|  |
| --- |
| **bars** |
| Name – Generate by using a mixmatch of cool names |
| License – Generate by using |
| City |
| State |
| Phone |
| Addr |
| Open Hours – 12 hours AM/PM |
| Close Hours – 12 hours AM/PM |

|  |
| --- |
| **beers** |
| Name |
| Manf |

|  |
| --- |
| **drinkers** |
| Name |
| City |
| State |
| Phone |
| Address |

Relation – Swing table

|  |
| --- |
| **frequents** |
| Drinker |
| Bar |

Relation

|  |
| --- |
| **likes** |
| Drinker |
| Beer |

\*\*Beneficial to get list of hour frames for each bar, can be multiple splits

\*\*Also beneficial to get list of all Foods,beers,softdrink a bar has

\*\*Also beneficial to get random gen list of all taxes and tips each unique sells gets

\*\*\*Remember Normal tax is fixed

|  |
| --- |
| **food\_sells** |
| Bar – what bar to sell food – PK |
| Food – what type of food – PK a + |
| Hours – what hours span (12) – PK – not required |
| Price – what price food costs within that hours span |
| Tax – tax imposed dependent |

|  |
| --- |
| **beer**\_**sells** |
| Bar – what bar to sell beer – PK |
| Beer – what type of beer – PK |
| Hours – what hours span (12) – PK |
| Price – what price beer costs within that hours span |
| Tax – tax imposed dependent |

|  |
| --- |
| **soft\_drink\_sells** |
| Bar – what bar to sell soft\_drink – PK |
| Soft Drink – what type of soft\_drink – PK |
| Hours – what hours span (12)- PK |
| Price – what price soft\_drink costs within that hours span |
| Tax – tax imposed dependent |

|  |
| --- |
| **food\_transacitons** |
| Bar – PK |
| Drinker – PK |
| Food – type of food - PK |
| Price – how much it costs + tax – take into account hours too |
| Tip – how much extra given – PK |
| Time – when sale trans happened - PK |

|  |
| --- |
| **beer\_transactions** |
| Bar – PK |
| Drinker – PK |
| Beer – type of beer – PK |
| Price – how much it costs + tax – take into account hours too |
| Tip – how much extra given – PK |
| Time – when beer trans happened - PK |

|  |
| --- |
| **soft\_drink\_transactions** |
| Bar – PK |
| Drinker – drinker – PK |
| Soft\_Drink – drink sold - PK |
| Price – how much it costs + tax - take into account hours too |
| Tip – how much extra given - PK |
| Time – when soft drink trans happened – PK |

1. Transaction/bills cannot be issued during closing times for bar
2. Drinkers cannot frequent bars in different state
3. Different bars can charge different price for same beer, but b1 can be either >b2 or b1 <b2

Using Wordpress to create website that can use MySQL

SET SQL\_SAFE\_UPDATES = 0;

Using eclipse JaveEE,Tomcat for website interactions.

Algorithm for foreign keys

ALTER TABLE frequents

ADD CONSTRAINT FK\_freq\_drinkers

FOREIGN KEY (drinker) REFERENCES drinkers(name)

ON UPDATE CASCADE

ON DELETE CASCADE,

ADD CONSTRAINT FK\_freq\_bars

FOREIGN KEY (bar) REFERENCES bars(name)

ON UPDATE CASCADE

ON DELETE CASCADE;

1. Foreign keys for frequents, variable names: FK\_freq\_drinkers, FK\_freq\_bars.
2. Foreign keys for likes, variable names: FK\_like\_drinkers, FK\_like\_beers.
3. Foreign keys for beer\_sells, variable names: FK\_sells\_bars, FK\_sells,beers.
4. Beer\_transactions DELETE from beer\_transactions where does not exists in beer sells
5. Foreign keys for food\_sells, variable names: FK\_fd\_sells\_bars, FK\_fd\_sells,beers.
6. Food\_sells transactions, DELETE from food\_transactions where does not exist in food\_sells
7. Foreign keys for soft\_drink\_sells, variable names: FK\_sd\_sells\_bars, FK\_sd\_sells,beers.
8. Soft\_drink\_transactions transactions, DELETE from soft\_drink\_transactions where does not exist in soft\_drink\_sells

EITHER HAVE THREE SELLS OR MAKE ONE BIG SELLS TABLE!!!!!!!

Pseudo – Assertion – Trigger

BASIC TABLES, LIKES,FREQUENTS

1. DROP TRIGGER IF EXISTS frequents\_UPD;

delimiter $$

CREATE TRIGGER frequents\_UPD

BEFORE UPDATE ON frequents

FOR EACH ROW

BEGIN

#If already in frequents table or the drinker

#or the bar does not exist

#in other tables, raise error

IF(EXISTS(SELECT \* FROM frequents

WHERE frequents.drinker=NEW.drinker

AND frequents.bar=NEW.bar)

OR NEW.bar NOT IN(SELECT B.name FROM bars B)

OR NEW.drinker NOT IN (SELECT D.name FROM drinkers D))

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion frequents update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS frequents\_INS;

delimiter $$

CREATE TRIGGER frequents\_INS

BEFORE UPDATE ON frequents

FOR EACH ROW

BEGIN

#If already in frequents table or the drinker

#or the bar does not exist

#in other tables, raise error

IF(EXISTS(SELECT \* FROM frequents

WHERE frequents.drinker=NEW.drinker

AND frequents.bar=NEW.bar)

OR NEW.bar NOT IN(SELECT B.name FROM bars B)

OR NEW.drinker NOT IN (SELECT D.name FROM drinkers D))

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion frequents insert’;

END IF;

END$$

delimiter ;

FREQUENTS Bar-Drinker STATE CASE

1. DROP TRIGGER IF EXISTS frequents\_STATE\_UPD;

delimiter $$

CREATE TRIGGER frequents\_STATE\_UPD

BEFORE UPDATe ON frequents

FOR EACH ROW

BEGIN

#Check if new update drinker state does NOT MATCH!

