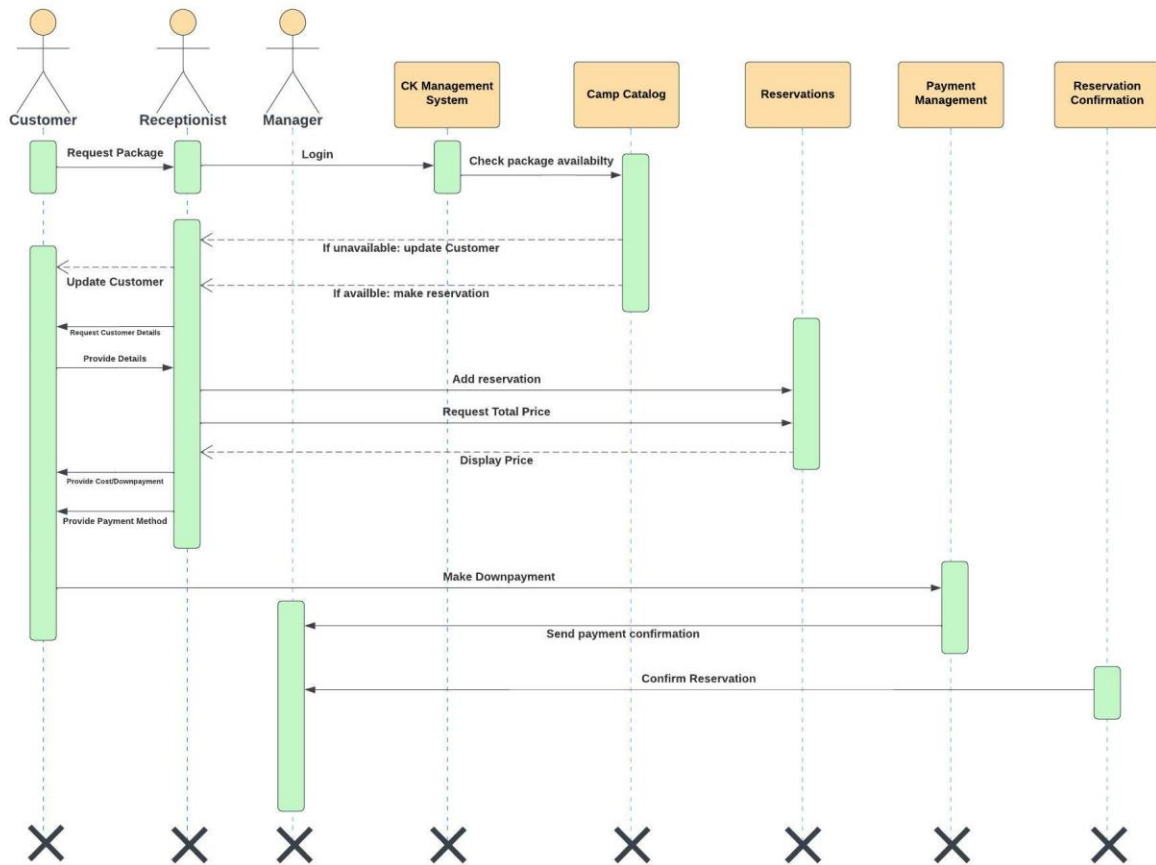


Figure 3: Confirming Reservation Sequence Diagram

A sequence diagram is used to show the object interactions for the use case; Figure 3 shows the interactions for the confirming reservations use case in chronological order. Since the Manager and the Receptionist are both actors in this use case, it was picked as the most complex. It is the only Use Case that will display the system's whole process based on its preconditions. By including the customer as an actor, stakeholders are better able to visualize the sequence of events leading up to the confirmation of a reservation.

