Database Design Proposal

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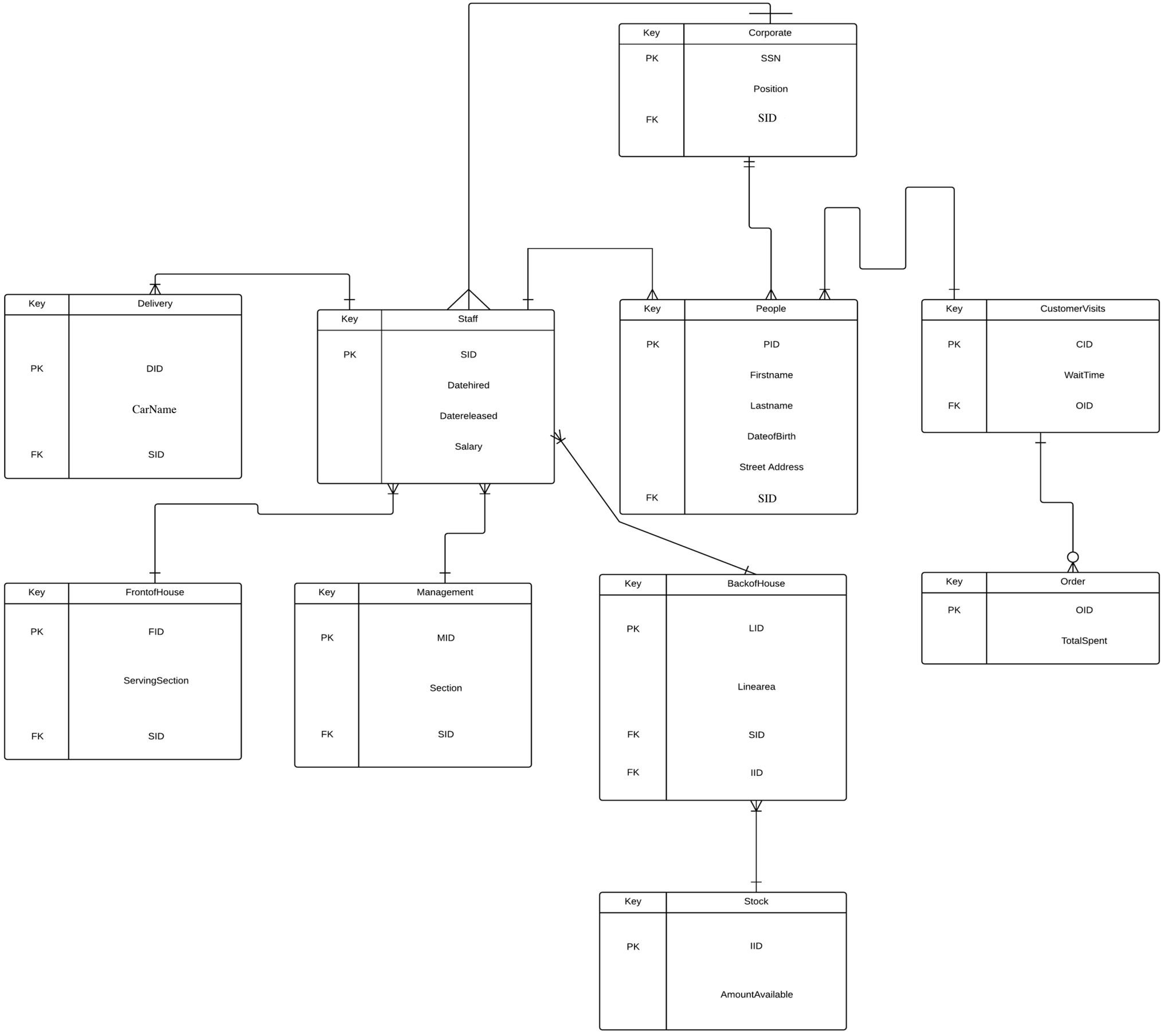
Executive Summary

This document outlines the structure and entities involved in the design and implementation of owning a restaurant. The database organizes the restaurant into categories, which simplifies and assists employee's on what tasks need to be completed. Corporate will be able to see all new hires, both in the front and the back of the restaurant, as well as all their information, tasks, and the new employee's position.


