

# Group 3 Submission Document

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[GitHub repo we used](#)

## Deliverable 1

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**Place all your your group members names and email contacts in your assignment.**

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**Note in your submission if you did this Deliverable by Deliverable or read the complete assignment prior to starting.**

We read the entire assignment prior to starting

## Deliverable 2

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**Show the commands you used to build your table(s).**

```
CREATE TABLE Entity_Table (  
  Entity_ID INT NOT NULL AUTO_INCREMENT,  
  Street_Name VARCHAR(50) NOT NULL,  
  Zip varchar(5) NOT NULL,  
  City varchar(128) NOT NULL,  
  StateName char(2) NOT NULL,  
  EntityName varchar(128) NOT NULL,  
  PRIMARY KEY (Entity_ID)  
);  
  
CREATE TABLE Receipt_Table (  
  Transaction_Number INT NOT NULL AUTO_INCREMENT,  
  Seller_Key INT NOT NULL,  
  Buyer_Key INT NOT NULL,
```

```
Picture BLOB,  
Zip varchar(5) NOT NULL,  
StateName char(2) NOT NULL,  
Number_Of_Items INT NOT NULL,  
Total_Sales decimal(15, 2) NOT NULL,  
Highest_Price decimal(15, 2) NOT NULL,  
Lowest_Price decimal(15, 2) NOT NULL,  
PRIMARY KEY (Transaction_Number),  
FOREIGN KEY (Seller_Key) REFERENCES Entity_Table(Entity_ID),  
FOREIGN KEY (Buyer_Key) REFERENCES Entity_Table(Entity_ID)  
);  
  
CREATE TABLE Telephone_Numbers (  
    Telephone_Number varchar(32) NOT NULL,  
    Entity_ID INT NOT NULL,  
    PRIMARY KEY (Telephone_Number),  
    FOREIGN KEY (Entity_ID) REFERENCES Entity_Table(Entity_ID)  
);
```

## Deliverable 3

---

**Show the commands you used to load your table(s).**

```
INSERT INTO Entity_Table(Entity_ID, Street_Name, Zip, City, StateName, EntityName)  
VALUES  
(3, '82 Beaver St Room 1301', '10005', 'New York', 'NY', 'John Wick' );  
  
INSERT INTO Entity_Table(Entity_ID, Street_Name, Zip, City, StateName, EntityName)  
VALUES  
(40, '4081 Finn Way', '40503', 'Lexington', 'KY', 'J. Alexander's Restaurant' );
```

**Show two of the commands you used to load a receipt entity data into your table(s).**

```
INSERT INTO Receipt_Table(Transaction_Number, Seller_Key, Buyer_Key, Picture, Zip, Sta  
VALUES  
(1, 13, 1, NULL, '40503', 'KY', 25, 5, 5, 5);  
  
INSERT INTO Receipt_Table(Transaction_Number, Seller_Key, Buyer_Key, Picture, Zip, Sta  
VALUES  
(2, 33, 31, NULL, '40504', 'KY', 30, 5, 6.99, 3.49),
```

## Deliverable 4

run `show tables;` from your database prompt after connecting to your database.

```
+-----+
| Tables_in_jtho264 |
+-----+
| Entity_Table      |
| Receipt_Table     |
| Telephone_Numbers |
+-----+
```