IF(

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar=B.name AND

EXISTS(

SELECT \* FROM drinkers D

WHERE D.name = NEW.drinker

AND D.state!=B.state

)

)

OR NEW.drinker NOT IN(SELECT name FROM drinkers)

OR NEW.bar NOT IN(SELECT name FROM bars)

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion frequents state update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS frequents\_STATE\_INS;

delimiter $$

CREATE TRIGGER frequents\_STATE\_INS

BEFORE INSERT ON frequents

FOR EACH ROW

BEGIN

#Check if new update drinker state does NOT MATCH!

IF(

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar=B.name AND

EXISTS(

SELECT \* FROM drinkers D

WHERE D.name = NEW.drinker

AND D.state!=B.state

)

)

OR NEW.drinker NOT IN(SELECT name FROM drinkers)

OR NEW.bar NOT IN(SELECT name FROM bars)

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion frequents state insert';

END IF;

END$$

delimiter ;

/\*

# FREQUENTS Test IT!

SELECT \* FROM frequents WHERE

drinker = 'Abel Francis'

#UPDATE frequents

#SET drinker = 'AF' ################### WORKS

#WHERE drinker = 'Abel Francis'

INSERT INTO frequents (drinker,bar)

Value ('Abel Francis','Murky Reindeer Pub')

FOR FREQUENTS STATE CASE

/\*

UPDATE frequents

SET frequents.bar = '15 North Cafe'

WHERE frequents.drinker = 'Abel Francis' AND frequents.bar = 'The Brauhaus'

\*/

#INSERT INTO frequents (drinker,bar)

#VALUE ('Abel Francis','15 North Cafe')

\*/

1. DROP TRIGGER IF EXISTS likes\_UPD;

delimiter $$

CREATE TRIGGER likes\_UPD

BEFORE UPDATE ON likes

FOR EACH ROW

BEGIN

#If already in frequents table or the drinker

#or the bar does not exist

#in other tables, raise error

IF(EXISTS(SELECT \* FROM likes

WHERE likes.drinker=NEW.drinker

AND likes.beer=NEW.beer)

OR NEW.beer NOT IN(SELECT B.name FROM beers B)

OR NEW.drinker NOT IN (SELECT D.name FROM drinkers D))

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion likes update;

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS likes\_INS;

delimiter $$

CREATE TRIGGER likes\_INS

BEFORE INSERT ON likes

FOR EACH ROW

BEGIN

#If already in frequents table or the drinker

#or the bar does not exist

#in other tables, raise error

IF(EXISTS(SELECT \* FROM likes

WHERE likes.drinker=NEW.drinker

AND likes.beer=NEW.beer)

OR NEW.beer NOT IN(SELECT B.name FROM beers B)

OR NEW.drinker NOT IN (SELECT D.name FROM drinkers D))

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion likes insert';

END IF;

END$$

delimiter ;

/\*

#Likes Test IT!

#SELECT \* FROM likes

#UPDATE likes

#SET drinker = 'AF' ################### WORKS

#WHERE drinker = 'Aimee Curtis'

INSERT INTO likes (drinker,beer)

Value ('Aimee Curt','Ancient Delight')

\*/

NOW ON TO SELLS

1. DROP TRIGGER IF EXISTS beer\_sells\_UPD;

delimiter $$

CREATE TRIGGER beer\_sells\_UPD

BEFORE UPDATE ON beer\_sells

FOR EACH ROW

BEGIN

#IF bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

EXISTS(

SELECT \* FROM beer\_sells B

WHERE B.beer!=NEW.beer AND B.price>NEW.price

AND EXISTS(

SELECT \* FROM beer\_sells B2

WHERE B2.beer=B.beer AND B2.price<NEW.price

)

)

OR NEW.beer NOT IN(SELECT B.name FROM beers B)

OR NEW.bar NOT IN (SELECT D.name FROM bars D)

OR NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion beer sells update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS beer\_sells\_INS;

delimiter $$

CREATE TRIGGER beer\_sells\_INS

BEFORE INSERT ON beer\_sells

FOR EACH ROW

BEGIN

#If bar,beer,price already in beer\_sells table,

#or bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

EXISTS(

SELECT \* FROM beer\_sells

WHERE(

beer\_sells.bar=NEW.bar

AND beer\_sells.beer=NEW.beer

)

)

OR

EXISTS(

SELECT \* FROM beer\_sells B

WHERE B.beer!=NEW.beer AND B.price>NEW.price

AND EXISTS(

SELECT \* FROM beer\_sells B2

WHERE B2.beer=B.beer AND B2.price<NEW.price

)