Key
Corporate
PK
SSN
Position
FK
SID
Key
Delivery
PK
DID
CarName
FK
SID
Key
Staff
PK
SID
Datehired
Datereleased
Salary
Key
People
PK
PID
Firstname
Lastname
DateofBirth
Street Address
FK
SID
Key
CustomerVisits
PK
CID
WaitTime
FK
OID
Key
FrontofHouse
PK
FID
ServingSection
FK
SID
Key
Management
PK
MID
Section
FK
SID
Key
BackofHouse
PK
LID
Linearea
FK
SID
FK
IID
Key
Order
PK
OID
TotalSpent
Key
Stock
PK
IID
AmountAvailable

Table

Corporate

Purpose:
This table is created to store corporate positions along with the salary.

```
CREATE TABLE corporate (
      SSN int NOT NULL,
      DateHired date,
      DateReleased date,
      SID int NOT NULL,
  PRIMARY KEY(SSN),
  FOREIGN KEY(SID) references staff(SID)
);
```

Functional Dependencies
SSN -> DateHired, DateReleased, SID

Corporate Sample Data

	SSN integer	DateHired Timestamp without time zone	DateReleased Timestamp without time zone	SID integer
1	480466669	2013-01-12		1
2	501145494	2014-11-30		2
3	544900941	2014-12-08		3
4	449825815	2015-01-13		4
5	530719531	2015-10-03		5
6	127849320	2015-10-15		6
7	121309512	2015-11-03		7
8	901238410	2016-02-19		8

Table

Staff

Purpose:
This table is created to keep track of when employees are hired or let go.

```
CREATE TABLE staff (
      SID int NOT NULL,
      DateHired date,
      DataReleased date,
      Salary int NOT NULL,
  PRIMARY KEY(SID)
);
```

Functional Dependencies
SID -> DateHired, DateReleased, Salary

Staff Sample Data

	SID integer	DateHired Timestamp without time zone	DateReleased Timestamp without time zone	Salary integer
1	1	2013-01-12		195000
2	2	2014-11-30		127000
3	3	2014-12-08		101000
4	4	2015-01-13		94000
5	5	2015-10-03		142000
6	6	2015-10-15		42000
7	7	2015-11-03		57000
8	8	2016-02-19		30000

Table

People

Purpose:
This table is created to list basic information about everyone who is employed at the company.

```
CREATE TABLE people (
      PID int NOT NULL,
      Firstname text,
      Lastname text,
      DateofBirth date,
      StreetAddress text,
      SID int NOT NULL,
  PRIMARY KEY(PID),
  FOREIGN KEY(SID) references staff(SID)
);
```

Functional Dependencies
PID -> Firstname, Lastname, DateofBirth, StreetAddress, SID

People Sample Data

	PID integer	Firstname text	Lastname text	DateofBirth date	StreetAddress text	SID integer
1	1001	Charles	Hersheberg	1964-11-21	291 Hunting Street	1
2	1002	Nick	Barnett	1977-12-08	31 Main Street	2
3	1003	Joe	Shmoe	1968-10-21	38 Brooklyn Blvd	3
4	1004	Amanda	Mctigue	1979-03-05	932 Fulton Street	4
5	1005	Sherla	Jermain	1981-12-06	54 Fuller Court	5
6	1006	Jerald	Bronze	1985-05-16	83 Bear Oak Lane	6
7	1007	Mason	Shaw	1992-06-18	339 Rock Oak Road	7
8	1008	Kayla	Marhefka	1987-03-12	1 Hampton Street	8
9	1009	Brian	Monahan	1990-04-20	301 Eisenhower Lane	9
10	1010	Carla	Sofia	1997-02-01	194 Red Oak Road	10
11	1011	Vlad	Donavan	1981-01-02	35 Pin Oak Road	11
12	1012	Ryan	Neumann	1995-11-30	38 Scarlet Drive	12

