THE CASINO

DATABASE DESIGN PROJECT

BY
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Entities

- Employee

- Employee_progress

- Casino_card

- Customer

- Offer

- Comp

- Slot_machine

- Slot_machine_record

Entities

- Slot_machine_games

- Payout

- Printer

- Table

- Table_record

- Table_game_type

- Grid

- Security_position

- Bill_breaker

Entities & Attributes

Employee

➢ <u>Employee_no</u> → Primary Key

➢ SSN

➢ Name

➢ Address

➢ Phone

➢ First_salary

➢ Current_salary

DOB

Date_of_hire

Position

Experience

Rating

Entities & Attributes

Employee_progress

➤ <u>Progress_no</u> → Primary Key

➤ Starting_salary

➤ Ending_salary

➤ Raise_date

➤ Promotion_date

➤ position

Entities & Attributes

Customer

- Name
- Address
- SSN
- Phone
- DOB
- Gender
- <u>Customer_no</u> → Primary Key

Last_visit_date

Total_gamble_amount

Total_points

Balance

Entities & Attributes

Offer

➢ <u>Offer_no</u> → Primary Key

➢ Start_date

➢ Expiration_date

➢ Date_offer_accepted

➢ Date_offer_used

Comp

➢ <u>Comp_no</u> → Primary Key

➢ Cost

➢ Type

Entities & Attributes

Slot_machine

➢ Slot_machine_no➔ Primary Key

➢ Purchase_date

➢ Bought_from

➢ Manufacturer

➢ Cost

➢ Last_service_date

➢ Location

➢ Amount_set_in

Entities & Attributes

Slot_machine_record

➢ Record_no → Primary Key   Date/time_removed

➢ Money_inserted

➢ Money_emptied

➢ Coupons_inserted

➢ Coupons_emptied

➢ Coins_inserted

➢ Coins_emptied

Entities & Attributes

Slot_machine_games

➢ Slot_machine_game_no → Primary Key

➢ Date/time played

➢ Cash_won

➢ Points_added

Entities & Attributes

Payout

➢ <u>Payout_no</u>➔ Primary Key

➢ Type_no

➢ Description

➢ No_of_units_to_payout

Printer

➢ <u>Printer_no</u> ➔ Primary Key   Date/time_inserted

➢ How_much_paper_inserted   Date/time_removed

Entities & Attributes

Casino_card

➢ <u>Card_no</u> → Primary Key

➢ Issue_date

Table

➢ <u>Table_no</u> → Primary Key

➢ Location

➢ Type

Table_game_type

➢ <u>Type</u> → Primary Key

Entities & Attributes

Table_record

➤ <u>Table_record_no</u> ➔ Primary Key   Value_of_chips_closed_with

➤ Date/time_game_start   No_of_chips_closed_with

➤ Date/time_game_end   Cash_amount_started_with

➤ Open_date/time   Cash_amount_closed_with

➤ Close_date/time

➤ Value_of_chips_started_with

➤ No_of_chips_started_with

Entities & Attributes

Grid

➤ <u>Grid_no</u> → Primary Key

➤ Floor

➤ Distance_from_north_wall

➤ Distance_from_south_wall

➤ Distance_from_east_wall

➤ Distance_from_west_wall

➤ Landmark

Entities & Attributes

Security_position

➢ <u>Position_no</u> →Primary Key

➢ Distance_from_north_wall

➢ Distance_from_south_wall

➢ Distance_from_east_wall

➢ Distance_from_west_wall

➢ Landmark

Bill_breaker

➢ <u>Bill_breaker_no</u> → Primary Key

Relationships

Sl. No.	Entity Name	Entity Name	Relationship Name	Mapping	Relationship Data
1	Employee	Employee_progress	EER	1:M	None
2	Employee	Table_game_type	ETGT	M:N	None
3	Employee	Table_record	ETR	M:N	Start date/time End date/time
4	Employee	Security_position	ESP	M:N	Start date/time End date/time
5	Employee	Bill_breaker	EBB	M:N	None
6	Customer	Casino_card	CCC	1:1	None
7	Customer	Offer	CO	M:N	Sent date/time Accepted date/time Used date/time

Relationships

Sl. No.	Entity Name	Entity Name	Relationship Name	Mapping	Relationship Data
8	Customer	Slot_machine_games	CSMG	1:M	Cash won Points won
9	Customer	Table_record	CTR	1:M	Coins won Coins value
10	Offer	Comp	OC	M:N	None
11	Slot_machine	Slot_machine_games	SMSMG	1:M	None
12	Slot_machine	Slot_machine_record	SMSMR	1:M	None
13	Slot_machine	Printer	SMP	M:1	Paper added date/time Paper removed date/time
14	Slot_machine	Grid	SMG	M:1	None

