

	Operation		State	logic division between front-end, backend, and DB sides		
Systems	Operation	Operation Type (insertion,deletion, update)	Direct or Have extra business roles	front-end	backend	DB
Bank	Open new account	insertion	Extra business roles	insert client details , ID	check the age of client	insert into Client table
	Deposit money		Direct	insert the amount of money	-	insert into transaction , update the balance
	New loan		Extra business roles	insert the request form of loan	check the balance of client , check the loan type,check documents uploded	insert into loan
	Add beneficiary		Direct	insert the beneficiary account number , bank code or name and user name	-	insert into Beneficiary Table
	New credit card		Extra business roles	insert request of the type of card and the shipping details	check if the account is active	insert into vard-request
	Delete account	deletion	Extra business roles	Delete request form	check the balance of account ,check if have loan or not ,	Change the account status to = 'Closed'
	Delete scheduled payment		Direct	select the scheduled payment thd press delete button	-	Delete row from payment table
	Cancel card		Direct	report card lost form	Freeze card	Update card status to ' Blocked'
	Delete beneficiary		Direct	Delete button and confirmation	-	Delete from Beneficiary Table
	Update Customer contact information	update	Direct	update contact form	-	update Customer contact info in Customer table
	Edit beneficiary details		Direct	update beneficiary detailes form		Update Beneficiary info from Beneficiary Table
	Reschedule loan payment		Extra business roles	Request form	Check loan eligibility	update repayment-schedule
	Change password		Direct	update password form	-	update user password

	Check account balance	query cases	Direct	Balance display	select account balance	Read from Account
	Card status		Direct	Card dashboard	Fetch from card	Read from Card, Card_Status
	View transaction history		Direct	Transaction list	Download	Read Transaction by account
Hospital	Register new patient	Insertion	Extra business roles	adding patient information	check if the patient have account or not	insert into patient table
	Book Appointment		Direct	chose Date / Time	Check availability	insert into appointment
	Admit patient		Extra business roles	Admission form	Check room availability	insert into Admission, update room status
	Add staff member		Extra business roles	New employee form	Validate role, license	insert into staff table
	Cancel appointment	deletion	Direct - Extra business roles	Cancel button	Check cancellation rules - 24h before / -	update Appointment status = 'Cancelled'
	Cancel admission		Extra business roles	Cancellation form	Ensure discharge summary	Update Admission status = 'Cancelled'
	Update patient info	update	Direct	Edit profile page	-	update patient table
	Update diagnosis or treatment		Extra business roles	edit diagnosis or treatment	Check the medicen	update Medical recored
	Change appointment time		Direct	picke new appointment time	-	update appointment time
	Change staff schedule		Extra business roles	change the date and time	check the availability of staff	update staff scehdule
	View patient history	query cases	Extra business roles	Patient search	fetch visits	Query Medical Record, Admission, Lab Results tables
	View appointment schedule		Direct	View schedule	Filter by doctor, patient, date	display Appointment table
	Check room availability		Extra business roles	Room list	Filter by type, availability	Room where Status = 'Available'
	Make reservation - online	insertion	Direct	guest info , payment , reserved date / time	-	insert into reservation system
	Reception reservation		Extra business roles	rservation form	check real time available room	insert into reservation table
	Check in		Extra business roles	ID , room number	validate booking	insert into check in table and update the status of room into = ' Occupied'

Hotel	Cancel reservation	deletion	Direct	Cancel form	-	delete reservation and update the room status ='Available'
	Delete guset info		Extra business roles	Delete guset form	Check the payment status of guest	Delete guest info from guest table
	Cancel service request		Direct	Service cancellation form	-	Delete the service appointment from service schedule and update service status = 'Available'
	Update guest info	update	Direct	Guest profile	-	update the guest info in Guest Table
	Update reservation		Direct	Reservsation form	-	update the Reservation info in Reservation Table
	Upgrade room		Extra business roles	Room form	check the availability of room	Update the room number in the reservation
	Search available rooms	query cases	Direct	Select date	Check room status and bookings	Room where not booked for selected date range
	View reservation details		Direct	Booking dashboard	select Booking details	join Guest, Booking, Room
	Room status report		Extra business roles	Room list	Check Room status	Select from Room with joins to Booking, CheckIn
Airline	Book flight ticket	insertion	Direct	Search flights, seat map, payment form	Check availability	Insert into Booking, Passenger, Ticket, assign seat
	Create flight schedule		Extra business roles	Flight creation form	Chech the availability time and date in schedule	Insert into Flight, Schedule
	Add special service request		Direct	Service option dropdown	Check eligibility	Insert into Service Request, link to Passenger
	Cancel ticket	deletion	Direct	Cancel button	Check refund rules	Update Booking status = 'Cancelled', adjust Seat status
	Cancel flight		Extra business roles	Cancel form	Rebook passengers, notify systems	Update Flight status = 'Cancelled'
	Remove passenger		Extra business roles	Passenger list editor	Check Passenger rules	Mark Passenger.Status = 'Removed' and modify the total passenger

	Change seat selection	update	Direct	Seat map	Check availability	Update Passenger Seat Number
	Edit passenger details		Direct	Edit form	Check name change policy	Update Passenger Name
	Upgrade to business class		Direct	Upgrade options screen	check seat availability	Update Passenger Class
	Search flights	query cases	Direct	destination search	Search Flight where available seats > 0	Flight where available
	Check booking status		Direct	Booking ID	Check availability	Select from Booking
	View loyalty miles		Direct	Loyalty dashboard	search for miles	Read from Loyalty Account
E-Commerce	User account registration	insertion	Direct	Sign-up form	Validate email	Insert into User, User Profile
	Add product review		Direct	Rating / comment form	Check purchase history	Insert into Review
	Add product		Extra business roles	Product form	Validate categories, images, descriptions	Insert into Product
	Cancel order	deletion	Direct	Cancel button	Check order status	Update Order status = 'Cancelled'
	Delete product		Extra business roles	Product list editor	Check for active orders	Update Product status = 'Inactive'
	Remove cart item		Direct	Cart page	-	Delete row from Cart table
	Edit user profile	update	Direct	User profile form	Check validation	Update User_Profile
	Update product		Direct	Product dashboard	Validate stock min/max	Update Product price
	Update order status (shipped, delivered)		Extra business roles	Order update dashboard	update delivery tracking	Update Order status
	Search products	query cases	Direct	Search bar	-	Display Product
	View order history		Direct	Order ID	-	Display Order
	Upload video	insertion	Direct	Upload video form	-	Insert into Video
	Post comment		Direct	Comment input box	-	Insert into Comment
	Subscribe to channel		Direct	Subscribe button	Check duplicate subscription	Insert into Subscription
	Delete uploaded video	deletion	Direct	Delete button on video	-	update status of Video ='Deleted'

YouTube	Remove comment	deletion	Direct	Delete option	-	Delete from Comment
	Unsubscribe channel		Direct	Unsubscribe button	-	Delete from Subscription
	Edit video title/description	update	Direct	Video editor form	-	Update Video title
	Update profile/channel info		Direct	Edit profile page	-	Update user profile
	Change video visibility (public/private)		Direct	Visibility selector	-	Update Video visibility
	Search videos	query cases	Direct	Search bar with filters	Search	View video
	View video and related content		Direct	Video player with recommendation	-	Read from Video, Recommendation