**My SQL Question**

In the SALES details, Customer\_id is the foreign keys pointing to the primary key of PURCHASES made by various customers. Let the name of the database be SALES\_DB.

Table 1. SALES details.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Customer\_id** | **Purchase\_DATE** | **Pay\_Method** | **Time\_Spent** | **Browser** | **Newsletter** | **Voucher** |
| 533807 | 2/8/2021 | 0 | 766 | Other | Not Sub | Used |
| 542855 | 11/11/2021 | 0 | 895 | Safari | Not Sub | Not used |
| 543567 | 5/1/2021 | 2 | 926 | Chrome | Not Sub | Used |
| 517937 | 7/7/2021 | 0 | 760 | Chrome | Not Sub | Not used |
| 536120 | 9/2/2021 | 3 | 846 | Chrome | Not Sub | Used |
| 551167 | 6/7/2021 | 0 | 352 | Chrome | Not Sub | Used |
| 563250 | 10/12/2021 | 2 | 637 | Safari | Not Sub | Used |
| 569452 | 7/10/2021 | 0 | 579 | Chrome | Subscribed | Not used |
| 511853 | 7/4/2021 | 0 | 839 | Chrome | Not Sub | Used |
| 551890 | 6/8/2021 | 2 | 520 | Chrome | Not Sub | Used |
| 550216 | 12/11/2021 | 1 | 821 | Other | Not Sub | Not used |
| 527129 | 11/1/2021 | 1 | 810 | Other | Not Sub | Used |
| 517938 | 8/9/2021 | 1 | 954 | Chrome | Not Sub | Not used |
| 526428 | 8/7/2021 | 3 | 562 | Chrome | Not Sub | Not used |
| 561189 | 6/9/2021 | 1 | 703 | Safari | Not Sub | Not used |
| 526652 | 1/9/2021 | 1 | 222 | Chrome | Not Sub | Used |
| 511381 | 3/11/2021 | 2 | 366 | Chrome | Not Sub | Not used |
| 531739 | 11/2/2021 | 1 | 893 | Chrome | Not Sub | Used |
| 540365 | 5/2/2021 | 1 | 695 | Chrome | Not Sub | Not used |
| 551535 | 1/6/2021 | 3 | 384 | Safari | Subscribed | Used |
| 570046 | 8/12/2021 | 0 | 530 | Chrome | Not Sub | Used |
| 515839 | 11/12/2021 | 2 | 355 | Safari | Not Sub | Not used |
| 540495 | 4/4/2021 | 2 | 630 | Chrome | Not Sub | Not used |
| 558588 | 9/7/2021 | 1 | 905 | Chrome | Not Sub | Used |
| 507228 | 5/10/2021 | 2 | 798 | Other | Subscribed | Not used |
| 517636 | 10/6/2021 | 1 | 156 | Chrome | Not Sub | Not used |
| 526959 | 4/12/2021 | 1 | 505 | Chrome | Not Sub | Used |
| 536784 | 12/7/2021 | 0 | 583 | Chrome | Not Sub | Not used |
| 525248 | 12/3/2021 | 3 | 230 | Chrome | Subscribed | Used |
| 543688 | 8/5/2021 | 0 | 365 | Chrome | Not Sub | Not used |
| 512581 | 9/5/2021 | 1 | 1019 | Safari | Subscribed | Not used |
| 510479 | 2/2/2021 | 2 | 203 | Chrome | Not Sub | Not used |