## Deliverable 5

run `select * from ;` where is the name of the table(s) you created in your database.

```
SELECT * from Entity_Table;
```

```
+-----+-----+-----+-----+
| Entity_ID | Street_Name                               | Zip   | City   |
+-----+-----+-----+-----+
|          1 | 300 Rose Street Room 102 Hardyman Building | 40506 | Lexington |
|          2 | 301 Hilltop Avenue, Room 102              | 40506 | Lexington |
|          3 | 82 Beaver St Room 1301                    | 10005 | New York  |
|          4 | 200 Park Avenue Penthouse                 | 10001 | New York  |
|          5 | 117A Bleecker Street                      | 10001 | New York  |
|          6 | 200 Park Avenue Apartment 221              | 10001 | New York  |
|          7 | #1 Avenue of Champions                    | 40506 | Lexington |
|          8 | 200 Park Avenue                           | 40507 | Lexington |
|          9 | 1 Dead End Row Room 200                    | 12347 | Dallas    |
|         10 | 1 Dead End Row Room 200                    | 12347 | Dallas    |
|         11 | 2299 Richmond Rd                          | 40502 | Lexington |
|         12 | 471 Rose St                               | 40508 | Lexington |
|         13 | 150 W Lowry Ln #190                       | 40503 | Lexington |
|         14 | 2161 Paul Jones Way                       | 40509 | Lexington |
|         15 | 1180 Seven Seas Dr                       | 32830 | Lake Buena Vista |
|         16 | 500 W New Circle Rd                       | 40511 | Lexington |
|         17 | 123 NotAReal St                           | 40502 | Lexington |
|         18 | 1600 Pennsylvania Ave NW                  | 20500 | Washington |
|         19 | 1400 Defense Pentagon                      | 20301 | Washington |
|         20 | 101 Cochran Rd                           | 40502 | Lexington |
|         21 | 867 South Broadway                        | 40504 | Lexington |
```

	22		700 Clark Ave		63102		St. Louis
	23		Antarctic Support Contract 7400 S. Tucson Way		80112		Centennial
	24		1386 Lexington Rd		40206		Louisville
	25		867 South Broadway		40504		Lexington
	26		899 Manchester St		40508		Lexington
	27		1649 M-32		49735		Gaylord
	28		7345 Delridge Way SW		98106		Seattle
	29		500 S Upper St STE 110		40508		Lexington
	30		211 NE Revere Avenue		97701		Bend
	31		1837 Plaudit Pl		40509		Lexington
	32		525 Alakawa St		96817		Honolulu
	33		2021 Harrodsburg Rd		40504		Lexington
	34		2039 El Camino Real		95050		Santa Clara
	35		918 Natural Bridge Rd		40376		Slade
	36		867 S Broadway		40504		Lexington
	37		3400 Vine St		45220		Cincinnati
	38		417 E Maxwell St Unit B		40508		Lexington
	39		4055 Nichols Park Dr		40503		Lexington
	40		4081 Finn Way		40503		Lexington

```
SELECT * from Receipt_Table;
```

Transaction_Number	Seller_Key	Buyer_Key	Picture	Zip	StateName	Number_0
1	13	1	NULL	40503	KY	
2	33	31	NULL	40504	KY	
3	11	4	NULL	40502	KY	
4	29	17	NULL	40509	KY	
5	36	3	NULL	40504	KY	
6	13	5	NULL	40503	KY	
7	24	17	NULL	40508	KY	
8	13	2	NULL	40503	KY	
9	14	12	NULL	40509	KY	
10	15	9	NULL	32830	FL	
11	16	8	NULL	40511	KY	
12	29	17	NULL	40508	KY	
13	21	31	NULL	40527	KY	
14	22	31	NULL	20500	DC	
15	18	19	NULL	20301	DC	

```
15 rows in set (0.001 sec)
```

## Deliverable 6

## the query you wrote

```
Select EntityName, Concat(Street_Name, ", ", City, ", ", StateName, ", ", Zip) As "Full Address" From Entity
```