)

OR NEW.beer NOT IN(SELECT B.name FROM beers B)

OR NEW.bar NOT IN (SELECT D.name FROM bars D)

OR NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion beer sells insert';

END IF;

END$$

delimiter ;

1. #Beer Sells TEST

#SELECT \* FROM beer\_sells

###WHERE price = 8.52

#ORDER BY price ASC

#Test Update if price is not within correct argmax limit

#UPDATE beer\_sells

#SET price = 8.52

#WHERE price = 8.53

#8.52->9.13 TEST

#INSERT INTO beer\_sells (bar,beer,price)

#VALUE ('Cool Canary Tavern','Ancient Delight',)

1. DROP TRIGGER IF EXISTS food\_sells\_UPD;

delimiter $$

CREATE TRIGGER food\_sells\_UPD

BEFORE UPDATE ON food\_sells

FOR EACH ROW

BEGIN

#IF bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

NEW.food NOT IN(SELECT F.name FROM food F)

OR

NEW.bar NOT IN (SELECT D.name FROM bars D)

OR

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion food sells update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS food\_sells\_INS;

delimiter $$

CREATE TRIGGER food\_sells\_INS

BEFORE INSERT ON food\_sells

FOR EACH ROW

BEGIN

#IF bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

EXISTS(

SELECT \* FROM food\_sells

WHERE bar = NEW.bar AND food=NEW.food

)

OR

NEW.food NOT IN(SELECT F.name FROM food F)

OR

NEW.bar NOT IN (SELECT D.name FROM bars D)

OR

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion food sells insert';

END IF;

END$$

delimiter ;

1. #Food Sells TEST

#SELECT \* FROM food\_sells

###WHERE price = 8.52

#ORDER BY price ASC

#Test Update if price is not within correct argmax limit

#UPDATE food\_sells

#SET price = -1

#WHERE bar = 'Double D' AND food = 'Acapella'

#INSERT INTO food\_sells (bar,food,price)

#VALUE ('Westside Tavern','The Thai Crown',-1)

1. DROP TRIGGER IF EXISTS soft\_drink\_sells\_UPD;

delimiter $$

CREATE TRIGGER soft\_drink\_sells\_UPD

BEFORE UPDATE ON soft\_drink\_sells

FOR EACH ROW

BEGIN

#IF bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

NEW.soft\_drink NOT IN(SELECT S.name FROM soft\_drinks S)

OR

NEW.bar NOT IN (SELECT D.name FROM bars D)

OR

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion soft drink sells update';

END IF;

END$$

1. DROP TRIGGER IF EXISTS soft\_drink\_sells\_INS;

delimiter $$

CREATE TRIGGER soft\_drink\_sells\_INS

BEFORE INSERT ON soft\_drink\_sells

FOR EACH ROW

BEGIN

#IF bar,beer, -> price, price fails constraint

#or the bar or beer does not exist

#in other tables, raise error

IF(

EXISTS(

SELECT \* FROM soft\_drink\_sells

WHERE bar = NEW.bar AND soft\_drink=NEW.soft\_drink

)

OR

NEW.soft\_drink NOT IN(SELECT S.name FROM soft\_drinks S)

OR

NEW.bar NOT IN (SELECT D.name FROM bars D)

OR

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion soft drink sells insert';

END IF;

END$$

delimiter ;

1. #soft drink Sells TEST

#SELECT \* FROM soft\_drink\_sells

###WHERE price = 8.52

#ORDER BY price ASC

#Test Update if price is not within correct argmax limit

#UPDATE soft\_drink\_sells

#SET soft\_drink = 'S'

#WHERE bar = 'Triangular Mouse Pub' AND soft\_drink = "Nehi Soda"

#INSERT INTO soft\_drink\_sells (bar,soft\_drink,price)

#VALUE ('Triangular Mouse Pub','Nehi Soda',1)

NOW ON TO TRANSACTIONS

1. DROP TRIGGER IF EXISTS beer\_transactions\_UPD;

delimiter $$

CREATE TRIGGER beer\_transactions\_UPD

BEFORE UPDATE ON beer\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

#Check for price conflict ><

EXISTS(

SELECT \* FROM beer\_transactions T

WHERE T.beer!=NEW.beer

AND T.price>NEW.price

AND EXISTS(

SELECT \* FROM beer\_transactions T2

WHERE T2.beer=T.beer

AND T2.price<NEW.price

)

)

#End check for price conflict ><

OR

##Check if doesn't exist in basic tables...

NEW.beer NOT IN(SELECT name FROM beers)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion beer\_transactions update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS beer\_transactions\_INS;

delimiter $$

CREATE TRIGGER beer\_transactions\_INS

BEFORE INSERT ON beer\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

#Check for price conflict ><

EXISTS(

SELECT \* FROM beer\_transactions T

WHERE T.beer!=NEW.beer

AND T.price>NEW.price

AND EXISTS(

SELECT \* FROM beer\_transactions T2

WHERE T2.beer=T.beer

AND T2.price<NEW.price

)

)

#End check for price conflict ><

OR

##Check if doesn't exist in basic tables...

