



# Project Report

ON

## **HOTEL MANAGEMENT SYSTEM**

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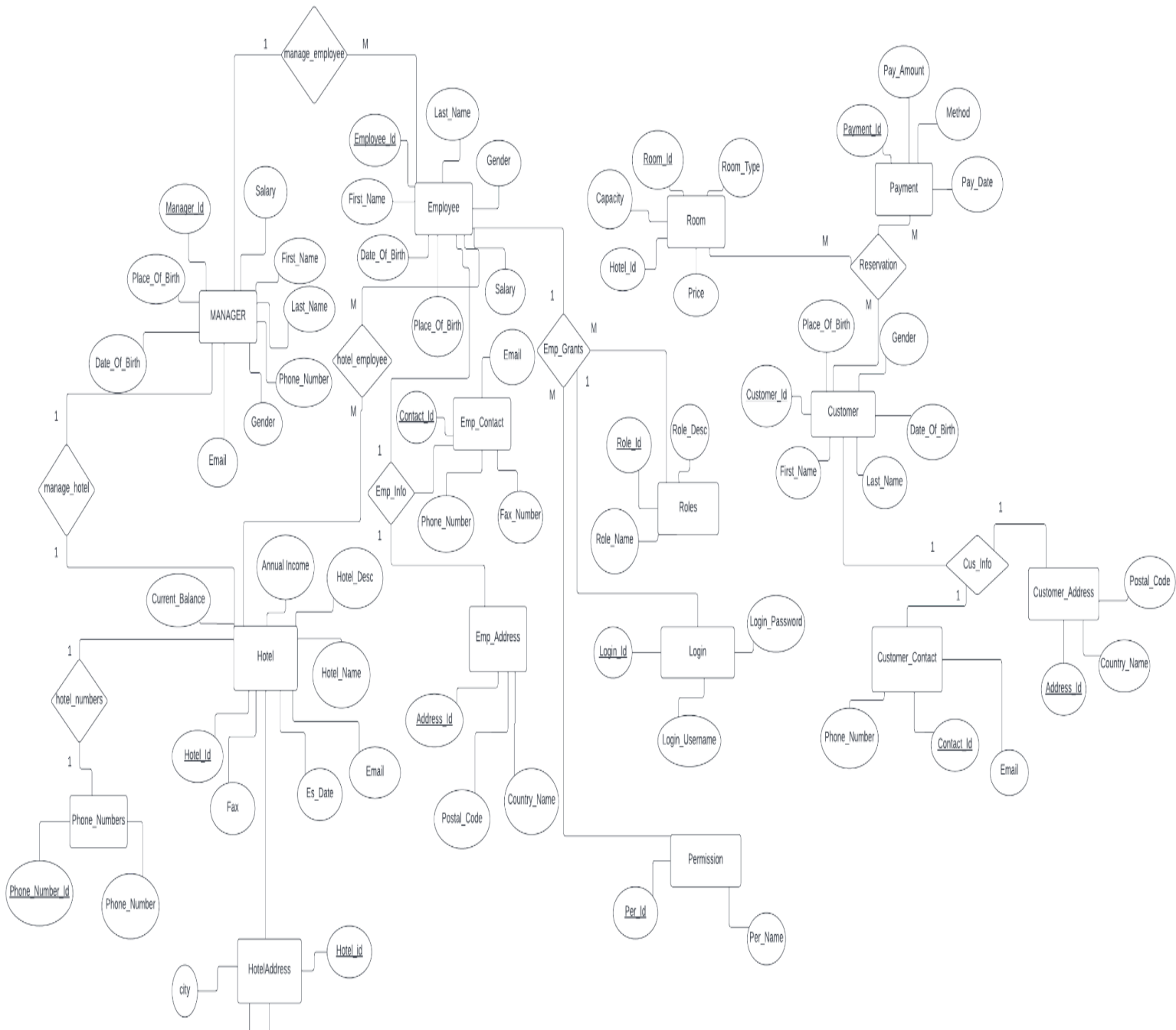
# Problem Statement

To manage the data flow between various hotels and to ease the reservation process of a customer in a hotel, it's a good idea to develop a system which will save employees' and customers' time and increase the productivity of a hotel.

