

1. Insert or Add Button

Table Used- OfficeStaff

Here a GUI is designed to Add Office Staff member with primary key as Employee ID.

Before Add OfficeStaff

OfficeStaff Details									Add OfficeStaff
EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations	
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	<button>Update</button> <button>Delete</button>	
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>	
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	<button>Update</button> <button>Delete</button>	
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>	
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	<button>Update</button> <button>Delete</button>	
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	<button>Update</button> <button>Delete</button>	

After Add OfficeStaff

User Input Screen

EmployeeID

ContactNumber

Email

FName

LName

DateOfBirth

Position

Department

Added OfficeStaff

[Add OfficeStaff](#)

EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	Update Delete
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	Update Delete
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	Update Delete
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	Update Delete
Added Row		E14	123445	fg@gmail.com	Pulkit	Nandrajog	1999-10-09	GeneralClerk CustomerService
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	Update Delete
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	Update Delete

2. Update Button

Table Used- OfficeStaff

Here a GUI is designed to update Office Staff member with primary key as Employee ID.

Before Update OfficeStaff

OfficeStaff Details									Add OfficeStaff
	EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations
	E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	<button>Update</button> <button>Delete</button>
	E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>
	E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	<button>Update</button> <button>Delete</button>
	E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>
Added Row	E14	123445	fg@gmail.com	Pulkit	Nandrajog	1999-10-09	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>
	E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	<button>Update</button> <button>Delete</button>
	E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	<button>Update</button> <button>Delete</button>

After Update OfficeStaff

Update OfficeStaff Screen with changing updating Email of Employee E14.

EmployeeID

ContactNumber

Email

FName

LName

DateOfBirth

Position

Department

Updated OfficeStaff Screen

[Add OfficeStaff](#)

EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	Update Delete
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	Update Delete
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	Update Delete
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	Update Delete
E14	123445	pilkit@gmail.com	Pulkit	Nandrajog	1999-10-09	GeneralClerk	CustomerService	Update Delete
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	Update Delete
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	Update Delete

3. Delete Button

Table Used- OfficeStaff

Here a GUI is designed to delete Office Staff member with primary key as Employee ID.

Before Delete OfficeStaff

[Add OfficeStaff](#)

EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	Update Delete
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	Update Delete
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	Update Delete
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	Update Delete
E14	123445	pilkit@gmail.com	Pulkit	Nandrajog	1999-10-09	GeneralClerk	CustomerService	Update Delete
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	Update Delete
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	Update Delete

After Delete OfficeStaff

Deleted row with EmployeeID E14

Add OfficeStaff

EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department	Operations
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information	<button>Update</button> <button>Delete</button>
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information	<button>Update</button> <button>Delete</button>
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService	<button>Update</button> <button>Delete</button>
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper	<button>Update</button> <button>Delete</button>
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService	<button>Update</button> <button>Delete</button>

4. Select Button

Table Used- OfficeStaff

Here a GUI is designed to select the columns which user want to get displayed having where condition of asking first name of Employee from the user

Before Select Query

This Page returns the OfficeStaff:-

Columns in OfficeStaff tables are :

EmployeeID
ContactNumber
Email
FName
LName
Position
Department

Enter Column Name with comma Separated
Where Employee first name is

After Select Query

EmployeeID	Email	Position	Department
E11	sps@gmail.com	GeneralClerk	CustomerService

5. Projection Button

Table Used- OfficeStaff

Here a GUI is designed to project the columns which user want to get displayed

Before Projection Query

This Page is used to project the columns of Table OfficeStaff:-

Columns in OfficeStaff tables are :

EmployeeID
ContactNumber
Email
FName
LName
Position
Department

Enter Column Names with comma Separated

After Projection Query

FName	LName	EmployeeID
Harleen	Kaur	E10
Sanyam	Singh	E11
Harry	Styles	E12
Pasha	Kumar	E13
Pasha	Kumar	E8
Sharjeel	Ahmad	E9

6. Join Button

Tables Used- OfficeStaff, Help_Customer

Here a GUI is designed to Join the columns OfficeStaff and Help_Customer with the EmployeeID column. The result table will be having EmployeeID, FName \$ LName of table Help_Customer and Department of table OficeStaff.

