**# Group 3 Submission Document**

[GitHub repo we used](https://github.com/jthoward64/cs405g-project-1)

**## Deliverable 1**

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

- Michael Stacy: jmst231@uky.edu

- DeMarkus Butler: dlbu228@uky.edu

- Tag Howard: tag@jthoward.dev

- Keegan McCorkle: kjmc240@uky.edu

**### 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**

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

```sql

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).**

```sql

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).**

```sql

INSERT INTO Receipt\_Table(Transaction\_Number, Seller\_Key, Buyer\_Key, Picture, Zip, StateName, Total\_Sales, Number\_Of\_Items, Highest\_Price, Lowest\_Price)

VALUES

(1, 13, 1, NULL, '40503', 'KY', 25, 5, 5, 5);

INSERT INTO Receipt\_Table(Transaction\_Number, Seller\_Key, Buyer\_Key, Picture, Zip, StateName, Total\_Sales, Number\_Of\_Items, Highest\_Price, Lowest\_Price)

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.**

```sql

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

| Tables\_in\_jtho264 |

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

| Entity\_Table |

| Receipt\_Table |

| Telephone\_Numbers |

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

```

**## Deliverable 5**

**### run select \\* from <tablename>; where <tablename> is the name of the table(s) you created in your database.**

```sql

SELECT \* from Entity\_Table;

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

| Entity\_ID | Street\_Name | Zip | City | StateName | EntityName |

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

| 1 | 300 Rose Street Room 102 Hardymon Building | 40506 | Lexington | KY | Mr. Ray L. Hyatt Jr. |

| 2 | 301 Hilltop Avenue, Room 102 | 40506 | Lexington | KY | Mr. Ray L. Hyatt Jr. |

| 3 | 82 Beaver St Room 1301 | 10005 | New York | NY | John Wick |

| 4 | 200 Park Avenue Penthouse | 10001 | New York | NY | Tony Stark |

| 5 | 117A Bleecker Street | 10001 | New York | NY | Dr. Stephen Strange |

| 6 | 200 Park Avenue Apartment 221 | 10001 | New York | NY | Bob C. Smith |

| 7 | #1 Avenue of Champions | 40506 | Lexington | KY | Bowman F. Wildcat |

| 8 | 200 Park Avenue | 40507 | Lexington | KY | Bob C. Smith |

| 9 | 1 Dead End Row Room 200 | 12347 | Dallas | TX | Bob Porter c/o Intech |

| 10 | 1 Dead End Row Room 200 | 12347 | Dallas | TX | Mr. Bob Sydell c/o Intech |

| 11 | 2299 Richmond Rd | 40502 | Lexington | KY | Chick-fil-A |

| 12 | 471 Rose St | 40508 | Lexington | KY | President Eli Capilouto |

| 13 | 150 W Lowry Ln #190 | 40503 | Lexington | KY | Kroger |

| 14 | 2161 Paul Jones Way | 40509 | Lexington | KY | Culver's |

| 15 | 1180 Seven Seas Dr | 32830 | Lake Buena Vista | FL | Magic Kingdom Park |

| 16 | 500 W New Circle Rd | 40511 | Lexington | KY | Walmart Supercenter |

| 17 | 123 NotAReal St | 40502 | Lexington | KY | Tag Howard |

| 18 | 1600 Pennsylvania Ave NW | 20500 | Washington | DC | White House |

| 19 | 1400 Defense Pentagon | 20301 | Washington | DC | Pentagon |

| 20 | 101 Cochran Rd | 40502 | Lexington | KY | Joella's Hot Chicken |

| 21 | 867 South Broadway | 40504 | Lexington | KY | Jersey Mike's Subs |

| 22 | 700 Clark Ave | 63102 | St. Louis | MO | Busch Stadium |

| 23 | Antarctic Support Contract 7400 S. Tucson Way | 80112 | Centennial | CO | Palmer Station (Antarctica) |

| 24 | 1386 Lexington Rd | 40206 | Louisville | KY | Headliners Music Hall |

| 25 | 867 South Broadway | 40504 | Lexington | KY | Miyako Poke Bowl |

| 26 | 899 Manchester St | 40508 | Lexington | KY | Manchester Music Hall |

| 27 | 1649 M-32 | 49735 | Gaylord | MI | E-Free Church Gaylord Campus |

| 28 | 7345 Delridge Way SW | 98106 | Seattle | WA | The Home Depot |

| 29 | 500 S Upper St STE 110 | 40508 | Lexington | KY | Target |

| 30 | 211 NE Revere Avenue | 97701 | Bend | OR | Blockbuster |

| 31 | 1837 Plaudit Pl | 40509 | Lexington | KY | Michael Stacy |

| 32 | 525 Alakawa St | 96817 | Honolulu | HI | Costco Wholesale |

| 33 | 2021 Harrodsburg Rd | 40504 | Lexington | KY | The Home Depot |

| 34 | 2039 El Camino Real | 95050 | Santa Clara | CA | Patel Brothers |

| 35 | 918 Natural Bridge Rd | 40376 | Slade | KY | Thatcher Barbecue Company |

| 36 | 867 S Broadway | 40504 | Lexington | KY | DV8 Kitchen |

| 37 | 3400 Vine St | 45220 | Cincinnati | OH | Cincinnati Zoo & Botanical Garden |

