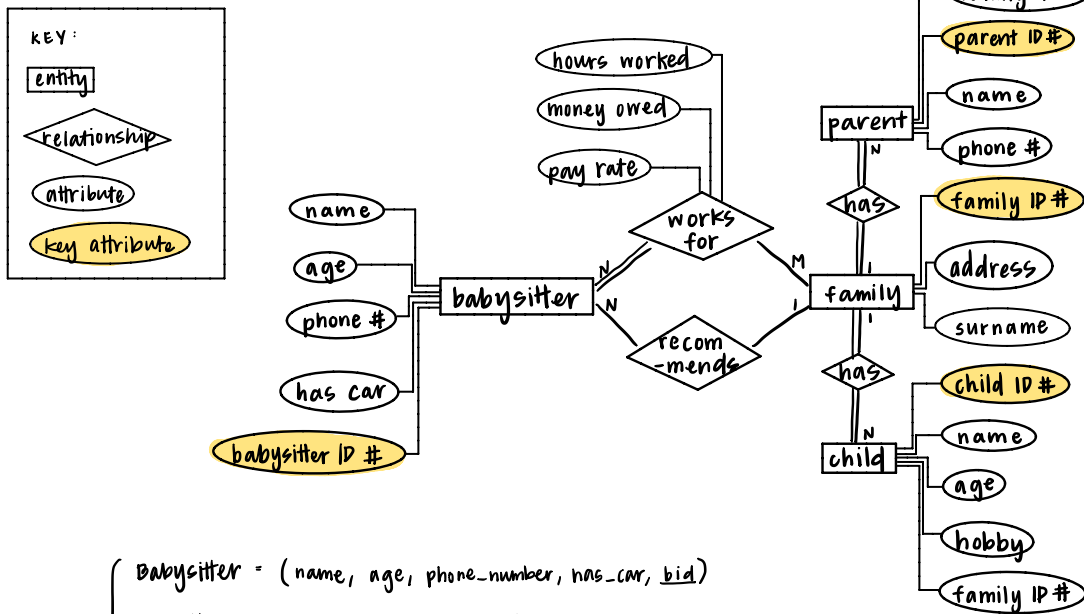


Personal Database Application Step 2

ENTITY - RELATIONSHIP DIAGRAM:



Relational schema

- Babysitter = (name, age, phone-number, has-car, bid)
- Family = (address, fid, surname)
- Parent = (name, phone-number, pid, fid)
- Child = (name, age, hobby, cid, fid)
- works-for = (bid, fid, pay-rate, hours-worked, money-owed)

```
CREATE TABLE babysitter (name VARCHAR(40), age INT, phone-number BIGINT, has-car BOOLEAN, bid INT, PRIMARY KEY (bid));
```

```
CREATE TABLE family (surname VARCHAR(30), address VARCHAR(255), fid INT, PRIMARY KEY (fid));
```

```
CREATE TABLE parent (name VARCHAR(20), phone-number BIGINT, pid INT, fid INT,
    PRIMARY KEY (pid), FOREIGN KEY (fid) REFERENCES family (fid));
```

```
CREATE TABLE child (name VARCHAR(20), age INT, hobby VARCHAR(40), cid INT, fid INT,
    PRIMARY KEY (cid), FOREIGN KEY (fid) REFERENCES family (fid));
```

```
CREATE TABLE works_for (bid INT, fid INT, pay-rate DECIMAL(5,2), hours-worked INT, money-owed DECIMAL(7,2),
    PRIMARY KEY (bid, fid),
    FOREIGN KEY (bid) REFERENCES babysitter (bid),
    FOREIGN KEY (fid) REFERENCES family (fid));
```

```
mysql> CREATE DATABASE babysitterDB;
Query OK, 1 row affected (0.00 sec)
```

```
mysql> USE babysitterDB;
Database changed
```

```
mysql> CREATE TABLE babysitter (name VARCHAR(40), age INT,
phone_number BIGINT, has_car BOOLEAN, bid INT, PRIMARY KEY (bid));
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> CREATE TABLE family (surname VARCHAR(30), address VARCHAR(255),
fid INT, PRIMARY KEY (fid));
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> CREATE TABLE parent (name VARCHAR(20), phone_number BIGINT, pid
INT, fid INT, PRIMARY KEY (pid), FOREIGN KEY (fid) REFERENCES
family(fid));
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> CREATE TABLE child (name VARCHAR(20), age INT, hobby
VARCHAR(40), cid INT, fid INT, PRIMARY KEY (cid), FOREIGN KEY (fid)
REFERENCES family(fid));
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> CREATE TABLE works_for (bid INT, fid INT, pay_rate
DECIMAL(5,2), hours_worked INT, money_owed DECIMAL(7,2), PRIMARY KEY
(bid, fid), FOREIGN KEY (bid) REFERENCES babysitter(bid), FOREIGN KEY
(fid) REFERENCES family(fid));
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> DESCRIBE babysitter;
```