Before Join Query

EmployeeID	ContactNumber	Email	FName	LName	DateOfBirth	Position	Department
E10	234765	hk@gmail.com	Harleen	Kaur	2001-04-18	GeneralClerk	Information
E11	236998	sps@gmail.com	Sanyam	Singh	2000-01-10	GeneralClerk	CustomerService
E12	789076	hs@gmail.com	Harry	Styles	1994-02-01	Supervisor	Information
E13	567890	rk@gmail.com	Pasha	Kumar	1995-05-02	GeneralClerk	CustomerService
E8	567890	pk@gmail.com	Pasha	Kumar	1994-02-01	GeneralClerk	BookKeeper
E9	778678	sa@gmail.com	Sharjeel	Ahmad	1998-01-30	Manager	CustomerService

CustomerID	Age	FName	LName	EmployeeID
C001	19	Harnoor	Singh	E9
C0081	21	Emily	Anderson	E13
C09	55	Talha	Azhar	E11
C12	33	Asim	Azhar	E13
C124	21	Thomas	Shelby	E12
C9981	25	Roy	Thomson	E11

Join the above tables with:-

EmployeeID1

E11

EmployeeID2

E13

Join

After Join Query

EmployeeID	FName	LName	Department
E13	Emily	Anderson	CustomerService
E11	Talha	Azhar	CustomerService
E13	Asim	Azhar	CustomerService
E11	Roy	Thomson	CustomerService

7. Aggregation Button

Tables Used- Category Table

Here aggregation is done on the category table to get the average and maximum cost of each car category

Before Aggregation Query

CategoryName	CostPerDay	PassengerCount	UsabilityType
Coupe	50	2	Regular
MidsizeSUV	25	5	Regular
Sedan	20	5	Regular
SUV	30	7	Regular
SUV	40	3	Special

Aggregate category Table to get the average and maximum cost of each car category

Run Aggregation

After Aggregation Query

CategoryName	Average_Cost	Max_Cost
Coupe	50	50
MidsizeSUV	25	25
Sedan	20	20
SUV	35	40

8. Nested- Aggregation Button

Tables Used- Payment

Here nested-aggregation is done on the Payment table to get the number of rentals or payment amount of a month greater than the average amount of the same month. It gives result of every month(if possible).

Before Nested-Aggregation Query

PaymentID	Amount	CardType	PaymentStatus	PaymentDate
P001	80	Credit	Confirmed	2022-01-26
P0094	300	Credit	NotConfirmed	2022-01-20
P01	100	Debit	Confirmed	2022-01-10
P20	200	Credit	Confirmed	2022-01-15
P3001	100	Debit	NotConfirmed	2022-02-10
P5	255	Debit	Confirmed	2022-02-01

Here is to get the number of payments greater than the average earning in a particular month

[Run Nested-Aggregation](#)

After Nested-Aggregation Query

Explanation- There are only two amounts or rentals which were greater than the average amount of the month=1(January). Similarly, there is only amount or rentals greater than the average amount of the month=2(February).

Month	Num_Of_Rentals
1	2
2	1

9. Division Button

Tables Used- CabDriver_Offer and Driving

Here Division query is used to get the FName, LName, EmployeeID, and ServiceID of the Cab drivers who are L1Driver, L2Driver, L3Driver (ask from the user).

Before Division Query

EmployeeID	ContactNumber	Email	DriverLicense	FName	LName	DateOfBirth	ServiceID
E1	7785	j@hotmail.com	DL:4376703	Jack	Ping	1990-01-02	S001
E2	4534	jt@hotmail.com	DL:4198401	Joey	Tribiani	1996-01-05	S002
E3		mc@hotmail.com	DL:4287809	Monica	Singh	1995-01-01	S003
E4	6023	jc@hotmail.com	DL:3021911	Jack	Charles	1997-01-08	S002
E5	1287	ab@hotmail.com	DL:4564344	Abhishek	Kumar	1993-02-05	S0041
E6	6786		DL:6789076	Steve	Hardy	1997-01-08	SA0976

ServiceID	ServiceLevel	ServiceType
S001	L1Driver	InCity
S002	L2Driver	OutCity
S003	L2Driver	HillSpecial
S0041	L3Driver	LongPeriod
S035	L1Driver	OneWay
S1255	L3Driver	LongPeriod
SA0976	L1Driver	InCity

Here to get the first & last name, EmployeeID and ServiceID of all the drivers who has the following ServiceLevel

ServiceLevel

L2Driver|

Run Division

After Division Query

User Input= L2Driver

EmployeeID	FName	LName	ServiceID
E2	Joey	Tribiani	S002
E3	Monica	Singh	S003
E4	Jack	Charles	S002