NEW.beer NOT IN(SELECT name FROM beers)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion beer\_transactions insert';

END IF;

END$$

delimiter ;

1. #Beer Transactions tests

#SELECT \* FROM beer\_transactions

#ORDER BY price ASC

#FROM 8.52 -> 9.32

/\*

UPDATE beer\_transactions

SET price = 8.5

WHERE

price = 8.53

LIMIT 1

\*/

#INSERT INTO beer\_transactions (bar,drinker,beer,price,tip,date\_of\_transaction,time\_of\_transaction)

#VALUE ('b','b','b',1,1,'2014-02-01','00:00:00')

1. DROP TRIGGER IF EXISTS food\_transactions\_UPD;

delimiter $$

CREATE TRIGGER food\_transactions\_UPD

BEFORE UPDATE ON food\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

##Check if doesn't exist in basic tables...

NEW.food NOT IN(SELECT name FROM food)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion food\_transactions update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS food\_transactions\_INS;

delimiter $$

CREATE TRIGGER food\_transactions\_INS

BEFORE INSERT ON food\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

##Check if doesn't exist in basic tables...

NEW.food NOT IN(SELECT name FROM food)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion food\_transactions insert';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS soft\_drink\_transactions\_UPD;

delimiter $$

CREATE TRIGGER soft\_drink\_transactions\_UPD

BEFORE UPDATE ON soft\_drink\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

##Check if doesn't exist in basic tables...

NEW.soft\_drink NOT IN(SELECT name FROM soft\_drinks)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion soft\_drink\_transactions update';

END IF;

END$$

delimiter ;

1. DROP TRIGGER IF EXISTS soft\_drink\_transactions\_INS;

delimiter $$

CREATE TRIGGER soft\_drink\_transactions\_INS

BEFORE INSERT ON soft\_drink\_transactions

FOR EACH ROW

BEGIN

IF(

#Check for time conflict

EXISTS(

SELECT \* FROM bars B

WHERE NEW.bar = B.name AND

(NEW.time\_of\_transaction !=B.closing\_time

AND

NEW.time\_of\_Transaction !=B.opening\_time

)

AND

#Case time is exactly on open or close time

(

#JOINT TIME CASE 1

#Bar closes after the 24th hour

(

TIMEDIFF(B.closing\_time,B.opening\_time)<

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time)>

CAST('00:00:00' AS time)

AND

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time)<

CAST('00:00:00' AS time)

)

)

#END JOINT TIME CASE 1

OR

#Bar closes before the 24th hour

#Joint Case 2

(

TIMEDIFF(B.closing\_time,B.opening\_time)>

CAST('00:00:00' AS time)

AND

(

TIMEDIFF(NEW.time\_of\_transaction,B.closing\_time) >

CAST('00:00:00' AS time)

OR

TIMEDIFF(NEW.time\_of\_transaction,B.opening\_time) <

CAST('00:00:00' AS time)

)

)

#Joint Case 2

#END JOINT TIME CASE 2

)

#End case time is exactly on open or close time

)

OR

#End chack time conflict

##Check if doesn't exist in basic tables...

NEW.soft\_drink NOT IN(SELECT name FROM soft\_drinks)

OR

NEW.bar NOT IN (SELECT name FROM bars)

OR

NEW.drinker NOT IN (SELECT name FROM drinkers)

OR

#Can only cost or be free, also all beers must

#satisfy constraint

NEW.price<0

)

THEN

#Error case

SIGNAL SQLSTATE '45000' SET MESSAGE\_TEXT = 'not accepted due to violation of assertion soft\_drink\_transactions insert';

END IF;

END$$

delimiter ;

**Front End Queries**

1. Drinker page For 1 drinker, SHOW

Create Query then bar graph on:

1. Drinker, show all their transactions, GROUP BY bar ASC,time\_of\_transaction ASC.

All transactions group by time and bar

**Query:**

SELECT T.bar,T.drinker,T.consumable,T.price,T.tip,T.date\_of\_transaction,T.time\_of\_transaction FROM

(

(

##Drinker1 Transactions

SELECT BT1.bar,BT1.drinker,BT1.beer AS consumable,BT1.price,BT1.tip,BT1.date\_of\_transaction,BT1.time\_of\_transaction FROM BBDP.beer\_transactions

AS BT1

JOIN

(SELECT \* FROM BBDP.beer\_transactions

##Append Drinker Name HERE!!

#WHERE drinker = "Aimee Curtis"

##Append Drinker NAme HERE!!

ORDER BY date\_of\_transaction+time\_of\_transaction ASC)

AS BT2

ON BT1.bar=BT2.bar AND BT1.drinker = BT2.drinker

AND BT1.beer=BT2.beer AND BT1.price=BT2.price

AND BT1.date\_of\_transaction=BT2.date\_of\_transaction

AND BT1.time\_of\_transaction=BT2.time\_of\_transaction

ORDER BY BT1.bar,BT1.date\_of\_transaction,BT1.time\_of\_transaction

)

UNION ALL

(

SELECT BT1.bar,BT1.drinker,BT1.food,BT1.price,BT1.tip,BT1.date\_of\_transaction,BT1.time\_of\_transaction FROM BBDP.food\_transactions

AS BT1

JOIN

(SELECT \* FROM BBDP.food\_transactions

##Append Drinker Name HERE!!