| 567924 | 4/3/2021 | 0 | 618 | Chrome | Not Sub | Not used |
| 518912 | 5/12/2021 | 0 | 166 | Chrome | Not Sub | Not used |
| 541781 | 12/9/2021 | 3 | 720 | Chrome | Subscribed | Not used |
| 537185 | 7/1/2021 | 0 | 425 | Chrome | Not Sub | Used |
| 564940 | 6/11/2021 | 2 | 299 | Safari | Not Sub | Used |
| 512921 | 1/1/2021 | 2 | 304 | Chrome | Not Sub | Used |
| 568091 | 2/4/2021 | 2 | 888 | Other | Not Sub | Not used |
| 533769 | 6/10/2021 | 0 | 613 | Chrome | Not Sub | Not used |
| 537968 | 12/10/2021 | 2 | 500 | Safari | Subscribed | Not used |
| 559328 | 6/5/2021 | 0 | 543 | Chrome | Not Sub | Used |
| 544712 | 8/10/2021 | 3 | 413 | Safari | Not Sub | Not used |
| 515087 | 7/5/2021 | 0 | 414 | Safari | Subscribed | Used |
| 552374 | 2/5/2021 | 0 | 900 | Chrome | Not Sub | Used |
| 529121 | 2/12/2021 | 3 | 1021 | Chrome | Subscribed | Not used |
| 504486 | 12/6/2021 | 0 | 723 | Chrome | Subscribed | Not used |
| 530653 | 2/3/2021 | 3 | 349 | Safari | Not Sub | Used |
| 552217 | 2/11/2021 | 3 | 736 | Chrome | Not Sub | Not used |
| 523404 | 11/8/2021 | 2 | 664 | Chrome | Not Sub | Not used |
| 564105 | 1/3/2021 | 0 | 955 | Chrome | Not Sub | Not used |
| 504655 | 1/11/2021 | 0 | 912 | Chrome | Not Sub | Not used |
| 514880 | 9/8/2021 | 1 | 676 | Chrome | Subscribed | Not used |
| 538667 | 3/5/2021 | 3 | 400 | Chrome | Subscribed | Not used |
| 512549 | 8/3/2021 | 0 | 138 | Chrome | Not Sub | Not used |
| 523893 | 10/8/2021 | 2 | 855 | Chrome | Subscribed | Not used |
| 548917 | 9/9/2021 | 1 | 969 | Chrome | Not Sub | Not used |
| 539157 | 1/4/2021 | 0 | 538 | Chrome | Not Sub | Not used |
| 553725 | 3/12/2021 | 0 | 758 | Chrome | Not Sub | Not used |
| 561611 | 6/6/2021 | 2 | 1017 | Safari | Not Sub | Not used |
| 550799 | 3/1/2021 | 1 | 415 | Safari | Not Sub | Not used |
| 532644 | 1/8/2021 | 2 | 554 | Chrome | Subscribed | Used |
| 528085 | 6/3/2021 | 1 | 566 | Chrome | Not Sub | Not used |
| 554589 | 5/6/2021 | 1 | 499 | Chrome | Subscribed | Used |
| 535673 | 11/4/2021 | 0 | 603 | Safari | Not Sub | Not used |
| 561725 | 10/2/2021 | 3 | 561 | Chrome | Not Sub | Not used |
| 534874 | 5/8/2021 | 0 | 992 | Chrome | Not Sub | Used |
| 522407 | 12/4/2021 | 0 | 545 | Chrome | Not Sub | Not used |
| 568973 | 9/4/2021 | 1 | 678 | Chrome | Not Sub | Not used |
| 539655 | 3/10/2021 | 2 | 427 | Chrome | Not Sub | Not used |