## the output it produced

### Deliverable 7

EntityName	Full Address
Mr. Ray L. Hyatt Jr.	300 Rose Street Room 102 Hardyman Building, Lexington, KY, 40504
Mr. Ray L. Hyatt Jr.	301 Hilltop Avenue, Room 102, Lexington, KY, 40504
John Wick	82 Beaver St Room 1301, New York, NY, 10005
Tony Stark	200 Park Avenue Penthouse, New York, NY, 10001
Dr. Stephen Strange	117A Bleecker Street, New York, NY, 10001
Bob C. Smith	200 Park Avenue Apartment 221, New York, NY, 10001
Bowman F. Wildcat	#1 Avenue of Champions, Lexington, KY, 40506
Bob C. Smith	200 Park Avenue, Lexington, KY, 40507
Bob Porter c/o Intech	1 Dead End Row Room 200, Dallas, TX, 12347
Mr. Bob Sydelc c/o Intech	1 Dead End Row Room 200, Dallas, TX, 12347
Chick-fil-A	2299 Richmond Rd, Lexington, KY, 40502
President Eli Capilouto	471 Rose St, Lexington, KY, 40508
Kroger	150 W Lowry Ln #190, Lexington, KY, 40503
Culver's	2161 Paul Jones Way, Lexington, KY, 40509
Magic Kingdom Park	1180 Seven Seas Dr, Lake Buena Vista, FL, 32830
Walmart Supercenter	500 W New Circle Rd, Lexington, KY, 40511
Tag Howard	123 NotAReal St, Lexington, KY, 40502
White House	1600 Pennsylvania Ave NW, Washington, DC, 20500
Pentagon	1400 Defense Pentagon, Washington, DC, 20301
Joella's Hot Chicken	101 Cochran Rd, Lexington, KY, 40502
Jersey Mike's Subs	867 South Broadway, Lexington, KY, 40504
Busch Stadium	700 Clark Ave, St. Louis, MO, 63102
Palmer Station (Antarctica)	Antarctic Support Contract 7400 S. Tucson Way, Camp Pendleton, CA, 92035
Headliners Music Hall	1386 Lexington Rd, Louisville, KY, 40206
Miyako Poke Bowl	867 South Broadway, Lexington, KY, 40504
Manchester Music Hall	899 Manchester St, Lexington, KY, 40508
E-Free Church Gaylord Campus	1649 M-32, Gaylord, MI, 49735
The Home Depot	7345 Delridge Way SW, Seattle, WA, 98106
Target	500 S Upper St STE 110, Lexington, KY, 40508
Blockbuster	211 NE Revere Avenue, Bend, OR, 97701
Michael Stacy	1837 Plaudit Pl, Lexington, KY, 40509
Costco Wholesale	525 Alakawa St, Honolulu, HI, 96817
The Home Depot	2021 Harrodsburg Rd, Lexington, KY, 40504

Patel Brothers	2039 El Camino Real, Santa Clara, CA, 95050
Thatcher Barbecue Company	918 Natural Bridge Rd, Slade, KY, 40376
DV8 Kitchen	867 S Broadway, Lexington, KY, 40504
Cincinnati Zoo & Botanical Garden	3400 Vine St, Cincinnati, OH, 45220
Kentucky Native Café	417 E Maxwell St Unit B, Lexington, KY, 40508
Lowe's	4055 Nichols Park Dr, Lexington, KY, 40503
J. Alexander's Restaurant	4081 Finn Way, Lexington, KY, 40503

+-----+-----

## Show the command you used to modify the table(s)

```
ALTER TABLE Entity_Table
ADD Primary_Telephone_Number varchar(32);

ALTER TABLE Entity_Table
ADD CONSTRAINT fk_Telephone_Number
FOREIGN KEY (Primary_Telephone_Number) REFERENCES Telephone_Numbers(Telephone_Number);
```