| 38 | 417 E Maxwell St Unit B | 40508 | Lexington | KY | Kentucky Native Café |

| 39 | 4055 Nichols Park Dr | 40503 | Lexington | KY | Lowe's |

| 40 | 4081 Finn Way | 40503 | Lexington | KY | J. Alexander's Restaurant |

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

```

```sql

SELECT \* from Receipt\_Table;

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

| Transaction\_Number | Seller\_Key | Buyer\_Key | Picture | Zip | StateName | Number\_Of\_Items | Total\_Sales | Highest\_Price | Lowest\_Price |

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

| 1 | 13 | 1 | NULL | 40503 | KY | 5 | 25.00 | 5.00 | 5.00 |

| 2 | 33 | 31 | NULL | 40504 | KY | 5 | 30.00 | 6.99 | 3.49 |

| 3 | 11 | 4 | NULL | 40502 | KY | 3 | 29.75 | 13.37 | 6.49 |

| 4 | 29 | 17 | NULL | 40509 | KY | 5 | 36.04 | 12.00 | 2.89 |

| 5 | 36 | 3 | NULL | 40504 | KY | 4 | 30.02 | 15.00 | 3.00 |

| 6 | 13 | 5 | NULL | 40503 | KY | 5 | 22.10 | 6.49 | 0.24 |

| 7 | 24 | 17 | NULL | 40508 | KY | 1 | 16.53 | 16.53 | 16.53 |

| 8 | 13 | 2 | NULL | 40503 | KY | 5 | 47.44 | 23.00 | 4.49 |

| 9 | 14 | 12 | NULL | 40509 | KY | 4 | 25.00 | 9.99 | 4.00 |

| 10 | 15 | 9 | NULL | 32830 | FL | 6 | 78.25 | 15.99 | 9.99 |

| 11 | 16 | 8 | NULL | 40511 | KY | 4 | 57.80 | 20.83 | 10.87 |

| 12 | 29 | 17 | NULL | 40508 | KY | 6 | 80.97 | 30.67 | 5.87 |

| 13 | 21 | 31 | NULL | 40527 | KY | 4 | 40.28 | 15.60 | 6.00 |

| 14 | 22 | 31 | NULL | 20500 | DC | 2 | 36217.34 | 36213.35 | 3.99 |

| 15 | 18 | 19 | NULL | 20301 | DC | 1 | 705392000000.00 | 705392000000.00 | 705392000000.00 |

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

15 rows in set (0.001 sec)

```

**## Deliverable 6**

**### the query you wrote**

```sql

Select EntityName as "Customer/Business Full Name", Concat(Street\_Name, ", ", City, ", ", StateName, ", ", Zip) As "Delivery Address" FROM Entity\_Table;

```

**### the output it produced**

```sql

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

| Customer/Business Full Name | Delivery Address |

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

| Mr. Ray L. Hyatt Jr. | 300 Rose Street Room 102 Hardymon Building, Lexington, KY, 40506 |

| Mr. Ray L. Hyatt Jr. | 301 Hilltop Avenue, Room 102, Lexington, KY, 40506 |

| 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 Sydell 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, Centennial, CO, 80112 |

| 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 |

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

```

**## Deliverable 7**

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

```sql

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**

```sql

-- 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-to-another

-- 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**

```sql

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**

```sql

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

| 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 <tablename> for each of your tables.**

```sql

SELECT \* from Entity\_Table;

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

| Entity\_ID | Street\_Name | Zip | City | StateName | EntityName | Primary\_Telephone\_Number |

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

| 1 | 300 Rose Street Room 102 Hardymon Building | 40506 | Lexington | KY | Mr. Ray L. Hyatt Jr. | NULL |

| 2 | 301 Hilltop Avenue, Room 102 | 40506 | Lexington | KY | Mr. Ray L. Hyatt Jr. | NULL |

| 3 | 82 Beaver St Room 1301 | 10005 | New York | NY | John Wick | 555-555-5555 |

| 4 | 200 Park Avenue Penthouse | 10001 | New York | NY | Tony Stark | 555-555-3142 |

| 5 | 117A Bleecker Street | 10001 | New York | NY | Dr. Stephen Strange | (555)555-4321 |

| 6 | 200 Park Avenue Apartment 221 | 10001 | New York | NY | Bob C. Smith | NULL |