Field	Type	Null	Key	Default	Extra
name	varchar(40)	YES		NULL	
age	int(11)	YES		NULL	
phone_number	bigint(20)	YES		NULL	
has_car	tinyint(1)	YES		NULL	
bid	int(11)	NO	PRI	NULL	

```
5 rows in set (0.09 sec)
```

```
mysql> DESCRIBE family;
```

Field	Type	Null	Key	Default	Extra
surname	varchar(30)	YES		NULL	
address	varchar(255)	YES		NULL	
fid	int(11)	NO	PRI	NULL	

```
3 rows in set (0.00 sec)
```

```
mysql> DESCRIBE parent;
```

Field	Type	Null	Key	Default	Extra
name	varchar(20)	YES		NULL	
phone_number	bigint(20)	YES		NULL	
pid	int(11)	NO	PRI	NULL	
fid	int(11)	YES	MUL	NULL	

```
4 rows in set (0.01 sec)
```

```
mysql> DESCRIBE child;
```

Field	Type	Null	Key	Default	Extra
name	varchar(20)	YES		NULL	
age	int(11)	YES		NULL	
hobby	varchar(40)	YES		NULL	
cid	int(11)	NO	PRI	NULL	
fid	int(11)	YES	MUL	NULL	

```
5 rows in set (0.01 sec)
```

```
mysql> DESCRIBE works_for;
```

Field	Type	Null	Key	Default	Extra
bid	int(11)	NO	PRI	NULL	
fid	int(11)	NO	PRI	NULL	
pay_rate	decimal(5,2)	YES		NULL	
hours_worked	int(11)	YES		NULL	
money_owed	decimal(7,2)	YES		NULL	

```
5 rows in set (0.00 sec)
```

```
mysql> INSERT INTO babysitter VALUES ('Jane Andrews', 19, 1234567890, TRUE, 1);
```

```
Query OK, 1 row affected (0.04 sec)
```

```
mysql> INSERT INTO babysitter VALUES ('Tony Smith', 18, 3031239852, FALSE, 2);
```

```
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO babysitter VALUES ('Annie Jones', 21, 2138769890, FALSE, 3);
```

```
Query OK, 1 row affected (0.00 sec)
```

```
mysql> INSERT INTO babysitter VALUES ('Melanie Meyers', 16, 6517382945, TRUE, 4);
```

Query OK, 1 row affected (0.01 sec)

```
mysql> INSERT INTO babysitter VALUES ('Harley Davidson', 20,
6123893928, TRUE, 5);
```

Query OK, 1 row affected (0.00 sec)

```
mysql> SELECT * FROM babysitter;
```

name	age	phone_number	has_car	bid
Jane Andrews	19	1234567890	1	1
Tony Smith	18	3031239852	0	2
Annie Jones	21	2138769890	0	3
Melanie Meyers	16	6517382945	1	4
Harley Davidson	20	6123893928	1	5

5 rows in set (0.00 sec)

```
mysql>
```