## Show the command(s) you used to modify the entities when you added the phone numbers

```
-- Primary phone numbers
INSERT INTO Telephone_Numbers(Telephone_Number , Entity_ID)
VALUES
('555-555-5555', 3),
('555-555-3142', 4),
('(555)555-4321', 5),
('(859)335-9856', 11),
('859-257-1701', 12),
('(859) 278-6228', 13),
('(859)263-7777', 14),
('(407)939-5277', 15),
('(859)381-9370', 16),
('(859)684-8444', 17),
('(202)456-1414', 18),
('(703)697-1776', 19),
('(859) 269-9593', 20),
('(859)288-0008', 21),
('13143459600', 22),
('(502) 584-8088', 24),
('(859)469-9098', 25),
('(859) 537-7321', 26),
('19897322647', 27),
('12067622126', 28),
```

```
('18592863352', 29),
('(541)385-9111', 30),
('(859)789-0812', 31),
('(808)526-6100', 32),
('(859) 373-0594', 33),
('14082613555', 34),
('(606)947-8040', 35),
('(859) 955-0388', 36),
('(513)281-4700', 37),
('(859)281-1718', 38),
('(859) 971-8300', 39),
('(859)687-0099', 40);

-- Citation:https://stackoverflow.com/questions/2015527/copy-one-column-from-one-table
-- UPDATE results, build
-- SET      results.platform_to_insert = build.correct_platform
-- WHERE    results.BuildID = build.BuildID

UPDATE Entity_Table, Telephone_Numbers
SET Entity_Table.Primary_Telephone_Number = Telephone_Numbers.Telephone_Number
WHERE Entity_Table.Entity_ID = Telephone_Numbers.Entity_ID;

-- Other phone numbers
INSERT INTO Telephone_Numbers(Telephone_Number , Entity_ID)
VALUES
('1-800-591-3869', 29),
('(859)260-9410', 33),
('(859)260-9404', 33);
```

## Show the select statement(s) you wrote

```
SELECT
  EntityName as 'Customer Name',
  Telephone_Number as 'Phone number',
  Zip as 'Zip code'
FROM
  Entity_Table
  LEFT JOIN Telephone_Numbers ON Telephone_Numbers.Entity_ID = Entity_Table.Entity_ID
WHERE
  Zip = (
    SELECT
      Zip
    FROM
      Entity_Table
    GROUP BY
      Zip
```

```

ORDER BY
  COUNT(Zip) DESC
LIMIT
  1
)
OR Zip = (
  SELECT
    Zip
  FROM
    Entity_Table
  GROUP BY
    Zip
  ORDER BY
    COUNT(Zip) DESC
  LIMIT
    1, 1
)
ORDER BY
  Zip;

```

## Show the output your queries produced

```

+-----+-----+-----+
| Customer Name      | Phone number  | Zip code |
+-----+-----+-----+
| Jersey Mike's Subs | (859)288-0008 | 40504   |
| Miyako Poke Bowl   | (859)469-9098 | 40504   |
| The Home Depot     | (859) 373-0594 | 40504   |
| The Home Depot     | (859)260-9404 | 40504   |
| The Home Depot     | (859)260-9410 | 40504   |
| DV8 Kitchen        | (859) 955-0388 | 40504   |
| President Eli Capilouto | 859-257-1701  | 40508   |
| Manchester Music Hall | (859) 537-7321 | 40508   |
| Target             | 1-800-591-3869 | 40508   |
| Target             | 18592863352    | 40508   |
| Kentucky Native Café | (859)281-1718 | 40508   |
+-----+-----+-----+
11 rows in set (0.00 sec)

```

## Show the output from select \* from for each of your tables.

```
SELECT * from Entity_Table;
```

```

+-----+-----+-----+
| Entity_ID | Street_Name | Zip | City |