Relationships

Sl. No.	Entity Name	Entity Name	Relationship Name	Mapping	Relationship Data
15	Slot_machine_games	Payout	SMGP	M:1	None
16	Table	Table_game_type	TTGT	M:1	None
17	Table	Grid	TG	M:1	None
18	Table	Table_record	TTR	1:M	None
19	Table_game_type	Table_record	TGTTR	1:M	None
20	Grid	Security_position	GSP	M:N	None
21	Employee	Employee	Cashier	M:N	Cashier number Grid landmark

Entity Relationship Diagram
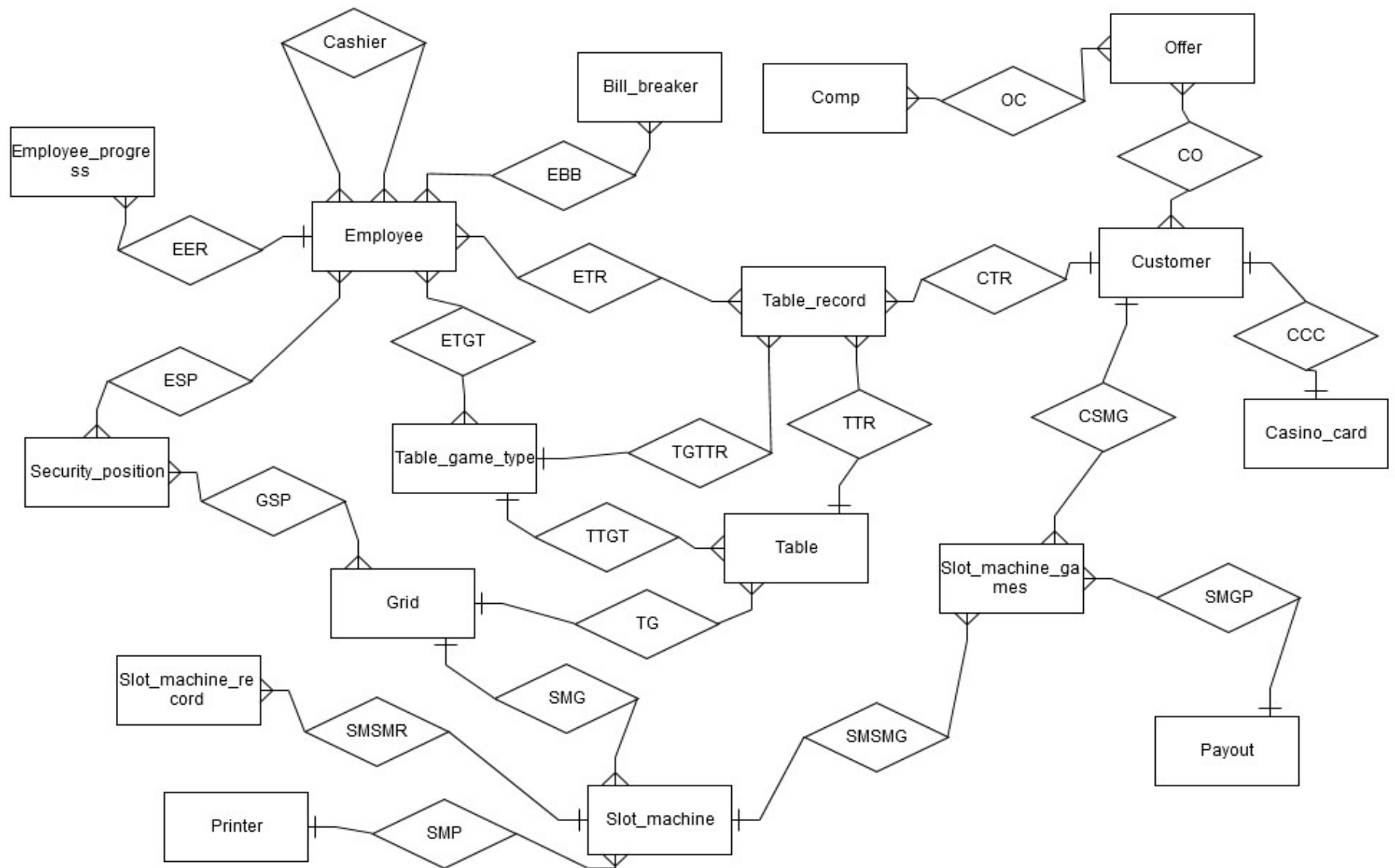
Tables

Primary Key
Foreign Key

Employee

Employee_no
SSN
Name
Address
Phone
First_salary
Current_salary
DOB
Date_of_hire
Position
Experience
Rating

