```sql
use BUDT703_Project_0506_12;
DROP VIEW IF EXISTS V1
DROP VIEW IF EXISTS V2
DROP VIEW IF EXISTS V3
DROP VIEW IF EXISTS V4
DROP VIEW IF EXISTS focus


GO
CREATE VIEW V1
AS
--Q1: What the average star rate of each restaurant
SELECT t.restName,AVG(r.revrStar) 'avgRevrStar'
FROM [G12.Reviewer] r, [G12.Restaurant] t
WHERE r.restId =t.restId
GROUP BY t.restName


--Q2: How many negative/positive reviews each restaurant received? And
what about their rate? order by the rate of positive?
GO
CREATE VIEW V2
AS
SELECT t1.restName, q1.cn 'Total reviews', q1.neg 'Number of
Negative',ROUND(CAST(q1.neg AS FLOAT)/q1.cn,2) 'Negative Rate', q1.pos
'Number of Positive', ROUND(CAST(q1.pos AS FLOAT)/q1.cn ,2) 'Positive Rate'
FROM [G12.Restaurant] t1,(
        SELECT r3.restId, COUNT(r3.revrId) 'cn', q.ne 'neg',q.po 'pos'
        FROM [G12.Reviewer] r3, (
                SELECT r2.restId, COUNT(revrExperience_Positive_or_Negative )
ne, p.po
                FROM [G12.Reviewer] r2, (
                        SELECT r1.restId,
COUNT(revrExperience_Positive_or_Negative ) po
                        FROM [G12.Reviewer] r1
                        WHERE revrExperience_Positive_or_Negative = 'P'
                        GROUP BY r1.restId ) p
                WHERE r2.restId = p.restId
                GROUP BY r2.restId, revrExperience_Positive_or_Negative , p.po
                HAVING revrExperience_Positive_or_Negative = 'N') q
        WHERE r3.restId = q.restId
        GROUP BY r3.restId, q.ne,q.po) q1
WHERE t1.restId = q1.restId
GROUP BY t1.restName, q1.cn,q1.neg,q1.pos
```

--Q3 :Which restaurant has the most complete features and where is the location?
GO
CREATE VIEW V3
AS
SELECT t.restName, CONCAT(t.restStreet, ' ', t.restState) as 'Location'
FROM [G12.Restaurant] t,(
        SELECT f.restId
        FROM [G12.Features] f
        WHERE f.feaReservation = 'Y'
        and f.feaDeliver = 'Y'
        and f.feaTakeOut = 'Y') a1
WHERE t.restId = a1.restId

--Q4: What is the distribution of reviews which are higher than 4 stars for each restaurant? The distribution is categorized within environment/ food/ service
GO
CREATE VIEW focus
AS
SELECT y1.restId,v.commentFocus,Y1.revrId
FROM [G12.Review] v ,(
SELECT e.restId, e.revrId
FROM [G12.Reviewer] e
WHERE e.revrStar >3
GROUP BY e.restId, e.revrId) y1
WHERE y1.revrId =v.revrId

GO
CREATE VIEW V4
AS
SELECT g.restName, g.restId,ISNULL(sef.environment, 0) 'environment',
ISNULL(sef.food,0) 'food', ISNULL(sef.service,0) 'service'
FROM [G12.Restaurant] g, (
        SELECT ISNULL(f1.restId, se.restId) 'restId', f1.food, se.environment, se.service
        FROM (
                SELECT i.restId , COUNT(f.commentFocus) 'food'
                FROM [G12.Restaurant] i, focus f
                WHERE I.restId =f.restId
                GROUP BY i.restId, f.commentFocus
                HAVING f.commentFocus ='FOOD') f1
        FULL OUTER JOIN (
                SELECT s.restId, s.service, e.environment
                FROM (

SELECT i.restId , COUNT(f.commentFocus) 'service'
FROM [G12.Restaurant] i, focus f
WHERE l.restId =f.restId
GROUP BY i.restId, f.commentFocus
HAVING f.commentFocus ='SERVICE') s
FULL OUTER JOIN (
SELECT i.restId , COUNT(f.commentFocus) 'environment'
FROM [G12.Restaurant] i, focus f
WHERE l.restId =f.restId
GROUP BY i.restId, f.commentFocus
HAVING f.commentFocus ='ENVIRONMENT') e
ON s.restId=e.restId) se
ON se.restId = f1.restId) sef
WHERE g.restId=sef.restId