```



1	300 Rose Street Room 102 Hardyman Building	40506	Lexington
2	301 Hilltop Avenue, Room 102	40506	Lexington
3	82 Beaver St Room 1301	10005	New York
4	200 Park Avenue Penthouse	10001	New York
5	117A Bleecker Street	10001	New York
6	200 Park Avenue Apartment 221	10001	New York
7	#1 Avenue of Champions	40506	Lexington
8	200 Park Avenue	40507	Lexington
9	1 Dead End Row Room 200	12347	Dallas
10	1 Dead End Row Room 200	12347	Dallas
11	2299 Richmond Rd	40502	Lexington
12	471 Rose St	40508	Lexington
13	150 W Lowry Ln #190	40503	Lexington
14	2161 Paul Jones Way	40509	Lexington
15	1180 Seven Seas Dr	32830	Lake Buena Vista
16	500 W New Circle Rd	40511	Lexington
17	111 Avenue of Champions Holmes Hall 803	40527	Lexington
18	1600 Pennsylvania Ave NW	20500	Washington
19	1400 Defense Pentagon	20301	Washington
20	101 Cochran Rd	40502	Lexington
21	867 South Broadway	40504	Lexington
22	700 Clark Ave	63102	St. Louis
23	Antarctic Support Contract 7400 S. Tucson Way	80112	Centennial
24	1386 Lexington Rd	40206	Louisville
25	867 South Broadway	40504	Lexington
26	899 Manchester St	40508	Lexington
27	1649 M-32	49735	Gaylord
28	7345 Delridge Way SW	98106	Seattle
29	500 S Upper St STE 110	40508	Lexington
30	211 NE Revere Avenue	97701	Bend
31	1837 Plaudit Pl	40509	Lexington
32	525 Alakawa St	96817	Honolulu
33	2021 Harrodsburg Rd	40504	Lexington
34	2039 El Camino Real	95050	Santa Clara
35	918 Natural Bridge Rd	40376	Slade
36	867 S Broadway	40504	Lexington
37	3400 Vine St	45220	Cincinnati
38	417 E Maxwell St Unit B	40508	Lexington
39	4055 Nichols Park Dr	40503	Lexington
40	4081 Finn Way	40503	Lexington

40 rows in set (0.00 sec)

SELECT \* from Receipt\_Table;

Transaction_Number	Seller_Key	Buyer_Key	Picture	Zip	StateName
--------------------	------------	-----------	---------	-----	-----------

1	13	1	NULL	40503	KY
2	33	31	NULL	40504	KY
3	11	29	NULL	40502	KY
4	29	17	NULL	40509	KY
5	36	3	NULL	40504	KY
6	13	5	NULL	40503	KY
7	24	17	NULL	40508	KY
8	13	32	NULL	40503	KY
9	14	21	NULL	40509	KY
10	15	29	NULL	32830	FL
11	16	29	NULL	40511	KY
12	29	17	NULL	40508	KY
13	21	31	NULL	40527	KY
14	22	31	NULL	20500	DC
15	18	19	NULL	20301	DC

15 rows in **set** (0.00 sec)

**SELECT \* from** Telephone\_Numbers;

Telephone_Number	Entity_ID
555-555-5555	3
555-555-3142	4
(555)555-4321	5
(859)335-9856	11
859-257-1701	12
(859) 278-6228	13
(859)263-7777	14
(407)939-5277	15
(859)381-9370	16
(859)684-8444	17
(202)456-1414	18
(703)697-1776	19
(859) 269-9593	20
(859)288-0008	21
13143459600	22
(502) 584-8088	24
(859)469-9098	25
(859) 537-7321	26
19897322647	27
12067622126	28
1-800-591-3869	29
18592863352	29
(541)385-9111	30
(859)789-0812	31

```

| (808)526-6100      |          32 |
| (859) 373-0594     |          33 |
| (859)260-9404      |          33 |
| (859)260-9410      |          33 |
| 14082613555        |          34 |
| (606)947-8040      |          35 |
| (859) 955-0388     |          36 |
| (513)281-4700      |          37 |
| (859)281-1718      |          38 |
| (859) 971-8300     |          39 |
| (859)687-0099      |          40 |
+-----+-----+
35 rows in set (0.00 sec)