#WHERE drinker = "Aimee Curtis"

##Append Drinker NAme HERE!!

ORDER BY date\_of\_transaction+time\_of\_transaction ASC)

AS BT2

ON BT1.bar=BT2.bar AND BT1.drinker = BT2.drinker

AND BT1.food=BT2.food AND BT1.price=BT2.price

AND BT1.date\_of\_transaction=BT2.date\_of\_transaction

AND BT1.time\_of\_transaction=BT2.time\_of\_transaction

ORDER BY BT1.bar,BT1.date\_of\_transaction,BT1.time\_of\_transaction

)

UNION ALL

(

SELECT BT1.bar,BT1.drinker,BT1.soft\_drink,BT1.price,BT1.tip,BT1.date\_of\_transaction,BT1.time\_of\_transaction FROM BBDP.soft\_drink\_transactions

AS BT1

JOIN

(SELECT \* FROM BBDP.soft\_drink\_transactions

##Append Drinker Name HERE!!

#WHERE drinker = "Aimee Curtis"

##Append Drinker NAme HERE!!

ORDER BY date\_of\_transaction+time\_of\_transaction ASC)

AS BT2

ON BT1.bar=BT2.bar AND BT1.drinker = BT2.drinker

AND BT1.soft\_drink=BT2.soft\_drink AND BT1.price=BT2.price

AND BT1.date\_of\_transaction=BT2.date\_of\_transaction

AND BT1.time\_of\_transaction=BT2.time\_of\_transaction

ORDER BY BT1.bar,BT1.date\_of\_transaction,BT1.time\_of\_transaction

)

)

AS T

ORDER BY bar,date\_of\_transaction,time\_of\_transaction

1. Beers they ordered the most. Select beers which count from transaction is maximized.

From min to greatest, bargraph on label num beers and label bar

**Query:**

# Set of maximum bought beers from Drinker

# Set of maximum bought beers from Drinker

SELECT T.beer FROM beer\_transactions T

WHERE T.drinker = "Aimee Curtis"

AND NOT EXISTS(

(

SELECT T3.beer FROM beer\_transactions T3

WHERE T3.drinker=T.drinker AND T3.beer!=T.beer

AND(

(SELECT COUNT(T2.beer) FROM beer\_transactions T2

WHERE T2.drinker=T.drinker AND T2.beer=T.beer

)

<

(SELECT COUNT(T2.beer) FROM beer\_transactions T2

WHERE T2.drinker=T.drinker AND T2.beer=T3.beer

)

)

)

)

Spending in different bars for dates/weeks/months, compare them all…

EX spending b graph for 365 days, label each bar, label price height

Spending b graph for 52 weeks, label each bar, label price height

1. Days of Year

(

(SELECT T.bar,T.drinker,T.beer,T.price,DAYOFYEAR(T.date\_of\_transaction) AS DOY FROM beer\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY DOY

)

UNION

(

SELECT T.bar,T.drinker,T.food,T.price,DAYOFYEAR(T.date\_of\_transaction) AS DOY FROM food\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY bar,DOY

)

UNION(

SELECT T.bar,T.drinker,T.soft\_drink,T.price,DAYOFYEAR(T.date\_of\_transaction) AS DOY FROM soft\_drink\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY DOY

)

ORDER BY DOY

)

1. Days of Week

(

(

SELECT T.bar,T.drinker,T.beer,T.price,

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

FROM beer\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY FIELD(DOW, 'MONDAY', 'TUESDAY', 'WEDNESDAY', 'THURSDAY', 'FRIDAY', 'SATURDAY', 'SUNDAY')

)

UNION

(

SELECT T.bar,T.drinker,T.food,T.price,

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

FROM food\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY FIELD(DOW, 'MONDAY', 'TUESDAY', 'WEDNESDAY', 'THURSDAY', 'FRIDAY', 'SATURDAY', 'SUNDAY')

)

UNION(

SELECT T.bar,T.drinker,T.soft\_drink,T.price,

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

FROM soft\_drink\_transactions T

WHERE T.drinker = "Aimee Curtis"

ORDER BY FIELD(DOW, 'MONDAY', 'TUESDAY', 'WEDNESDAY', 'THURSDAY', 'FRIDAY', 'SATURDAY', 'SUNDAY')

)

ORDER BY bar,FIELD(DOW, 'MONDAY', 'TUESDAY', 'WEDNESDAY', 'THURSDAY', 'FRIDAY', 'SATURDAY', 'SUNDAY')

)

1. Months of Year

(SELECT T.bar,T.drinker,T.beer,T.price,MONTH(T.date\_of\_transaction) AS MOY FROM beer\_transactions T

WHERE T.drinker="Aimee Curtis"

)

UNION(

SELECT T.bar,T.drinker,T.food,T.price,MONTH(T.date\_of\_transaction) AS MOY FROM food\_transactions T

WHERE T.drinker="Aimee Curtis"

)

UNION(

SELECT T.bar,T.drinker,T.soft\_drink,T.price,MONTH(T.date\_of\_transaction) AS MOY FROM soft\_drink\_transactions T

WHERE T.drinker="Aimee Curtis"

)