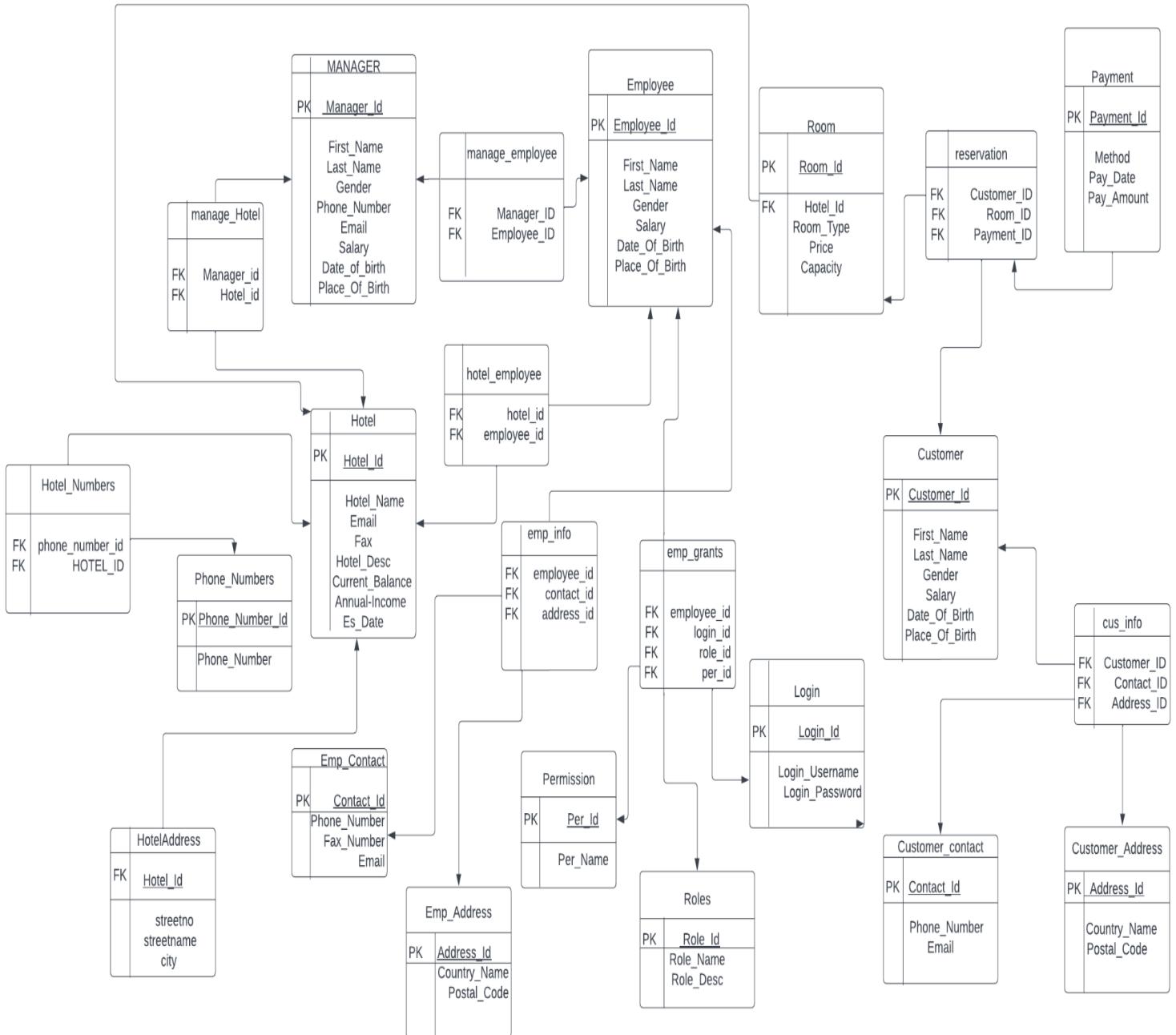
## Requirements-

- Create tables for Manager, Hotel, Room , Employee, Customer, Reservation, Employee Contact, Hotel's phone numbers, employee's address, login, permission and roles, customer contact, customer address, customer payment, along with the tables of relation.
- The manager will have access and permission to the hotel and its employees and will have permission to hire and drop the employees.
- The manager can manage the hotel and employees.
- Customers can book or reserve a room if available.
- The manager can access all the tables available in the system.
- Keep customers, rooms, and payment IDs on the reservation table.

# ER DIAGRAM



# ER TO TABLE



# Normalization (Normalized Tables)

```
select * from hotel
```

HOTEL_ID	HOTEL_NAME	EMAIL	FAX	HOTEL_DESC	CURRENT_BALANCE	ANNUAL_INCOME	ES_DATE
101	Regency Hotel	hotel@regency.org	+1 323 555 1234	Supremely comfortable with modern amenities, our spacious guest rooms enjoy a distinctive decor and color scheme	3535465.23	3475477433	27-SEP-64
102	Imperial Hotel	hotel@imperial.org	+1 525 565 7284	Classic designed timeless elegance of guest room interiors capture the unique character of Hotel Imperial.	2775485.76	2775975433	02-SEP-66
103	Atlantis Hotel	hotel@atlantis.net	+1 747 567 7249	Rated with 3 stars, this high-quality property provides guests with access to restaurant and fitness center on-site.	2825985.81	2285975903	10-APR-67
104	Hotel Vio	hotel@vio.org	+1 845 651 1516	The hotel's food and beverage department comprises of one restaurant and three bars located strategically within the hotel.	3625985.81	2165975383	19-DEC-69
105	Hotel Divine	hotel@divine.net	+1 291 211 1236	The Hotel Divine has a capacity of 234 rooms. Has an outstanding design and excellent guest services.	7545633.81	3476748	31-AUG-64
106	Hotel Luxe	hotel@luxe.net	+1 578 490 7654	The Hotel accommodates numerous and diverse customers, the facility is open 24 hours for seven days in a week.	532664.76	6785402	31-AUG-64
107	Hotel Radiance	hotel@radiance.org	+1 354 652 7153	Hotel Radiance, the main hotel, offers Western grill and Asian gastronomy, features a demonstration kitchen, sushi bar and Lobby Lounge.	554267.15	123246732	04-NOV-64
108	Sphinx Hotel	hotel@sphinx.org	+1 786 456 6788	The Sphinx has an ultra modern club the "Sphinx Club". The club is positioned on the ninth floor; it provides its visitors a private lounge area as well as a dedicated concierge.	983563.22	253567897	29-MAY-65
110	Hotel Bytes	hotel@bytes.net	+1 343 980 4500	Has a capacity of 453 rooms. Has an outstanding design and excellent guest services.	815543.14	235643210	18-JUL-66
109	Hotel Osiris	hotel@osiris.net	+1 345 458 3421	Supremely comfortable with modern amenities, our spacious guest rooms enjoy a distinctive decor and color scheme	543263.28	129865430	18-JAN-66
111	Okra	hotel@okra.org	+1 123 455 0675	Rated with 5 stars, this high-quality property provides guests with access to restaurant and fitness center on-site.	5654354.1	22864352	20-APR-67
113	Hotel Lance	hotel@lance.net	+1 567 004 2780	Supremely comfortable with modern amenities, our spacious guest rooms enjoy a distinctive decor and color scheme	6543381.11	109876453	06-SEP-68
112	Paradise	hotel@paradise.net	+1 450 631 1236	Has an outstanding design and excellent guest services.	7365321.87	125643256	17-MAY-67
115	Hotel Lush	lushhotel.org	+1 090 674 1456	Rated with 4 stars, this high-quality property provides guests with access to restaurant and fitness center on-site.	5645435	876748	01-AUG-64
114	Hotel Rouge	hotel@rogue.net	+1 560 345 0863	The Hotel Rouge has a capacity of 567 rooms. Has an outstanding design and excellent guest services.	7365721	6676752	11-FEB-69

```
select * from manager
```