Class Diagram

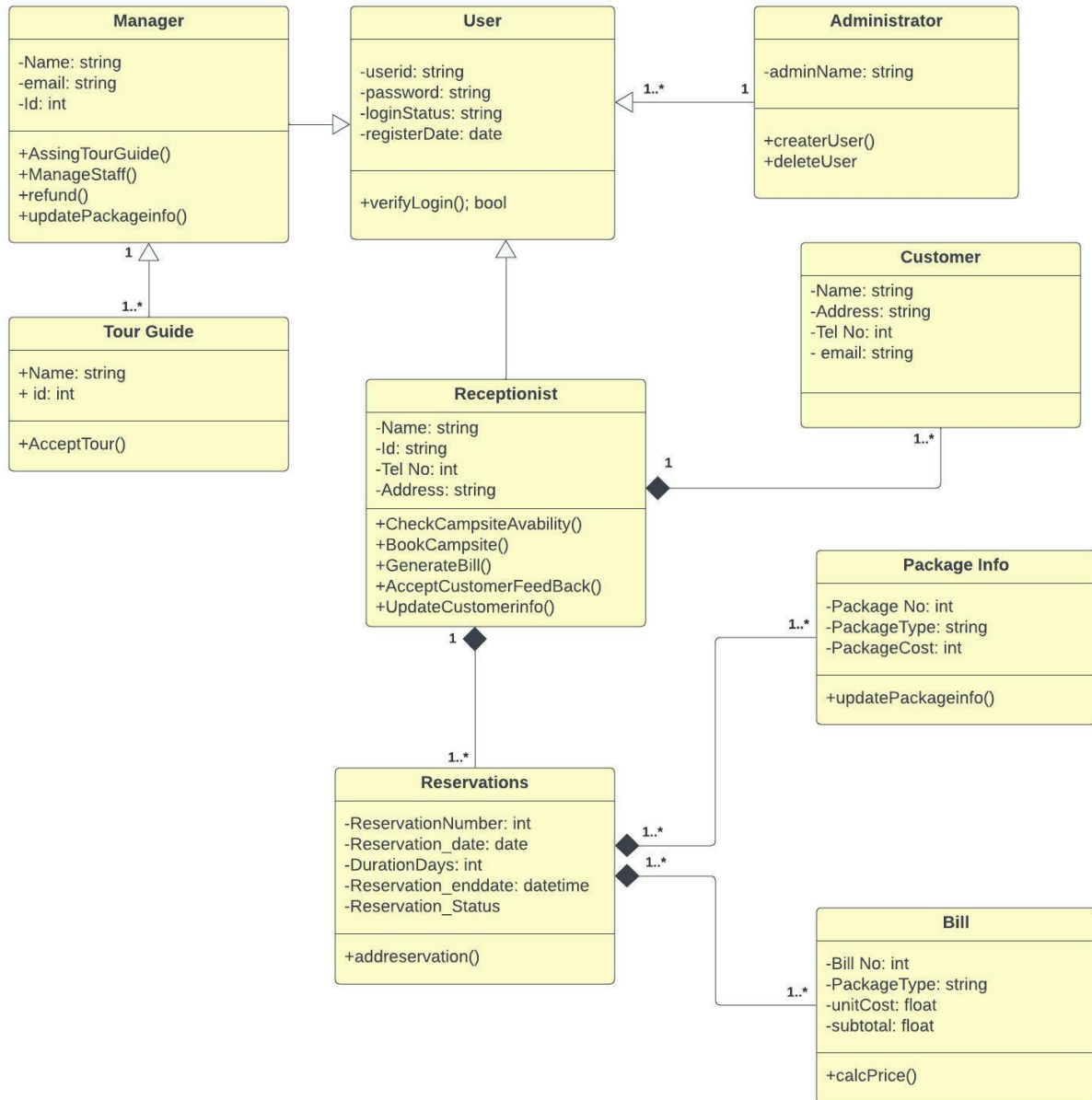


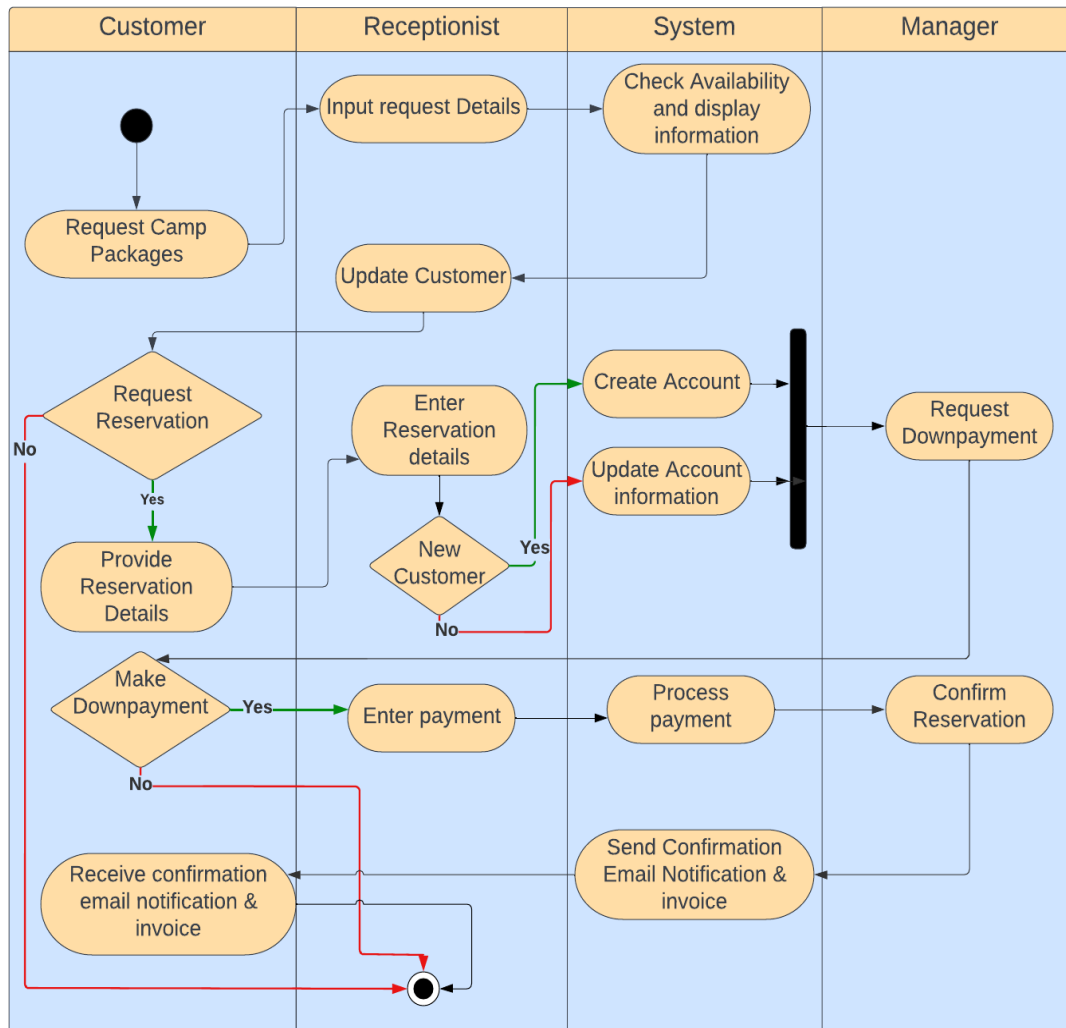
Figure 4: Class Diagram of Camp Kabouyak Reservation System

Camp management system class diagram

Items in a camp management system, such as guest information, staff roles, and campground occupancy, can be related to other objects in the system using a class diagram. The camp management system is usefully summarized in the diagram above.