```

## Deliverable 8

### the query you wrote

```

SELECT
    Buyer.EntityName AS "Customer name",
    Seller.EntityName AS "Business Name",
    ReceiptTable.Highest_Price AS "Highest Price",
    ReceiptTable.Total_Sales AS "Total Sale",
    ReceiptTable.StateName AS "State"
FROM Receipt_Table AS ReceiptTable
INNER JOIN Entity_Table AS Seller ON ReceiptTable.Seller_Key = Seller.Entity_ID
INNER JOIN Entity_Table AS Buyer ON ReceiptTable.Buyer_Key = Buyer.Entity_ID;

```

### the output it produced

```

+-----+-----+-----+-----+
| Customer name      | Business Name      | Highest Price      | Total Sale
+-----+-----+-----+-----+
| Mr. Ray L. Hyatt Jr. | Kroger              | 5.00               | 25.00
| Michael Stacy       | The Home Depot     | 6.99               | 30.00
| Tony Stark          | Chick-fil-A        | 13.37              | 29.75
| Tag Howard          | Target             | 12.00              | 36.04
| John Wick           | DV8 Kitchen        | 15.00              | 30.02
| Dr. Stephen Strange | Kroger              | 6.49               | 22.10
| Tag Howard          | Headliners Music Hall | 16.53              | 16.53
| Mr. Ray L. Hyatt Jr. | Kroger              | 23.00              | 47.44
| President Eli Capilouto | Culver's           | 9.99               | 25.00
| Bob Porter c/o Intech | Magic Kingdom Park | 15.99              | 78.25

```

Bob C. Smith	Walmart Supercenter	20.83	57.80
Tag Howard	Target	30.67	80.97
Michael Stacy	Jersey Mike's Subs	15.60	40.28
Michael Stacy	Busch Stadium	36213.35	36217.34
Pentagon	White House	705392000000.00	705392000000.00
+-----+	+-----+	+-----+	+-----+

## Deliverable 9

---

### the query you wrote

```
SELECT
  EntityName AS "Total Number"
FROM Entity_Table
WHERE EntityName LIKE '%bob%';
```

### the output it produced

```
+-----+
| Total Number |
+-----+
| Bob C. Smith |
| Bob C. Smith |
| Bob Porter c/o Intech |
| Mr. Bob Sydell c/o Intech |
+-----+
```

## Deliverable 10

---

### the query you wrote

```
SELECT Zip,
  Total_Sales AS "Total Sales"
FROM Receipt_Table
ORDER BY Total_Sales DESC;
```

### the output it produced

Zip	Total Sales
20301	705392000000.00
20500	36217.34
40508	80.97
32830	78.25
40511	57.80
40503	47.44
40527	40.28
40509	36.04
40504	30.02
40504	30.00
40502	29.75
40509	25.00
40503	25.00
40503	22.10
40508	16.53

## Deliverable 11

**Show the commands you used to do this and place these in your submission.**

```
/usr/bin/mysqldump -h mysql.cs.uky.edu -p -u jtho264 --single-transaction --databases :
```

## Deliverable 12

The information we had at hand influenced this project in many ways. As mentioned in deliverable 1, we chose to read the full assignment before starting. This was done because we wanted to ensure we understood the complexities of the assignment before starting and could ensure our work met all of the project requirements. Because of this, we formatted our receipt table to include the highest and lowest valued items in the beginning. If we did not have this information initially, we may not have included these values in the initial table creation. Despite having read the entire assignment, our characteristic college student haste did mean we missed or misinterpreted some details of the assignment initially. For example, our initial design did not include the ability to store multiple phone numbers per entity. To address this simply (and without needing to change too much else), we repurposed our initial phone number column as a 'primary' phone number column and made it a foreign key to a new table. This new table stored all phone numbers and only had a primary key to

store the number and a foreign key for the entity's ID. From the above, we see that information availability can influence how projects are designed and completed. At times, like in the first example, this previous knowledge helped our team complete the project more efficiently. However, if too much information is presented at once, important details can be missed. This occurred with our team in the second example. Overall, there needs to be a balance between providing enough information to complete tasks without overloading teams with details.