MANAGER_ID	FIRST_NAME	LAST_NAME	GENDER	PHONE_NUMBER	EMAIL	SALARY	DATE_OF_BIRTH	PLACE_OF_BIRTH
501	Genna	Thrower	F	123456234	gen_thr@regency.org	268838	08-JUN-76	Atlanta
502	Pinch	Falk	M	674890123	pifa@imperial.org	137186	25-MAY-78	Los Angeles
503	Erwin	Munch	M	789834352	er_munch@atlantis.net	255964	10-MAR-80	California
504	Faber	Kindred	M	807563214	faber.kindre@hotelvio.org	191713	15-AUG-83	Florida
505	Verena	Solomon	F	905300123	verenasolomo@divine.net	140180	27-DEC-77	Denver
506	Jo	Brashears	O	908753256	jo-brashears@luxe.net	181390	22-OCT-79	Las Vegas
507	Moss	Harter	M	765490012	moss_harter@radiancance.org	113644	09-APR-80	Boston
508	Jocasta	Hanna	O	985634732	joc.han@sphynx.org	111073	12-JAN-81	Atlanta
509	Kismet	Brashears	F	674989477	kismet-brash@osiris.net	119157	14-JUN-82	Georgia
510	Phylcia	Spitler	F	567764564	phylcispitl@byteshotel.net	190621	23-FEB-83	Las Vegas
511	Navdeep	Kuiper	F	907457744	navdee_ku@okra.org	135352	26-MAY-83	Columbia
512	Franklin	Matula	M	786564762	frank-mat@paradise.net	137186	15-MAR-77	Oklahoma City
513	Campbell	Aldrich	M	645789034	cam-aldric@lance.net	279664	06-SEP-76	Tennessee
514	Naveen	Overturf	M	896754670	navee.ov@rogue.net	146831	08-NOV-79	New York
515	Nitara	Banda	F	457390832	nitara-banda@lushhotel.org	140180	16-MAY-83	California

```
select * from employee
```

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	GENDER	SALARY	DATE_OF_BIRTH	PLACE_OF_BIRTH
10001	Chloe	Hoffman	F	120000	12-JAN-86	Los Angeles
10002	Amber	Ortiz	M	150000	26-MAR-78	Florida
10003	Amber	Smith	M	100000	15-SEP-80	Boston
10004	Nathaniel	Waller	O	180000	29-MAR-77	Las Vegas
10005	Cynthia	Singh	F	200000	15-MAY-78	Denver
10006	Rachel	Williams	F	150000	23-DEC-80	California
10007	Roger	Gonzalez	M	170000	12-JAN-86	Atlanta
10008	David	Clayton	M	55000	01-FEB-95	Columbia
10009	Amanda	Henry	O	125000	05-APR-89	Georgia
10010	Veronica	Mooney	F	175000	16-AUG-78	Oklahoma City
10011	Cynthia	Newton	F	100000	19-JAN-88	New York
10012	Joseph	Shelton	M	75000	07-NOV-95	Tennessee
10013	Nathan	Brown	M	150000	17-MAY-83	Denver
10014	Terry	Sanders	M	200000	03-OCT-79	Columbia
10015	Joshua	Jimenez	O	175000	20-FEB-91	Los Angeles
10016	Edward	Taylor	M	120000	22-MAR-93	New York
10017	Anna	Phillips	F	170000	05-APR-89	New York
10018	Cassandra	Stephens	F	160000	23-MAR-90	Boston
10019	Meghan	Wall	F	80000	26-JUN-95	Atlanta
10020	Jennifer	Becker	F	200000	23-DEC-81	California

```
select * from manage_employee
```

MANAGER ID	EMPLOYEE ID
501	10001
502	10002
503	10003
504	10004
505	10005
506	10006
507	10007
508	10008
509	10009
510	10010
511	10011
512	10012
513	10013
514	10014
515	10015
511	10016
512	10017
513	10018
501	10019
506	10020
501	10001
502	10002
503	10003
504	10004
505	10005
506	10006
507	10007
508	10008
509	10009
510	10010
511	10011
512	10012
513	10013
514	10014
515	10015
511	10016
512	10017
513	10018
501	10019
506	10020

```
select * from manage_hotel
```

MANAGER ID	HOTEL ID
501	101
502	102
503	103
504	104
505	105
506	106
507	107
508	108
509	109
510	110
511	111
512	112
513	113
514	114
515	115
501	101
502	102
503	103
504	104
505	105
506	106
507	107
508	108
509	109
510	110
511	111
512	112
513	113
514	114
515	115
501	101
502	102
503	103
504	104
505	105
506	106
507	107
508	108
509	109
510	110
511	111
512	112
513	113
514	114
515	115

```
select * from hotel_employee
```