| 519016 | 5/3/2021 | 1 | 555 | Chrome | Subscribed | Used |
| 524536 | 3/4/2021 | 1 | 765 | Chrome | Not Sub | Used |
| 559371 | 11/5/2021 | 2 | 769 | Chrome | Not Sub | Not used |
| 532915 | 11/10/2021 | 0 | 461 | Chrome | Subscribed | Used |
| 539440 | 6/4/2021 | 3 | 785 | Chrome | Not Sub | Not used |
| 553704 | 3/9/2021 | 1 | 774 | Safari | Not Sub | Not used |
| 535475 | 4/7/2021 | 2 | 656 | Chrome | Not Sub | Used |
| 519112 | 8/11/2021 | 1 | 274 | Other | Not Sub | Not used |
| 553743 | 9/1/2021 | 2 | 172 | Safari | Not Sub | Not used |
| 504866 | 9/3/2021 | 0 | 386 | Chrome | Not Sub | Not used |
| 544641 | 1/5/2021 | 1 | 906 | Chrome | Not Sub | Not used |
| 527859 | 10/7/2021 | 0 | 471 | Chrome | Not Sub | Not used |
| 559265 | 9/12/2021 | 1 | 416 | Chrome | Not Sub | Not used |
| 511995 | 2/6/2021 | 2 | 1030 | Chrome | Not Sub | Not used |
| 527319 | 12/5/2021 | 2 | 548 | Safari | Not Sub | Not used |
| 568561 | 8/4/2021 | 0 | 594 | Safari | Not Sub | Not used |
| 542459 | 10/9/2021 | 2 | 978 | Safari | Subscribed | Used |
| 544578 | 5/4/2021 | 0 | 168 | Chrome | Subscribed | Not used |
| 516809 | 3/2/2021 | 1 | 144 | Chrome | Not Sub | Used |
| 557025 | 7/9/2021 | 2 | 685 | Chrome | Not Sub | Not used |
| 528024 | 8/2/2021 | 2 | 1078 | Chrome | Not Sub | Used |
| 557574 | 7/3/2021 | 1 | 1056 | Chrome | Not Sub | Not used |
| 523762 | 4/6/2021 | 2 | 330 | Chrome | Not Sub | Not used |
| 561755 | 4/9/2021 | 1 | 692 | Chrome | Subscribed | Not used |
| 517867 | 2/7/2021 | 0 | 272 | Chrome | Not Sub | Used |
| 556220 | 7/11/2021 | 2 | 675 | Chrome | Not Sub | Not used |
| 526490 | 7/12/2021 | 3 | 680 | Safari | Not Sub | Not used |
| 553083 | 11/3/2021 | 2 | 189 | Chrome | Not Sub | Not used |
| 552977 | 10/5/2021 | 0 | 266 | Chrome | Not Sub | Used |

Table 2. PURCHASES Made customer.

|  |  |
| --- | --- |
| **Customer\_id** | **N\_Purchases** |
| 533807 | 7 |
| 542855 | 1 |
| 543567 | 7 |
| 517937 | 7 |
| 536120 | 1 |
| 551167 | 5 |
| 563250 | 2 |
| 569452 | 5 |
| 511853 | 2 |
| 551890 | 3 |
| 550216 | 2 |
| 527129 | 1 |
| 517938 | 2 |
| 526428 | 7 |
| 561189 | 6 |
| 526652 | 4 |
| 511381 | 4 |
| 531739 | 5 |
| 540365 | 1 |
| 551535 | 7 |
| 570046 | 6 |
| 515839 | 1 |
| 540495 | 6 |
| 558588 | 3 |
| 507228 | 7 |
| 517636 | 7 |
| 526959 | 5 |
| 536784 | 3 |
| 525248 | 6 |
| 543688 | 2 |