ORDER BY bar,MOY

1. Bar Page For 1 bar, SHOW
2. Largest spenders of drinkers

**Query:**

SELECT DISTINCT T.bar,T.drinker,

(

(

SELECT SUM(T2.price) FROM beer\_transactions T2

WHERE T.bar=T2.bar AND T.drinker = T2.drinker

)

+

(

SELECT SUM(T2.price) FROM food\_transactions T2

WHERE T.bar=T2.bar AND T.drinker = T2.drinker

)

+

(

SELECT SUM(T2.price) FROM soft\_drink\_transactions T2

WHERE T.bar=T2.bar AND T.drinker = T2.drinker

)

)

AS AllSpending

FROM beer\_transactions T

WHERE T.bar = ‘15 North Café’

ORDER BY AllSpending DESC

1. Beers most popular – most transactions for them…

**Query**

SET @SameBeer:='0';

SELECT DISTINCT T.bar,T.beer,@SameBeer FROM beer\_transactions T

WHERE

T.bar = "15 North Cafe"

AND

(SELECT @SameBeer:=COUNT(\*) FROM beer\_transactions T2

WHERE T.bar=T2.bar AND T2.beer=T.beer

)

ORDER BY @SameBeer DESC

1. Manufacturers selling the most beers

**Query**

SET @SameBeer:=0;

SET @Manf:='0';

SET @Beer:='0';

SELECT DISTINCT T.bar,T.beer,@SameBeer,@Manf FROM beer\_transactions T

WHERE

T.bar=’15 North Cafe’

AND

(

#Hack to set variables to desired results

(SELECT @SameBeer:=COUNT(\*) FROM beer\_transactions T2

WHERE T.bar=T2.bar AND T2.beer=T.beer

)

+

(

SELECT @Manf:=B.manf FROM beers B

WHERE B.name=T.beer

)

)

#########################################

ORDER BY @SameBeer DESC

1. Time distribution of sales

**Query**

(

SELECT time\_of\_transaction,T.beer,T.price FROM beer\_transactions T

WHERE T.bar="15 North Cafe"

)

UNION

(

SELECT time\_of\_transaction,T.food,T.price FROM food\_transactions T

WHERE T.bar="15 North Cafe"

)

UNION

(

SELECT time\_of\_transaction,T.soft\_drink,T.price FROM soft\_drink\_transactions T

WHERE T.bar="15 North Cafe"

)

ORDER BY time\_of\_transaction ASC

1. Busiest Periods

**Query**

#Busiest periods of day..... TIME, within 1-12 hour periods

#Busiest period for beer, then food, then soft drink

#transactions for givne BAR

SET @HourCount1:=0;

SET @HourCount2:=0;

SET @HourCount3:=0;

SET @HourCount4:=0;

SET @HourCount5:=0;

SET @HourCount6:=0;

SET @HourCount7:=0;

SET @HourCount8:=0;

SET @HourCount9:=0;

SET @HourCount10:=0;

SET @HourCount11:=0;

SET @HourCount12:=0;

SET @MaxTimeWindow:=0;

SET @MaxTimeWindowOccurrence:=0;

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT HOUR(T.time\_of\_transaction) AS HOUR,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM beer\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=6

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=7

AND T2.bar=T.bar

)

+

(

SELECT @HourCount8:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=8

AND T2.bar=T.bar

)

+

(

SELECT @HourCount9:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=9

AND T2.bar=T.bar

)

+

(

SELECT @HourCount10:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=10

AND T2.bar=T.bar

)

+

(

SELECT @HourCount11:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=11

AND T2.bar=T.bar

)

+

(

SELECT @HourCount12:=COUNT(\*) FROM beer\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=12

AND T2.bar=T.bar

)

#O(2n) To get case for each hour  Hashtable insert, Hashtable iteration

#ORDER BY MaxTimeWindowOccurrence DESC

UNION###########################################################

(

(

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT HOUR(T.time\_of\_transaction) AS HOUR,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM food\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=6

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=7

AND T2.bar=T.bar

)

+

(

SELECT @HourCount8:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=8

AND T2.bar=T.bar

)

+

(

SELECT @HourCount9:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=9

AND T2.bar=T.bar

)

+

(

SELECT @HourCount10:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=10

AND T2.bar=T.bar

)

+

(

SELECT @HourCount11:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=11

AND T2.bar=T.bar

)

+

(

SELECT @HourCount12:=COUNT(\*) FROM food\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=12

AND T2.bar=T.bar

)

#O(2n) To get case for each hour Hashtable insert, Hashtable iteration

#ORDER BY MaxTimeWindowOccurrence DESC

)

)

UNION#############################################

(

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT HOUR(T.time\_of\_transaction) AS HOUR,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM soft\_drink\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=6

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=7

AND T2.bar=T.bar

)

+

(

SELECT @HourCount8:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=8

AND T2.bar=T.bar

)

+

(

SELECT @HourCount9:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=9

AND T2.bar=T.bar

)

+

(

SELECT @HourCount10:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=10

AND T2.bar=T.bar

)

+

(

SELECT @HourCount11:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=11

AND T2.bar=T.bar

)

+

(

SELECT @HourCount12:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE HOUR(T2.time\_of\_transaction)-HOUR(T.time\_of\_transaction)=12