HOTEL ID	EMPLOYEE ID
101	10001
102	10002
103	10003
104	10004
105	10005
106	10006
107	10007
108	10008
109	10009
110	10010
111	10011
112	10012
113	10013
114	10014
115	10015
111	10016
112	10017
113	10018
101	10019
106	10020
101	10001
102	10002
103	10003
104	10004
105	10005
106	10006
107	10007
108	10008
109	10009
110	10010
111	10011
112	10012
113	10013
114	10014
115	10015
111	10016
112	10017
113	10018
101	10019
106	10020



```
select * from hotel_numbers
```

HOTEL_ID	PHONE_NUMBER_ID
101	801
102	802
103	803
104	804
105	805
106	806
107	807
108	808
109	809
110	810
111	811
112	812
113	813
114	814
115	815
101	801
102	802
103	803
104	804
105	805
106	806
107	807
108	808
109	809
110	810
111	811
112	812
113	813
114	814
115	815
101	801
102	802
103	803
104	804
105	805
106	806
107	807
108	808
109	809
110	810
111	811
112	812
113	813
114	814
115	815

```
select * from hoteladdress
```

HOTEL_ID	STREETNO	STREETNAME	CITY
101	1613	Stroop Hill Road	Atlanta
102	689	Southside Lane	Los Angeles
103	3545	Carson Street	California
104	4065	Marshville Road	Florida
105	2800	Shobe Lane	Denver
106	3414	Copperhead Road	Las Vegas
107	1757	Romano Street	Boston
108	3257	Musgrave Street	Atlanta
109	3354	Griffin Street	Georgia
110	312	Rowes Lane	Las Vegas
111	2626	Briercliff Road	Columbia
112	3775	Locust Court	Oklahoma City
113	1008	Woodland Terrace	Tennessee
114	3850	Woodland Drive	New York
115	1883	Lost Creek Road	California

```
select * from phone_numbers
```

PHONE_NUMBER_ID	PHONE_NUMBER
801	4847521041
802	4082929866
803	8034027126
804	3368772674
805	2766386489
806	6145747184
807	2184296880
808	6025442421
809	8105956269
810	3174906973
811	3024928309
812	4178746959
813	6306895669
814	8032613980
815	2133096881

```
select * from emp_contact
```

CONTACT_ID	PHONE_NUMBER	FAX_NUMBER	EMAIL
401	77864	+44 11 99 888	hoffman@regency.org
402	77864	+44 11 99 888	ortiz@regency.org
403	70736	+44 31 61 328	smith@imperial.org
404	79721	+44 04 72 812	waller@atlantis.net
405	77870	+44 07 55 639	singh@vio.org
406	78651	+44 89 19 561	williams@divine.net
407	77611	+44 41 12 902	gonzalez@luxe.net
408	70033	+44 73 63 123	clayton@radianc.org
409	79826	+44 98 29 636	henry@sphynx.org
410	79161	+44 12 03 916	mooney@bytes.net
411	78305	+44 56 27 474	newton@osiris.net
412	77443	+44 73 54 127	shelton@okra.org
413	77804	+44 28 48 947	brown@lance.net
414	70522	+44 31 37 333	sanders@paradise.net
415	79748	+44 10 29 258	jimenez@lushhotel.org
416	79898	+44 28 58 271	taylor@rogue.net
417	77157	+44 95 77 141	phillips@bytes.org
418	78489	+44 84 13 833	stephens@divine.net
419	77100	+44 76 88 900	wall@okra.org
420	79115	+44 21 34 111	becker@atlantis.net

```
select * from emp_address
```

ADDRESS_ID	COUNTRY_NAME	POSTALCODE
301	Canada	90001
302	Argentina	32799
303	Brazil	22360
304	Colombia	89101
305	Brazil	31214
306	Mexico	22750
307	Mexico	30319
308	Canada	29292
309	Georgia	452324
310	Mexico	73139
311	New York	10801
312	Tennessee	37843
313	Brazil	80221
314	Canada	79323
315	Argentina	50622
316	New York	46926
317	New York	64441
318	Brazil	17517
319	Mexico	80248
320	Colombia	680517

```
select * from roles
```

ROLE_ID	ROLE_NAME	ROLE_DESC
1000	Manager	manages the whole hotel
1001	Cleaner	cleans the whole hotel
1002	Receptionist	manages the guests
1003	IT Tech Guy	provides the tech work
1004	Chef	cooks for the guests

```
select * from permission
```

PER_ID	PER_NAME
2001	add/remove employees
2002	handle the frontend/backend
2003	access personal details
2004	provide cleaning facilities
2005	book rooms

```
select * from login
```

LOGIN_ID	LOGIN_USERNAME	LOGIN_PASSWORD
3000	Chloe_hoff	chlo12
3001	Amber_Ortiz	amBer123
3002	Amber_Smith	Smith12
3003	Nathan_waller	callmeNate
3004	CynthiaS	singhkingcyn
3005	Rach_greene	williams12
3006	gone_Roger	captain_rogers
3007	Clay_dave	david98
3008	hen_amanda	henryamanda12
3009	Veronica_red	chasing_Red
3010	cleaner_girl	gravity
3011	shelt_jose	jesuslovesusall
3012	Nathan_brown	brownat
3013	Sanders_terry	bb99_terry
3014	josh_jim	gyminez
3015	taytay_ed	edward_tay
3016	ana_philips	philipino
3017	Cass_stephens	stephenking_cass
3018	meghan_wall	wall12345
3019	jen_beck	jenniferlopez

```
select * from emp_info
```