Employee_progress

Progress_no
Starting_salary
Ending_salary
Raise_date
Promotion_date
Position
Employee_no

Tables

Primary Key
Foreign Key

Customer

Name
Address
SSN
Phone
DOB
Gender
Customer_no
Last_visit_date
Total_gamble_amount
Total_points
Balance

Offer

Offer_no
Start_date
Expiration_date
Date_offer_accepted
Date_offer_used

Tables

Comp

Comp_no
Cost
Type

Slot_machine

Slot_machine_no
Purchase_date
Bought_from
Manufacturer
Cost
Last_service_date
Location
Amount_set_in
Grid_no
Printer_no

Tables

Primary Key
Foreign Key

Slot_machine_record

Record_no
Money_inserted
Money_emptied
Coupons_inserted
Coupons_emptied
Coins_inserted
Coins_emptied
Date/time_removed
Slot_machine_no

Slot_machine_games

Slot_machine_game_no
Date/time played
Cash_won
Points_added
Customer_no
Slot_machine_no
Payout_no

Tables

Payout

Payout_no
Type_no
Description
No_of_units_to_payout

Printer

Printer_no
How_much_paper_inserted
Date/time_inserted
Date/time_removed
Customer_no
Slot_machine_no
Payout_no

Casino_card

Casino_card_no
Issue_date

Tables

Primary Key
Foreign Key

Table

Table_no
Location
Type
Table_game_type
Grid_no

Bill_breaker

Bill_breaker_no

Table_game_type

Type

Table_record

Table_record
Table_record_no
Date/time_game_start
Date/time_game_end
Open_date/time
Close_date/time
Value_of_chips_started_with
No_of_chips_started_with
Value_of_chips_closed_with
No_of_chips_closed_with
Cash_amount_started_with
Cash_amount_closed_with
Customer_no
Table_no
Table_game_type

Grid

Grid
Grid_no
Floor
Distance_from_north_wall
Distance_from_south_wall
Distance_from_east_wall
Distance_from_west_wall
Landmark

Primary Key
Foreign Key

Tables

Primary Key
Foreign Key

Security_positions

Position_no
Distance_from_north_wall
Distance_from_south_wall
Distance_from_east_wall
Distance_from_west_wall
Landmark

ETGT

Employee_no
Table_game_type_no

ETR

Employee_no
Record_no
Start date/time
End date/time

Tables

Primary Key
Foreign Key

ESP

Employee_no
Position_no
Start date/time
End date/time

EBB

Employee_no
Bill_breaker_no

CO(Cust-Offer)

Customer_no
Offer_no
Sent date/time
Accepted date/time
Used date/time

OC(Offer-Comp)

Offer_no
Comp_no

Tables

GSP

Grid_no
Position_no

EE

Employee_no
Cashier_no
Grid_no
Landmark

Transactions

Transaction Name and Description	Frequency	Entities Involved	Relationship Mapping	Read/ Write	Batch/Online
Employee progress(Raise in salary with/without promotions)	600/week	Employee, Employee_ progress	EER (1:M)	Write	Online
Fire and hire of employees	100/week	Employee	None	Write	Online
Address Change for customers	10000/month	Customer	None	Write	Online
Adding new customers	3000/day	Customer	None	Write	Online

Transactions

Transaction Name and Description	Frequency	Entities Involved	Relationship Mapping	Read/Write	Batch/Online
Sending offers for the customers who has 10000	5000/day	Customer, Offer	CO (M:N)	Read and Write	Online
Special offer for customer who has not visited for over 6months	1/month	Customer, Offer	CO (M:N)	Read and Write	Online
Replacing slot machines with new ones	200/week	Slot machine	None	Write	Online
How much money and coupons removed from each slot.	5/day	Slot machine	None	Read	Online

Transactions

Transaction Name and Description	Frequency	Entities Involved	Relationship Mapping	Read/ Write	Batch/Online
Fire and hire dealers based on the rating given by the customer and manager of gambling	50/month	Employee	None	Read and Write	Online

THANK YOU