| 7 | #1 Avenue of Champions | 40506 | Lexington | KY | Bowman F. Wildcat | NULL |

| 8 | 200 Park Avenue | 40507 | Lexington | KY | Bob C. Smith | NULL |

| 9 | 1 Dead End Row Room 200 | 12347 | Dallas | TX | Bob Porter c/o Intech | NULL |

| 10 | 1 Dead End Row Room 200 | 12347 | Dallas | TX | Mr. Bob Sydell c/o Intech | NULL |

| 11 | 2299 Richmond Rd | 40502 | Lexington | KY | Chick-fil-A | (859)335-9856 |

| 12 | 471 Rose St | 40508 | Lexington | KY | President Eli Capilouto | 859-257-1701 |

| 13 | 150 W Lowry Ln #190 | 40503 | Lexington | KY | Kroger | (859) 278-6228 |

| 14 | 2161 Paul Jones Way | 40509 | Lexington | KY | Culver's | (859)263-7777 |

| 15 | 1180 Seven Seas Dr | 32830 | Lake Buena Vista | FL | Magic Kingdom Park | (407)939-5277 |

| 16 | 500 W New Circle Rd | 40511 | Lexington | KY | Walmart Supercenter | (859)381-9370 |

| 17 | 111 Avenue of Champions Holmes Hall 803 | 40527 | Lexington | KY | Tag Howard | (859)684-8444 |

| 18 | 1600 Pennsylvania Ave NW | 20500 | Washington | DC | White House | (202)456-1414 |

| 19 | 1400 Defense Pentagon | 20301 | Washington | DC | Pentagon | (703)697-1776 |

| 20 | 101 Cochran Rd | 40502 | Lexington | KY | Joella's Hot Chicken | (859) 269-9593 |

| 21 | 867 South Broadway | 40504 | Lexington | KY | Jersey Mike's Subs | (859)288-0008 |

| 22 | 700 Clark Ave | 63102 | St. Louis | MO | Busch Stadium | 13143459600 |

| 23 | Antarctic Support Contract 7400 S. Tucson Way | 80112 | Centennial | CO | Palmer Station (Antarctica) | NULL |

| 24 | 1386 Lexington Rd | 40206 | Louisville | KY | Headliners Music Hall | (502) 584-8088 |

| 25 | 867 South Broadway | 40504 | Lexington | KY | Miyako Poke Bowl | (859)469-9098 |

| 26 | 899 Manchester St | 40508 | Lexington | KY | Manchester Music Hall | (859) 537-7321 |

| 27 | 1649 M-32 | 49735 | Gaylord | MI | E-Free Church Gaylord Campus | 19897322647 |

| 28 | 7345 Delridge Way SW | 98106 | Seattle | WA | The Home Depot | 12067622126 |

| 29 | 500 S Upper St STE 110 | 40508 | Lexington | KY | Target | 18592863352 |

| 30 | 211 NE Revere Avenue | 97701 | Bend | OR | Blockbuster | (541)385-9111 |

| 31 | 1837 Plaudit Pl | 40509 | Lexington | KY | Michael Stacy | (859)789-0812 |

| 32 | 525 Alakawa St | 96817 | Honolulu | HI | Costco Wholesale | (808)526-6100 |

| 33 | 2021 Harrodsburg Rd | 40504 | Lexington | KY | The Home Depot | (859) 373-0594 |

| 34 | 2039 El Camino Real | 95050 | Santa Clara | CA | Patel Brothers | 14082613555 |

| 35 | 918 Natural Bridge Rd | 40376 | Slade | KY | Thatcher Barbecue Company | (606)947-8040 |

| 36 | 867 S Broadway | 40504 | Lexington | KY | DV8 Kitchen | (859) 955-0388 |

| 37 | 3400 Vine St | 45220 | Cincinnati | OH | Cincinnati Zoo & Botanical Garden | (513)281-4700 |

| 38 | 417 E Maxwell St Unit B | 40508 | Lexington | KY | Kentucky Native Café | (859)281-1718 |

| 39 | 4055 Nichols Park Dr | 40503 | Lexington | KY | Lowe's | (859) 971-8300 |

| 40 | 4081 Finn Way | 40503 | Lexington | KY | J. Alexander's Restaurant | (859)687-0099 |

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

40 rows in set (0.00 sec)

```

```sql

SELECT \* from Receipt\_Table;

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

| Transaction\_Number | Seller\_Key | Buyer\_Key | Picture | Zip | StateName | Number\_Of\_Items | Total\_Sales | Highest\_Price | Lowest\_Price |