EMPLOYEE ID	CONTACT ID	ADDRESS ID
10001	401	301
10002	402	302
10003	403	303
10004	404	304
10005	405	305
10006	406	306
10007	407	307
10008	408	308
10009	409	309
10010	410	310
10011	411	311
10012	412	312
10013	413	313
10014	414	314
10015	415	315
10016	416	316
10017	417	317
10018	418	318
10019	419	319
10020	420	320
10001	401	301
10002	402	302
10003	403	303
10004	404	304
10005	405	305
10006	406	306
10007	407	307
10008	408	308
10009	409	309
10010	410	310
10011	411	311
10012	412	312
10013	413	313
10014	414	314
10015	415	315
10016	416	316
10017	417	317
10018	418	318
10019	419	319
10020	420	320
10001	401	301
10002	402	302
10003	403	303
10004	404	304
10005	405	305
10006	406	306
10007	407	307
10008	408	308
10009	409	309
10010	410	310

```
select * from emp_grants
```

EMPLOYEE ID	LOGIN ID	ROLE ID	PER ID
10001	3000	1000	2001
10002	3001	1000	2001
10003	3002	1001	2004
10004	3003	1003	2002
10005	3004	1001	2004
10006	3005	1002	2005
10007	3006	1004	2003
10008	3007	1004	2003
10009	3008	1004	2003
10010	3009	1002	2005
10011	3010	1001	2004
10012	3011	1004	2003
10013	3012	1004	2003
10014	3013	1003	2002
10015	3014	1001	2004
10016	3015	1001	2004
10017	3016	1004	2003
10018	3017	1002	2005
10019	3018	1004	2003
10020	3019	1004	2003
10001	3000	1000	2001
10002	3001	1000	2001
10003	3002	1001	2004
10004	3003	1003	2002
10005	3004	1001	2004
10006	3005	1002	2005
10007	3006	1004	2003
10008	3007	1004	2003
10009	3008	1004	2003
10010	3009	1002	2005
10011	3010	1001	2004
10012	3011	1004	2003
10013	3012	1004	2003
10014	3013	1003	2002
10015	3014	1001	2004
10016	3015	1001	2004
10017	3016	1004	2003
10018	3017	1002	2005
10019	3018	1004	2003
10020	3019	1004	2003
10001	3000	1000	2001
10002	3001	1000	2001
10003	3002	1001	2004
10004	3003	1003	2002
10005	3004	1001	2004
10006	3005	1002	2005
10007	3006	1004	2003
10008	3007	1004	2003
10009	3008	1004	2003
10010	3009	1002	2005

```
select * from customer
```

CUSTOMER ID	FIRST NAME	LAST NAME	GENDER	DATE OF BIRTH	PLACE OF BIRTH
201	Kenneth	Gonzales	M	12-JUL-64	Chicago
202	Sandra	Gutierrez	F	25-SEP-64	Los Angeles
203	Michael	Perry	M	13-NOV-89	Moscow
204	Andrew	Mcgrath	M	16-JAN-74	San Diego
205	Crystal	Ward	F	02-MAR-98	Cape Town
206	Timothy	Lester	M	21-NOV-89	Daejeon
207	Allison	Watson	F	21-JUN-94	Chicago
208	Alan	Johnson	M	23-APR-89	Almaty
209	David	Hernandez	M	11-AUG-74	Moscow
210	Heidi	Berry	M	17-DEC-96	Philadelphia
211	Jessica	Hodge	F	17-NOV-92	Fortaleza
212	Peter	Franco	M	16-JAN-91	Toronto
213	Tina	Carter	F	15-NOV-89	Tashkent
214	Matthew	Anderson	M	12-JAN-82	Medellin
215	Jerry	Martin	M	08-MAR-85	Osaka
216	Troy	Lopez	M	04-APR-78	Medellin
217	Jonathan	Turner	M	03-DEC-64	Chicago
218	Grace	Johnson	F	19-SEP-91	Almaty
219	Steven	Woods	M	07-NOV-64	Tokyo
220	Nicholas	Hahn	M	06-OCT-91	Philadelphia
221	Tamara	Craig	M	03-JAN-79	Chicago
222	Amy	Fuller	F	17-NOV-00	Daejeon
223	Morgan	Adams	M	16-OCT-91	Chicago
224	Sharon	Jones	F	15-JUL-99	Tokyo
225	Amanda	Perez	F	11-MAR-99	Fortaleza
226	David	Hancock	M	18-SEP-64	Chicago
227	Ryan	Adams	M	19-JUL-64	San Antonio
228	Joanna	Collins	M	06-APR-64	Recife
229	Christina	Lowery	M	01-MAR-64	Busan
230	Curtis	Allen	M	23-JUL-91	Tangshan
231	Larry	Jones	M	26-NOV-64	San Diego
232	Patricia	White	F	27-OCT-99	Chicago
233	Travis	Benton	M	28-DEC-64	Philadelphia
234	Jesse	Garcia	F	08-APR-91	San Diego
235	William	Chase	M	13-MAR-64	Monterrey
236	Willie	Taylor	M	02-SEP-97	Qom
237	Julia	Gibson	F	25-DEC-01	Dubai
238	Alexander	White	M	24-JUL-64	Recife
239	Robert	Simpson	M	07-OCT-64	Almaty
240	Carol	Santana	F	21-DEC-91	Cape Town
241	John	Smith	M	27-SEP-91	Daejeon
242	Jonathan	Hurst	M	30-NOV-64	Toronto
243	Lori	Lewis	M	06-JAN-91	Qom
244	Morgan	Baker	M	01-APR-97	Chicago
245	Jessica	Macias	F	16-SEP-97	Chicago
246	Charles	Murray	M	14-MAR-01	Philadelphia
247	Jaime	Sandoval	F	05-JAN-99	Moscow
248	Katelyn	Hudson	F	09-NOV-91	Cape Town
249	Anita	Richardson	F	13-APR-00	Ahmedabad
250	Jeremy	Houston	M	30-SEP-99	San Diego

```
select * from customer_contact
```

