```sql
1  set Schema 'DSE203Project';
2
3  ALTER table calendar
4  add column season varchar(10) NULL;
5
6  ALTER table calendar
7  add column holidayseason varchar(25) NULL;
8
9  select * from calendar;
10
11 update calendar
12 set season = case when month in (3,4,5) then 'Spring'
13                   when month in (6,7,8) then 'Summer'
14                   when month in (9,10,11) then 'Fall'
15                   when month in (12,1,2) then 'Winter'
16             end,
17     holidayseason = case when month = 12 then 'Christmas_season'
18                     else null
19                     end;
20
21 DROP  VIEW IS_SALES;
22 CREATE VIEW IS_SALES AS
23 SELECT o.orderid,
24    o.orderdate,
25    o.customerid,
26    c.householdid,
27    c.gender,
28    o.city,
29    o.state,
30    o.zipcode,
31    ol.productid,
32    p.asin,
33    p.nodeid,
34    p.isinstock,
35    p.fullprice,
36    ol.unitprice,
37    ol.numunits,
38    ol.totalprice,
39    o.campaignid,
40    cp.channel campaignchannel,
41    cp.discount campaigndiscount,
42    cp.freeshppingflag campaignfreeshippingflag
43 FROM orders o
44 INNER JOIN orderlines ol
45 ON o.orderid = ol.orderid
46 INNER JOIN products p
47 ON ol.productid = p.productid
48 LEFT OUTER JOIN customers c
49 ON o.customerid = c.customerid
50 LEFT OUTER JOIN campaigns cp
51 ON o.campaignid = cp.campaignid;
52
```

```
53  DROP VIEW IS_SALES_BY_MONTH;
54  CREATE VIEW IS_SALES_BY_MONTH
55  AS
56  SELECT s.nodeid,
57    c.month,
58    c.year,
59    c.season,
60    SUM(s.numunits) total_sales_volume,
61    ROUND(AVG(CAST(s.numunits AS NUMERIC)),4) avg_sales_volume,
62    SUM(CAST(s.totalprice AS NUMERIC)) total_sales_price,
63    ROUND(AVG(CAST(s.totalprice AS NUMERIC)),2) avg_sales_price
64  FROM IS_SALES s
65  INNER JOIN calendar c
66  ON s.orderdate = c.date
67  INNER JOIN
68    (SELECT MAX(dom) tot_days_in_month,
69      MONTH,
70      YEAR
71    FROM calendar
72    GROUP BY MONTH,
73      YEAR
74    ) tdm
75  ON tdm.month = c.month
76  AND tdm.year = c.year
77  GROUP BY s.nodeid,
78    c.MONTH,
79    c.YEAR,
80    c.season;
81
82  create table demandpredictions
83  (demandid integer primary key,
84  nodeid integer,
85  month integer,
86  year integer,
87  season varchar(10),
88  predictedsales integer);
```