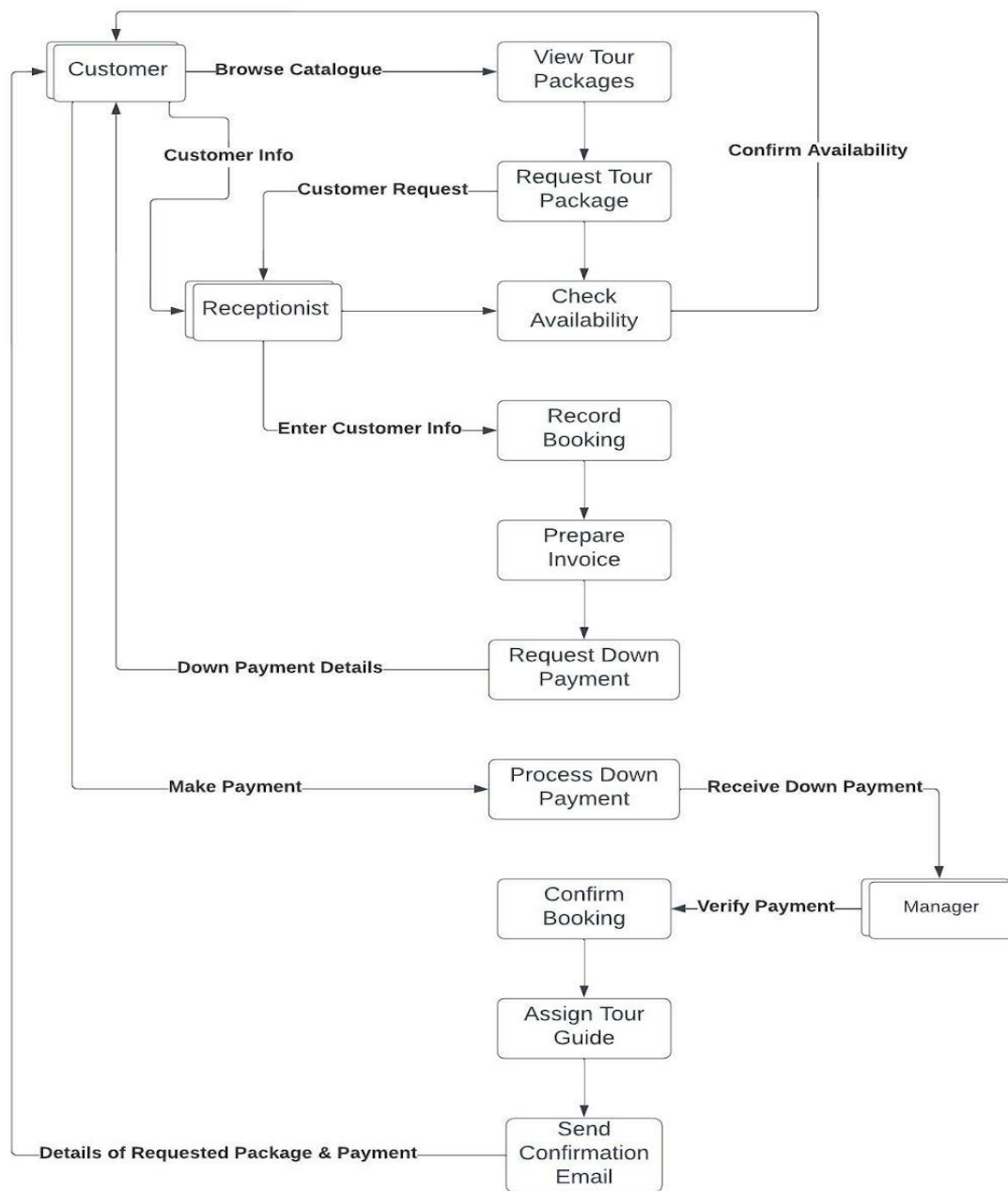
Activity Diagram

Figure 5: Activity Diagram for Camp Kabouyak Reservation System



The provided activity diagram illustrates the flow of activities and interactions among the relevant actors and system processes that will occur when the management system is implemented. It depicts the actions that initiate the system and the processes that a request has to undergo to successfully make a reservation.

Data Flow Diagram



**Data Flow Diagram of
Camp Kabouyak System**

Figure 6: Data Flow Diagram of Camp Kabouyak Information System

Figure 6 above illustrates the data flow process of Camp Kabouyak booking system starting from a customer viewing packages to the confirmation process of a requested package.

Use Case Scenario: Customer views tour packages offered by Camp Kabouyak and request a package of their choice.

To **view tour packages** offered by Camp Kabouyak, a potential customer goes to their Facebook page to find details. The customer then contacts Camp Kabouyak receptionist via phone or messaging on Facebook or WhatsApp to **request a package**. The receptionist would **check the availability** of the particular tour package in the booking system at the time and inform the customer. If the package is available, the customer will provide their personal information to the receptionist who will **record the booking** into the system and then **prepare an invoice**. Next the customer would be **requested to make a down payment**. After a down payment is made and is being **processed in the system**, the manager is notified of payment and proceeds to **confirm the booking** and **assign a tour guide** to the customer. Finally, the system sends a **confirmation email** to the customer with details on the requested package and payment made.