CONTACT ID	PHONE NUMBER	EMAIL
700	2088356665	kenneth@gmail.com
701	2024779990	sandra@hotmail.com
702	6672192840	michael@gmail.com
703	4047719748	andrew@gmail.com
704	8508195150	crystal@gmail.com
705	5412886792	timothy@hotmail.com
706	8027257363	allison@hotmail.com
707	2284979597	alan@gmail.com
708	4693838501	david@gmail.com
709	6058677101	heidi@gmail.com
710	5852944557	jessica@hotmail.com
712	4356027727	tina@hotmail.com
713	6124025739	matthew@hotmail.com
714	3854687925	jerry@gmail.com
715	4753553182	troy@hotmail.com
716	8122149292	jonathan@hotmail.com
717	304597743	grace@gmail.com
718	4053013041	steven@gmail.com
719	6023532090	nicholas@gmail.com
720	8567931561	tamara@gmail.com
721	2057179766	amy@gmail.com
722	4242576192	morgan@hotmail.com
723	5176927212	sharon@hotmail.com
724	2622002794	amanda@gmail.com
725	2104346944	david@gmail.com
726	2173918308	ryan@gmail.com
727	6108935725	joanna@gmail.com
728	5075464449	christina@gmail.com
729	3852031250	curtis@hotmail.com
730	7476669781	larry@gmail.com
731	6573835009	patricia@gmail.com
732	2137053258	travis@gmail.com
733	5673517987	jesse@gmail.com
734	3619297039	william@hotmail.com
735	6502374493	willie@gmail.com
736	5515743741	julia@hotmail.com
737	2563543356	alexander@hotmail.com
738	4146391986	robert@hotmail.com
739	4582067880	carol@hotmail.com
740	6146608657	john@hotmail.com
741	7625854651	jonathan@gmail.com
742	4049533927	lori@hotmail.com
743	6022315762	morgan@hotmail.com
744	2282203750	jessica@hotmail.com
745	4155724658	charles@hotmail.com
746	4109637664	jaime@gmail.com
747	5803664562	katelyn@hotmail.com
748	6514345407	anita@hotmail.com
749	4138226686	jeremy@hotmail.com
711	6269233217	peter@gmail.com

```
select * from customer_address
```

ADDRESS ID	COUNTRY NAME	POSTAL CODE
701	Illinois	H1Y 2V1
702	California	E8E 1S7
703	Russia	S4S 4H4
704	California	N3R 1S5
705	South Africa	V0E 1H2
706	South Korea	L9R 1H2
707	Illinois	N8A 4K9
708	Kazakhstan	J0B 1M0
709	Russia	V0R 1G0
710	Pennsylvania	MSV 3M3
711	Brazil	V0R
712	Canada	T1B 4R3
713	Uzbekistan	H9R 4R8
714	Colombia	M29 8FJ
715	Japan	TSK 128
716	Colombia	EH7 4AH
717	Illinois	T7Z 2Y4
718	Kazakhstan	NG16 6JA
719	Japan	L9Z 2W3
720	Pennsylvania	N17 9GE
721	Illinois	N5P 3T1
722	South Korea	DH2 3TJ
723	Illinois	T1B 0B4
724	Japan	EH52 5EJ
725	Brazil	J9B 1E8
726	Illinois	CM6 1EA
727	Texas	T4C 1C2
728	Brazil	PE6 8PP
729	South Korea	T0A 3A2
730	China	WF3 3NA
731	California	V2W 1P1
732	Illinois	TW5 9DT
733	Pennsylvania	P0W 1C0
734	California	EH32 0JE
735	Mexico	V1W 2C7
736	Iran	DD2 1LP
737	UAE	N1T 1Z8
738	Brazil	PA2 0AU
739	Kazakhstan	M4E 3C1
740	South Africa	SS17 0EX
741	South Korea	V8S 4Y8
742	Canada	TQ14 9AU
743	Iran	V0X 1C3
744	Illinois	FK7 7RP
745	Illinois	T0A 0K0
746	Pennsylvania	RH20 3EU
747	Russia	SGH 3N8
748	South Africa	EC1N 7TJ
749	India	M9L 2K6
750	California	NP23 6LW

```
select * from cus_info
```

CUSTOMER ID	CONTACT ID	ADDRESS ID
201	600	701
202	601	702
203	602	703
204	603	704
205	604	705
206	605	706
207	606	707
208	607	708
209	608	709
210	609	710
211	610	711
212	611	712
213	612	713
214	613	714
215	614	715
216	615	716
217	616	717
218	617	718
219	618	719
220	619	720
221	620	721
222	621	722
223	622	723
224	623	724
225	624	725
226	625	726
227	626	727
228	627	728
229	628	729
230	629	730
231	630	731
232	631	732
233	632	733
234	633	734
235	634	735
236	635	736
237	636	737
238	637	738
239	638	739
240	639	740
241	640	741
242	641	742
243	642	743
244	643	744
245	644	745
246	645	746
247	646	747
248	647	748
249	648	749
250	649	750

```
select * from room
```