AND T2.bar=T.bar

)

#O(2n) To get case for each hour Hashtable insert, Hashtable iteration

)

1. **FOR days of week**

#Busiest periods of day..... TIME, within 1-12 hour periods

#Busiest period for beer, then food, then soft drink

#transactions for givne BAR

SET @HourCount1:=0;

SET @HourCount2:=0;

SET @HourCount3:=0;

SET @HourCount4:=0;

SET @HourCount5:=0;

SET @HourCount6:=0;

SET @HourCount7:=0;

SET @HourCount8:=0;

SET @HourCount9:=0;

SET @HourCount10:=0;

SET @HourCount11:=0;

SET @HourCount12:=0;

SET @MaxTimeWindow:=0;

SET @MaxTimeWindowOccurrence:=0;

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM beer\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=0

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM beer\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=6

AND T2.bar=T.bar

)

#ORDER BY MaxTimeWindowOccurrence DESC

UNION###########################################################

(

(

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM food\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=0

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM food\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=6

AND T2.bar=T.bar

)

#ORDER BY MaxTimeWindowOccurrence DESC

)

)

UNION#############################################

(

#Will look at 1,...,12 hour periods

#To find busiest period of the day

SELECT DISTINCT

CASE

WHEN (DAYOFWEEK(T.date\_of\_transaction))=1

THEN "Monday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=2

THEN "Tuesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=3

THEN "Wednesday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=4

THEN "Thursday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=5

THEN "Friday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=6

THEN "Saturday"

WHEN (DAYOFWEEK(T.date\_of\_transaction))=7

THEN "Sunday"

END

AS DOW

,@MaxTimeWindow:=

(CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN 1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN 2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN 3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN 4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN 5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN 6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN 7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN 8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN 9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN 10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN 11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN 12

END

)

AS HandleAllHoursCase

,@MaxTimeWindowOccurrence:=

(

CASE

WHEN @HourCount1>=@HourCount2 AND @HourCount1>=@HourCount3 AND @HourCount1>=@HourCount4 AND @HourCount1>=@HourCount5 AND @HourCount1>=@HourCount6 AND @HourCount1>=@HourCount7 AND @HourCount1>=@HourCount8 AND @HourCount1>=@HourCount9 AND @HourCount1>=@HourCount10 AND @HourCount1>=@HourCount11 AND @HourCount1>=@HourCount12

THEN @HourCount1

WHEN @HourCount2>=@HourCount1 AND @HourCount2>=@HourCount3 AND @HourCount2>=@HourCount4 AND @HourCount2>=@HourCount5 AND @HourCount2>=@HourCount6 AND @HourCount2>=@HourCount7 AND @HourCount2>=@HourCount8 AND @HourCount2>=@HourCount9 AND @HourCount2>=@HourCount10 AND @HourCount2>=@HourCount11 AND @HourCount2>=@HourCount12

THEN @HourCount2

WHEN @HourCount3>=@HourCount1 AND @HourCount3>=@HourCount2 AND @HourCount3>=@HourCount4 AND @HourCount3>=@HourCount5 AND @HourCount3>=@HourCount6 AND @HourCount3>=@HourCount7 AND @HourCount3>=@HourCount8 AND @HourCount3>=@HourCount9 AND @HourCount3>=@HourCount10 AND @HourCount3>=@HourCount11 AND @HourCount3>=@HourCount12

THEN @HourCount3

WHEN @HourCount4>=@HourCount1 AND @HourCount4>=@HourCount2 AND @HourCount4>=@HourCount3 AND @HourCount4>=@HourCount5 AND @HourCount4>=@HourCount6 AND @HourCount4>=@HourCount7 AND @HourCount4>=@HourCount8 AND @HourCount4>=@HourCount9 AND @HourCount4>=@HourCount10 AND @HourCount4>=@HourCount11 AND @HourCount4>=@HourCount12

THEN @HourCount4

WHEN @HourCount5>=@HourCount1 AND @HourCount5>=@HourCount2 AND @HourCount5>=@HourCount3 AND @HourCount5>=@HourCount4 AND @HourCount5>=@HourCount6 AND @HourCount5>=@HourCount7 AND @HourCount5>=@HourCount8 AND @HourCount5>=@HourCount9 AND @HourCount5>=@HourCount10 AND @HourCount5>=@HourCount11 AND @HourCount5>=@HourCount12

THEN @HourCount5

WHEN @HourCount6>=@HourCount1 AND @HourCount6>=@HourCount2 AND @HourCount6>=@HourCount3 AND @HourCount6>=@HourCount4 AND @HourCount6>=@HourCount5 AND @HourCount6>=@HourCount7 AND @HourCount6>=@HourCount8 AND @HourCount6>=@HourCount9 AND @HourCount6>=@HourCount10 AND @HourCount6>=@HourCount11 AND @HourCount6>=@HourCount12

THEN @HourCount6

WHEN @HourCount7>=@HourCount1 AND @HourCount7>=@HourCount2 AND @HourCount7>=@HourCount3 AND @HourCount7>=@HourCount4 AND @HourCount7>=@HourCount5 AND @HourCount7>=@HourCount6 AND @HourCount7>=@HourCount8 AND @HourCount7>=@HourCount9 AND @HourCount7>=@HourCount10 AND @HourCount7>=@HourCount11 AND @HourCount7>=@HourCount12