Table

CustomerVisits

Purpose:
This table was created to keep track of every customer, how long their estimated wait time is, as well as the order identification number.

```
CREATE TABLE customerVisits (
      CID int NOT NULL,
      WaitTime time NOT NULL,
      OID int NOT NULL,
  PRIMARY KEY(CID),
  FOREIGN KEY(OID) references order(OID)
);
```

Functional Dependencies
CID -> WaitTime, OID

CustomerVisits Sample Data

	CID integer	WaitTime time without timezone	OID integer
1	103213	11:15:32	101
2	103214	12:32:41	102
3	103215	12:47:51	103
4	103216	13:01:41	104
5	103217	13:16:18	105
6	103218	13:36:53	106
7	103219	14:09:10	107
8	103220	14:51:39	108

Table

Delivery

Purpose:
This table keeps track of all outgoing orders and which car is delivering.

```
CREATE TABLE delivery (
      DID int NOT NULL,
      CarName text,
      SID int NOT NULL,
  PRIMARY KEY(CID),
  FOREIGN KEY(SID) references staff(SID)
);
```

Functional Dependencies
DID -> CarName, SID

Delivery Sample Data

	DID integer	CarName text	SID integer
1	1	Nissan	12
2	2	Chevy	8
3	3	Chevy	10
4	4	Chevy	12
5	5	Nissan	10
6	6	Nissan	9
7	7	Nissan	8
8	8	Chevy	10

Table

FrontofHouse

Purpose:
This table is created for all waiters or waitresses, signaling which tables they will be serving and it what section.

```
CREATE TABLE frontofHouse (
      FID int NOT NULL,
      ServingSection int NOT NULL,
      SID int NOT NULL,
  PRIMARY KEY(FID),
  FOREIGN KEY(SID) references staff(SID)
);
```

Functional Dependencies
FID -> ServingSection, SID

FrontofHouse Sample Data

	FID integer	ServingSection integer	SID integer
1	1	10	5
2	2	12	6
3	3	15	7
4	4	6	8

Table

BackofHouse

Purpose:
This table is created for everything that goes on behind the kitchen doors of restaurant(stock, chefs, and assembly).

```
CREATE TABLE backofHouse (
        LID int NOT NULL,
        LineArea text NOT NULL,
        SID int NOT NULL,
        IID int NOT NULL,
   PRIMARY KEY(LID),
   FOREIGN KEY(SID) references staff(SID),
   FOREIGN KEY(IID) references stock(IID)
);
```

Functional Dependencies
LID -> LineArea, SID, IID

BackofHouse Sample Data

	LID integer	LineArea text	SID integer	IID integer
1	1	10	1	50
2	2	12	2	32
3	3	15	3	41
4	4	6	4	12

Table

Management

Purpose:
This table was created to keep track of all managers at the location. The section will designate who is in charge of what, along with what administrative rights come with that section.

```
CREATE TABLE management (
        MID int NOT NULL,
        section text,
        SID int NOT NULL,
    PRIMARY KEY(MID),
    FOREIGN KEY(SID) references staff(SID)
);
```

Management Sample Data

	MID integer	Section text	SID integer
1	1	Management	1
2	2	Front of House	2
3	3	Back of House	3
4	4	Stock/Delivery	4

Table

Order

Purpose:
This table was created to keep track of orders and order costs. When a customer places an order, it will take the OID provided, match it with the OID in the order table, and get the corresponding order total(TotalSpent).

```
CREATE TABLE order (
      OID int NOT NULL,
      TotalSpent float(6,2),
  PRIMARY KEY(OID)
);
```

Order Sample Data

	OID integer	TotalSpent float(6,2)
1	101	121.42
2	102	75.56
3	103	24.98
4	104	309.61