## 3.1

```
Execution finished without errors.
Result: query executed successfully. Took 17600ms
At line 2:
CREATE TEMPORARY TABLE owner_year_month AS
SELECT
```

## 3.2

| | year | month | total_spend |
|---|---|---|---|
| 1 | 2015 | 05 | 2934261.76000002 |
| 2 | 2012 | 04 | 2887161.14000001 |
| 3 | 2014 | 05 | 2885980.68000002 |
| 4 | 2012 | 05 | 2846709.99000002 |
| 5 | 2013 | 03 | 2845232.38000001 |

## 3.3

| | month | avg_spend |
|---|---|---|
| 1 | 01 | 232.02 |
| 2 | 02 | 212.3 |
| 3 | 03 | 222.95 |
| 4 | 04 | 224.73 |
| 5 | 05 | 234.33 |

## 3.4

| | zip | total_spend |
|---|---|---|
| 1 | 55405 | 18481598.3 |
| 2 | 55408 | 16844354.55 |
| 3 | 55403 | 10303084.8 |

## 3.5

| | month | avg_spend_55405 | avg_spend_55305 | avg_spend_55116 |
|---|---|---|---|---|
| 1 | 01 | 232.02 | 168.7 | 192.32 |
| 2 | 02 | 212.3 | 154.76 | 187.03 |
| 3 | 03 | 222.95 | 175.86 | 164.54 |
| 4 | 04 | 224.73 | 155.54 | 166.02 |
| 5 | 05 | 234.33 | 161.54 | 166.72 |
| 6 | 06 | 215.97 | 156.12 | 151.95 |

## 3.6

| | owners | years | months | avg_spend | avg_items | avg_item_price |
|---|---|---|---|---|---|---|
| 1 | 27107 | 8 | 12 | 270.07 | 70.3 | 3.84 |

3.7

| | owners | spend_k |
|---|---|---|
| 1 | 2735 | 1971.2 |

3.8

Q1:

| | card_no | total_spend | avg_spend_per_transaction | number_of_shopping_dates | total_trans | last_visit | last_spend |
|---|---|---|---|---|---|---|---|
| 1 | 18736 | 32863.86 | 55.7014576271186 | 590 | 590 | 2017-01-24 | 115.99 |

Q2:

| | card_no | total_spend | avg_spend_per_transaction | number_of_shopping_dates | total_trans | last_visit |
|---|---|---|---|---|---|---|
| 1 | 18736 | 32863.86 | 55.7014576271186 | 590 | 590 | 2017-01-24 |

3.9

| | card_no | total_spend | avg_spend_per_transaction | number_of_shopping_dates | total_trans | last_visit | last_spend |
|---|---|---|---|---|---|---|---|
| 1 | 24944 | 54964.79 | 198.428844765343 | 277 | 277 | 2015-12-15 | 91.6 |
| 2 | 22257 | 52571.02 | 136.903697916667 | 384 | 384 | 2016-01-02 | 35.97 |
| 3 | 24073 | 37840.95 | 135.14625 | 280 | 280 | 2016-10-23 | 34.23 |
| 4 | 21141 | 29757.3 | 101.560750853242 | 293 | 293 | 2016-10-21 | 17.56 |
| 5 | 12090 | 36323.46 | 104.37775862069 | 348 | 348 | 2016-10-13 | 21.62 |
| 6 | 50054 | 51054.4499999998 | 99.1348543689317 | 515 | 515 | 2016-10-19 | 16.43 |

3.10

| | card_no | total_spend | avg_spend_per_transaction | number_of_shopping_dates | total_trans | last_visit | last_spend | owner_zip_code |
|---|---------|-------------|---------------------------|--------------------------|-------------|------------|------------|----------------|
| 1 | 15849 | 41191.59 | 305.122888888889 | 135 | 135 | 2016-09-09 | 27.07 | 55417 |
| 2 | 42333 | 46910.92 | 400.948034188034 | 117 | 117 | 2013-09-22 | 166.8 | 55345 |
| 3 | 40916 | 42048.91 | 400.46580952381 | 105 | 105 | 2013-05-09 | 172.03 | 55406 |
| 4 | 22643 | 36283.89 | 187.030360824742 | 194 | 194 | 2016-05-02 | 13.46 | 55419 |
| 5 | 47865 | 39596.63 | 207.31219895288 | 191 | 191 | 2014-08-07 | 35.86 | 55419 |
| 6 | 36591 | 41110.76 | 214.118541666667 | 192 | 192 | 2012-12-02 | 53.64 | 33487 |