THEN @HourCount7

WHEN @HourCount8>=@HourCount1 AND @HourCount8>=@HourCount2 AND @HourCount8>=@HourCount3 AND @HourCount8>=@HourCount4 AND @HourCount8>=@HourCount5 AND @HourCount8>=@HourCount6 AND @HourCount8>=@HourCount7 AND @HourCount8>=@HourCount9 AND @HourCount8>=@HourCount10 AND @HourCount8>=@HourCount11 AND @HourCount8>=@HourCount12

THEN @HourCount8

WHEN @HourCount9>=@HourCount1 AND @HourCount9>=@HourCount2 AND @HourCount9>=@HourCount3 AND @HourCount9>=@HourCount4 AND @HourCount9>=@HourCount5 AND @HourCount9>=@HourCount6 AND @HourCount9>=@HourCount7 AND @HourCount9>=@HourCount8 AND @HourCount9>=@HourCount10 AND @HourCount9>=@HourCount11 AND @HourCount9>=@HourCount12

THEN @HourCount9

WHEN @HourCount10>=@HourCount1 AND @HourCount10>=@HourCount2 AND @HourCount10>=@HourCount3 AND @HourCount10>=@HourCount4 AND @HourCount10>=@HourCount5 AND @HourCount10>=@HourCount6 AND @HourCount10>=@HourCount7 AND @HourCount10>=@HourCount8 AND @HourCount10>=@HourCount9 AND @HourCount10>=@HourCount11 AND @HourCount10>=@HourCount12

THEN @HourCount10

WHEN @HourCount11>=@HourCount1 AND @HourCount11>=@HourCount2 AND @HourCount11>=@HourCount3 AND @HourCount11>=@HourCount4 AND @HourCount11>=@HourCount5 AND @HourCount11>=@HourCount6 AND @HourCount11>=@HourCount7 AND @HourCount11>=@HourCount8 AND @HourCount11>=@HourCount9 AND @HourCount11>=@HourCount10 AND @HourCount11>=@HourCount12

THEN @HourCount11

WHEN @HourCount12>=@HourCount1 AND @HourCount12>=@HourCount2 AND @HourCount12>=@HourCount3 AND @HourCount12>=@HourCount4 AND @HourCount12>=@HourCount5 AND @HourCount12>=@HourCount6 AND @HourCount12>=@HourCount7 AND @HourCount12>=@HourCount8 AND @HourCount12>=@HourCount9 AND @HourCount12>=@HourCount10 AND @HourCount12>=@HourCount11

THEN @HourCount12

END

)

As MaxTimeWindowOccurrence

FROM soft\_drink\_transactions T

WHERE

T.bar="15 North Cafe"

AND

(

SELECT @HourCount1:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=0

AND T2.bar=T.bar

)

+

(

SELECT @HourCount2:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=1

AND T2.bar=T.bar

)

+

(

SELECT @HourCount3:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=2

AND T2.bar=T.bar

)

+

(

SELECT @HourCount4:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=3

AND T2.bar=T.bar

)

+

(

SELECT @HourCount5:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=4

AND T2.bar=T.bar

)

+

(

SELECT @HourCount6:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=5

AND T2.bar=T.bar

)

+

(

SELECT @HourCount7:=COUNT(\*) FROM soft\_drink\_transactions T2

WHERE DAYOFWEEK(T2.date\_of\_transaction)-DAYOFWEEK(T.date\_of\_transaction)=6

AND T2.bar=T.bar

)

)

ORDER BY MaxTimeWindowOccurrence DESC

ORDER BY MaxTimeWindowOccurrence DESC

**Beer Page**

1. Given BEER, show bars where beers sells most

**Query**

#Set of maximum bought beers in all bars

SELECT DISTINCT T.bar,T.beer,

(

SELECT COUNT(\*) FROM beer\_transactions T2

WHERE T2.beer=T.beer AND T2.bar=T.bar

)

AS CountOcc

FROM beer\_transactions T

WHERE T.beer="Crazy Rum"

ORDER BY CountOcc DESC

1. Show drinkers the biggest consumers of this beer

**Query**

#Set of maximum bought beers in all bars

SELECT DISTINCT T.drinker,

(

SELECT COUNT(\*) FROM beer\_transactions T2

WHERE T2.beer=T.beer AND T2.bar=T.bar AND HOUR(T2.time\_of\_transaction)=HOUR(T.time\_of\_transaction)

AND T2.drinker = T.drinker

)

AS CountOcc

FROM beer\_transactions T

WHERE T.beer="Crazy Rum"

ORDER BY CountOcc DESC

1. Show time distribution of when beer sells most

**Query**

#Set of maximum bought beers in all bars

SELECT DISTINCT HOUR(T.time\_of\_transaction),

(

SELECT COUNT(\*) FROM beer\_transactions T2

WHERE T2.beer=T.beer AND T2.bar=T.bar AND HOUR(T2.time\_of\_transaction)=HOUR(T.time\_of\_transaction)

)

AS CountOcc

FROM beer\_transactions T

WHERE T.beer="Crazy Rum"

ORDER BY T.time\_of\_transaction,CountOcc DESC