ROOM ID	HOTEL ID	ROOM TYPE	PRICE	CAPACITY
1101	101	Deluxe	120	2
1102	102	Twin-double	170	4
1103	103	Twin	100	2
1104	104	Duplex	190	2
1105	105	Cabana	150	1
1106	106	Studio	140	2
1107	107	Lanai	160	1
1108	108	Suite	195	2
1109	109	Sico	180	2
1110	110	Studio	140	2
1111	111	Deluxe	120	2
1112	112	Cabana	150	1
1113	113	Duplex	200	2
1114	114	Twin	110	2
1115	115	Lanai	150	1
1116	111	Sico	170	2
1117	112	Studio	160	2
1118	113	Twin-double	180	4
1119	114	Deluxe	130	2
1120	115	Twin	110	2
1121	101	Cabana	140	1
1122	102	Studio	150	2
1123	103	Lanai	160	1
1124	104	Suite	190	2
1125	105	Duplex	185	2
1126	106	Twin-double	185	4
1127	107	Suite	195	2
1128	108	Deluxe	135	2
1129	101	Studio	130	2
1130	109	Lanai	165	1
1131	110	Sico	180	2
1132	111	Twin	100	2
1133	112	Deluxe	125	2
1134	113	Suite	190	2
1135	114	Cabana	155	1
1136	115	Duplex	195	2
1137	101	Twin	110	2
1138	102	Deluxe	135	2
1139	103	Twin-double	175	4
1140	104	Sico	180	2
1141	105	Twin	110	2
1142	106	Cabana	150	1
1143	107	Suite	190	2
1144	108	Sico	170	2
1145	109	Cabana	170	1
1146	110	Lanai	170	1
1147	111	Deluxe	135	2
1148	112	Twin	115	2
1149	113	Sico	175	2
1150	114	Twin-double	190	4

```
select * from reservation
```

CUSTOMER ID	ROOM ID	PAYMENT ID
201	1101	1001
202	1102	1002
203	1103	1003
204	1104	1004
205	1105	1005
206	1106	1006
207	1107	1007
208	1108	1008
209	1109	1009
210	1110	1010
211	1111	1011
212	1112	1012
213	1113	1013
214	1114	1014
215	1115	1015
216	1116	1016
217	1117	1017
218	1118	1018
219	1119	1019
220	1120	1020
221	1121	1021
222	1122	1022
223	1123	1023
224	1124	1024
225	1125	1025
226	1126	1026
227	1127	1027
228	1128	1028
229	1129	1029
230	1130	1030
231	1131	1031
232	1132	1032
233	1133	1033
234	1134	1034
235	1135	1035
236	1136	1036
237	1137	1037
238	1138	1038
239	1139	1039
240	1140	1040
241	1141	1041
242	1142	1042
243	1143	1043
244	1144	1044
245	1145	1045
246	1146	1046
247	1147	1047
248	1148	1048
249	1149	1049
250	1150	1050

```
select * from payment
```

PAYMENT_ID	METHOD	PAY_DATE	PAY_AMOUNT
1001	Credit Card	08-SEP-19	240
1002	Credit Card	14-SEP-19	200
1003	Direct Billing	19-SEP-19	230
1004	Direct Billing	28-DEC-19	300
1005	Credit Card	09-JAN-20	250
1006	Credit Card	12-FEB-20	240
1007	Direct Billing	06-JUN-20	250
1008	Credit Card	25-JUL-20	270
1009	Direct Billing	24-SEP-20	280
1010	Direct Billing	16-OCT-20	300
1011	Direct Billing	14-MAR-21	270
1012	Direct Billing	14-MAY-21	200
1013	Credit Card	20-JUN-21	250
1014	Direct Billing	07-JUL-21	260
1015	Credit Card	02-AUG-21	280
1016	Direct Billing	18-AUG-21	300
1017	Credit Card	23-AUG-21	250
1018	Credit Card	06-SEP-21	290
1019	Direct Billing	27-NOV-21	300
1020	Credit Card	01-DEC-21	260
1021	Direct Billing	12-DEC-21	200
1022	Direct Billing	24-JAN-22	250
1023	Cash	19-FEB-22	200
1024	Cash	25-FEB-22	280
1025	Credit Card	12-APR-22	200
1026	Cash	14-MAY-19	200
1027	Cash	08-JUN-19	240
1028	Credit Card	20-AUG-19	300
1029	Cash	31-OCT-19	350
1030	Cash	05-NOV-19	350
1031	Credit Card	08-NOV-19	300
1032	Cash	18-NOV-19	300
1033	Cash	07-FEB-20	250
1034	Credit Card	09-FEB-20	256
1035	Cash	20-MAR-20	300
1036	Credit Card	12-APR-20	350
1037	Direct Billing	17-APR-20	250
1038	Cash	29-JUN-20	200
1039	Credit Card	13-JUL-20	200
1040	Credit Card	15-JUL-20	200
1041	Credit Card	22-SEP-20	200
1042	Cash	23-SEP-20	200
1043	Credit Card	17-DEC-20	200
1044	Cash	10-JAN-21	250
1045	Credit Card	21-JAN-21	300
1046	Cash	04-MAR-21	250
1047	Credit Card	28-APR-21	240
1048	Cash	05-MAY-21	250
1049	Credit Card	06-MAY-21	230
1050	Direct Billing	12-JAN-22	200