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

| 1 | 13 | 1 | NULL | 40503 | KY | 5 | 25.00 | 5.00 | 5.00 |

| 2 | 33 | 31 | NULL | 40504 | KY | 5 | 30.00 | 6.99 | 3.49 |

| 3 | 11 | 29 | NULL | 40502 | KY | 3 | 29.75 | 13.37 | 6.49 |

| 4 | 29 | 17 | NULL | 40509 | KY | 5 | 36.04 | 12.00 | 2.89 |

| 5 | 36 | 3 | NULL | 40504 | KY | 4 | 30.02 | 15.00 | 3.00 |

| 6 | 13 | 5 | NULL | 40503 | KY | 5 | 22.10 | 6.49 | 0.24 |

| 7 | 24 | 17 | NULL | 40508 | KY | 1 | 16.53 | 16.53 | 16.53 |

| 8 | 13 | 32 | NULL | 40503 | KY | 5 | 47.44 | 23.00 | 4.49 |

| 9 | 14 | 21 | NULL | 40509 | KY | 4 | 25.00 | 9.99 | 4.00 |

| 10 | 15 | 29 | NULL | 32830 | FL | 6 | 78.25 | 15.99 | 9.99 |

| 11 | 16 | 29 | NULL | 40511 | KY | 4 | 57.80 | 20.83 | 10.87 |

| 12 | 29 | 17 | NULL | 40508 | KY | 6 | 80.97 | 30.67 | 5.87 |

| 13 | 21 | 31 | NULL | 40527 | KY | 4 | 40.28 | 15.60 | 6.00 |

| 14 | 22 | 31 | NULL | 20500 | DC | 2 | 36217.34 | 36213.35 | 3.99 |

| 15 | 18 | 19 | NULL | 20301 | DC | 1 | 705392000000.00 | 705392000000.00 | 705392000000.00 |

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

15 rows in set (0.00 sec)

```

```sql

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**

```sql

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**

```sql

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

| Customer name | Business Name | Highest Price | Total Sale | State |

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

| Mr. Ray L. Hyatt Jr. | Kroger | 5.00 | 25.00 | KY |

| Michael Stacy | The Home Depot | 6.99 | 30.00 | KY |

| Tony Stark | Chick-fil-A | 13.37 | 29.75 | KY |

| Tag Howard | Target | 12.00 | 36.04 | KY |

| John Wick | DV8 Kitchen | 15.00 | 30.02 | KY |

| Dr. Stephen Strange | Kroger | 6.49 | 22.10 | KY |

| Tag Howard | Headliners Music Hall | 16.53 | 16.53 | KY |

| Mr. Ray L. Hyatt Jr. | Kroger | 23.00 | 47.44 | KY |

| President Eli Capilouto | Culver's | 9.99 | 25.00 | KY |

| Bob Porter c/o Intech | Magic Kingdom Park | 15.99 | 78.25 | FL |

| Bob C. Smith | Walmart Supercenter | 20.83 | 57.80 | KY |

| Tag Howard | Target | 30.67 | 80.97 | KY |

| Michael Stacy | Jersey Mike's Subs | 15.60 | 40.28 | KY |

| Michael Stacy | Busch Stadium | 36213.35 | 36217.34 | DC |

| Pentagon | White House | 705392000000.00 | 705392000000.00 | DC |

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

```

**## Deliverable 9**

**### the query you wrote**

```sql

SELECT

EntityName AS "Total Number"

FROM Entity\_Table

WHERE EntityName LIKE '%bob%';

```

**### the output it produced**

```sql

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

| 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**

```sql

SELECT Zip,

Total\_Sales AS "Total Sales"

FROM Receipt\_Table

ORDER BY Total\_Sales DESC;

```

**### the output it produced**

```sql

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

| 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.**

```bash

/usr/bin/mysqldump -h mysql.cs.uky.edu -p -u jtho264 --single-transaction --databases jtho264 > cs405.group3.sql

```

**## Deliverable 12**

The information we had at hand influenced the project in several ways. For example, as mentioned in deliverable 1, we read the entire assignment before beginning. We did this to ensure all complexities of the assignment were understood before starting, allowing us to meet project requirements. Due to this, we formatted our receipt table to include the highest and lowest-valued items from the beginning. We may not have included these values in the initial table creation if we had not known this information.

Despite reading the entire assignment beforehand, our stereotypical college student haste meant we missed and misinterpreted some details of the project initially. Our initial design did not include the ability to store multiple phone numbers per entity. Addressing this, we repurposed our initial phone number column in the entity table as our primary phone number and made it a foreign key to a new table, ensuring each entity only had one primary phone number while allowing multiple non-primary phone numbers. The new table stored all phone numbers associated with an entity ID.

Based on what we learned, information availability can influence how database projects start and evolve over time. At times, previous knowledge helped our team complete the project more efficiently; however, essential details can be missed if too much information is presented simultaneously in the design plan. We experienced information overload in the second example. From the experience gained, we believe a company needs to plan sufficiently to allow a database to evolve by providing adequate information to complete tasks with room to grow.