| 512581 | 5 |
| 510479 | 1 |
| 567924 | 4 |
| 518912 | 7 |
| 541781 | 5 |
| 537185 | 6 |
| 564940 | 1 |
| 512921 | 1 |
| 568091 | 5 |
| 533769 | 1 |
| 537968 | 4 |
| 559328 | 5 |
| 544712 | 6 |
| 515087 | 3 |
| 552374 | 5 |
| 529121 | 3 |
| 504486 | 1 |
| 530653 | 6 |
| 552217 | 4 |
| 523404 | 3 |
| 564105 | 2 |
| 504655 | 4 |
| 514880 | 2 |
| 538667 | 2 |
| 512549 | 2 |
| 523893 | 5 |
| 548917 | 2 |
| 539157 | 5 |
| 553725 | 3 |
| 561611 | 7 |
| 550799 | 2 |
| 532644 | 7 |
| 528085 | 6 |
| 554589 | 6 |
| 535673 | 5 |
| 561725 | 2 |
| 534874 | 7 |
| 522407 | 3 |
| 568973 | 7 |
| 539655 | 1 |
| 519016 | 7 |
| 524536 | 1 |
| 559371 | 6 |
| 532915 | 2 |
| 539440 | 6 |
| 553704 | 7 |
| 535475 | 2 |
| 519112 | 4 |
| 553743 | 7 |
| 504866 | 5 |
| 544641 | 5 |
| 527859 | 3 |
| 559265 | 3 |
| 511995 | 1 |
| 527319 | 3 |
| 568561 | 4 |
| 542459 | 7 |
| 544578 | 4 |
| 516809 | 7 |
| 557025 | 2 |
| 528024 | 4 |
| 557574 | 1 |
| 523762 | 7 |
| 561755 | 5 |
| 517867 | 5 |
| 556220 | 2 |
| 526490 | 6 |
| 553083 | 3 |
| 552977 | 3 |

Table 3 REVENUE Earned.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Age** | **Gender** | **Revenue\_Total** | **N\_Purchases** | **Purchase\_VALUE** |
| 20 | MALE | 59.9 | 7 | 58.702 |
| 27 | MALE | 59.7 | 1 | 59.7 |
| 35 | FEMALE | 59.5 | 7 | 19.04 |
| 52 | MALE | 59.3 | 7 | 19.569 |
| 45 | FEMALE | 59.1 | 1 | 59.1 |
| 39 | MALE | 58.9 | 5 | 3.534 |
| 43 | MALE | 58.7 | 2 | 31.698 |
| 55 | MALE | 58.5 | 5 | 15.21 |
| 62 | MALE | 58.3 | 2 | 0.583 |
| 54 | FEMALE | 58.1 | 3 | 15.687 |
| 29 | FEMALE | 57.9 | 2 | 8.106 |
| 48 | MALE | 57.7 | 1 | 57.7 |
| 33 | MALE | 57.5 | 2 | 31.05 |
| 19 | FEMALE | 57.3 | 7 | 45.267 |
| 24 | MALE | 57.1 | 6 | 51.961 |
| 44 | FEMALE | 56.7 | 4 | 51.597 |
| 51 | MALE | 56.5 | 4 | 15.255 |
| 44 | FEMALE | 56.3 | 5 | 22.52 |
| 23 | FEMALE | 56.1 | 1 | 56.1 |
| 59 | MALE | 55.9 | 7 | 13.416 |
| 38 | MALE | 55.7 | 6 | 11.14 |
| 61 | FEMALE | 55.5 | 1 | 55.5 |
| 47 | FEMALE | 55.3 | 6 | 42.028 |
| 31 | FEMALE | 55.1 | 3 | 38.57 |
| 33 | FEMALE | 54.9 | 7 | 2.196 |
| 45 | FEMALE | 54.7 | 7 | 10.393 |
| 29 | FEMALE | 54.5 | 5 | 23.98 |
| 32 | FEMALE | 54.3 | 3 | 33.123 |
| 60 | FEMALE | 54.1 | 6 | 38.952 |
| 42 | FEMALE | 53.9 | 2 | 15.631 |
| 54 | FEMALE | 53.7 | 5 | 48.867 |
| 49 | FEMALE | 53.5 | 1 | 53.5 |
| 29 | FEMALE | 53.3 | 4 | 43.173 |