---

# PL/SQL CODE

## -> Cursor that prints manager along with their respective employees

```
declare

cursor c1 is select manager.first_name, manager.last_name , employee.first_name ,
employee.last_name

from employee, manager

where (employee.employee_id , manager.manager_id) in ( select
manage_employee.employee_id, manage_employee.manager_id from manage_employee);

mfname manager.first_name%type;
efname employee.first_name%type;
mlname manager.last_name%type;
elname employee.last_name%type;

begin

open c1;

loop

    fetch c1 into mfname,mlname, efname, elname;

    exit when c1%notfound;

    dbms_output.put_line(mfname || ' ' || mlname || ' manages ' || efname || ' ' || elname);

end loop;

close c1;

end;
```

---

## Output

```
Statement processed.  
Genna Thrower manages Chloe Hoffman  
Pinch Falk manages Amber Ortiz  
Erwin Munch manages Amber Smith  
Faber Kindred manages Nathaniel Waller  
Verena Solomon manages Cynthia Singh  
Jo Brashears manages Rachel Williams  
Moss Harter manages Roger Gonzalez  
Jocasta Hanna manages David Clayton  
Kismet Brashears manages Amanda Henry  
Phylisia Spitler manages Veronica Mooney  
Navdeep Kuiper manages Cynthia Newton  
Franklin Matula manages Joseph Shelton  
Campbell Aldrich manages Nathan Brown  
Naveen Overturf manages Terry Sanders  
Nitara Banda manages Joshua Jimenez  
Navdeep Kuiper manages Edward Taylor  
Franklin Matula manages Anna Phillips  
Campbell Aldrich manages Cassandra Stephens  
Genna Thrower manages Meghan Wall  
Jo Brashears manages Jennifer Becker
```

---

**-> Cursor that selects the employees' first name and last name having a particular employee ID.**

```
declare

cursor c2(d number) is select first_name, last_name from customer where customer_id=d;

rec c2%rowtype;

begin

open c2(215);

loop

fetch c2 into rec;

exit when c2%notfound;

dbms_output.put_line('Name: '||rec.first_name|| ' '||rec.last_name);

end loop;

close c2;

end;
```

**Output=**

```
Statement processed.
Name: Jerry  Martin
```

---

**-> Procedure to delete the record of a customer from the reservation table.**

```
declare  
  
cno number(10);  
  
procedure p1(id in number) is  
  
begin  
  
delete from reservation where customer_id=id;  
  
end;  
  
  
begin  
  
cno:=210;  
  
p1(cno);  
  
end;  
  
select * from reservation;
```

Output=

CUSTOMER_ID	ROOM_ID	PAYMENT_ID
201	1101	1001
202	1102	1002
203	1103	1003
204	1104	1004
205	1105	1005
206	1106	1006
207	1107	1007
208	1108	1008
209	1109	1009
211	1111	1011
212	1112	1012
213	1113	1013
214	1114	1014
215	1115	1015
216	1116	1016
217	1117	1017
218	1118	1018
219	1119	1019
220	1120	1020
221	1121	1021
222	1122	1022
223	1123	1023
224	1124	1024
225	1125	1025
226	1126	1026
227	1127	1027
228	1128	1028
229	1129	1029
230	1130	1030
231	1131	1031
232	1132	1032
233	1133	1033
234	1134	1034
235	1135	1035
236	1136	1036
237	1137	1037
238	1138	1038
239	1139	1039
240	1140	1040
241	1141	1041
242	1142	1042
243	1143	1043
244	1144	1044
245	1145	1045
246	1146	1046
247	1147	1047
248	1148	1048
249	1149	1049
250	1150	1050

**-> Trigger to ensure that the payment made by the customer is not less than the required amount.**

```
CREATE OR REPLACE TRIGGER pay_check
BEFORE INSERT OR UPDATE OF pay_amount ON payment FOR EACH ROW

declare

price_room number(10);

BEGIN

select price into price_room from room where room_id in (select room_id from reservation
where payment_id= :new.payment_id);

IF :NEW.pay_amount < price_room THEN

RAISE_APPLICATION_ERROR(-20000,'INSUFFICIENT PAYMENT');

else

dbms_output.put_line('Updated Successfully!');

END IF;

END;
```

```
update payment set pay_amount= 100 where payment_id= 1001;
```

```
ORA-20000: INSUFFICIENT PAYMENT ORA-06512: at "SQL_ZJHNQJ5BKTWGEHUTEHAOEBFVH.PAY_CHECK", line 6
ORA-06512: at "SYS.DBMS_SQL", line 1721
```

```
update payment set pay_amount= 300 where payment_id= 1001;
```

```
1 row(s) updated.
Updated Successfully!
```

**-> Function (with Exception Handling) that accepts employee name as input and returns his/her email address.**

```

declare
email emp_contact.email%type;
employeeid employee.employee_id%type;
name employee.first_name%type;
function findemail (name in varchar)
return varchar is
begin
    select employee_id into employeeid from employee where lower(first_name) = lower(name);

    select email into email from emp_contact where contact_id= (select contact_id from
emp_info where employee_id= employeeid);

    return email;
end;

begin
name:= 'joseph';
email:= findemail(name);
dbms_output.put_line('Email is ' || email);
exception
when no_data_found then
    dbms_output.put_line('No such employee exists');
end;
```

---

## Output=>

### *If employee exists*

---

```
Statement processed.  
Email is shelton@okra.org
```

### *If employee does not exist*

---

```
Statement processed.  
No such employee exists
```