| 24 | MALE | 53.1 | 7 | 3.186 |
| 30 | MALE | 52.9 | 5 | 29.095 |
| 51 | FEMALE | 52.7 | 6 | 32.674 |
| 31 | FEMALE | 52.5 | 1 | 52.5 |
| 63 | FEMALE | 52.3 | 1 | 52.3 |
| 51 | MALE | 52.1 | 5 | 26.571 |
| 41 | MALE | 51.7 | 1 | 51.7 |
| 32 | FEMALE | 51.1 | 4 | 29.638 |
| 30 | MALE | 50.9 | 5 | 45.301 |
| 37 | FEMALE | 50.1 | 6 | 5.511 |
| 60 | FEMALE | 49.9 | 3 | 29.441 |
| 34 | FEMALE | 49.7 | 5 | 31.311 |
| 27 | MALE | 49.5 | 3 | 22.275 |
| 53 | MALE | 48.9 | 1 | 48.9 |
| 60 | FEMALE | 48.7 | 6 | 39.447 |
| 29 | FEMALE | 48.3 | 4 | 9.66 |
| 57 | FEMALE | 48.1 | 3 | 19.721 |
| 50 | FEMALE | 47.9 | 2 | 32.093 |
| 19 | MALE | 47.5 | 4 | 45.125 |
| 19 | FEMALE | 46.1 | 2 | 19.823 |
| 27 | FEMALE | 45.9 | 2 | 30.294 |
| 62 | MALE | 45.7 | 2 | 31.533 |
| 61 | FEMALE | 45.3 | 5 | 34.428 |
| 55 | FEMALE | 44.9 | 2 | 14.817 |
| 46 | FEMALE | 44.7 | 5 | 8.493 |
| 46 | FEMALE | 44.3 | 3 | 10.632 |
| 47 | MALE | 44.1 | 7 | 6.615 |
| 19 | MALE | 43.7 | 2 | 29.279 |
| 55 | FEMALE | 43.3 | 7 | 22.083 |
| 29 | FEMALE | 42.7 | 6 | 5.124 |
| 32 | FEMALE | 42.3 | 6 | 38.916 |
| 23 | FEMALE | 41.9 | 5 | 20.95 |
| 53 | MALE | 41.5 | 2 | 39.01 |
| 38 | MALE | 40.9 | 7 | 8.18 |
| 55 | FEMALE | 40.5 | 3 | 26.73 |
| 39 | MALE | 40.1 | 7 | 29.273 |
| 17 | MALE | 40 | 1 | 40 |
| 45 | FEMALE | 39.9 | 7 | 18.753 |
| 23 | MALE | 39.6 | 1 | 39.6 |
| 39 | FEMALE | 39.4 | 6 | 38.612 |
| 40 | FEMALE | 39.2 | 2 | 34.888 |
| 28 | MALE | 39.1 | 6 | 19.55 |
| 36 | FEMALE | 38.8 | 7 | 35.696 |
| 17 | MALE | 38.6 | 2 | 16.598 |
| 38 | MALE | 38.5 | 4 | 21.56 |
| 19 | FEMALE | 38.2 | 7 | 18.718 |
| 21 | MALE | 38.1 | 5 | 22.098 |
| 54 | MALE | 37.8 | 5 | 20.412 |
| 59 | FEMALE | 37.7 | 3 | 34.307 |
| 27 | MALE | 37.6 | 3 | 0.752 |
| 17 | FEMALE | 37.2 | 1 | 37.2 |
| 60 | MALE | 37.1 | 3 | 35.616 |
| 38 | FEMALE | 37 | 4 | 35.89 |
| 45 | FEMALE | 36.3 | 7 | 24.321 |
| 55 | FEMALE | 36.2 | 4 | 34.39 |
| 22 | FEMALE | 35.9 | 7 | 25.13 |
| 23 | FEMALE | 35.7 | 2 | 23.562 |
| 36 | FEMALE | 34.9 | 4 | 28.967 |
| 22 | MALE | 34.7 | 1 | 34.7 |
| 19 | MALE | 34.6 | 7 | 17.3 |
| 49 | FEMALE | 34.3 | 5 | 8.918 |
| 28 | FEMALE | 33.7 | 5 | 20.557 |
| 17 | FEMALE | 33.6 | 2 | 25.2 |
| 37 | MALE | 33.4 | 6 | 6.68 |
| 55 | FEMALE | 33.3 | 3 | 20.646 |
| 51 | FEMALE | 33.1 | 3 | 26.48 |

Questions

1.what is the total revenue generated by all customers?

2. what is the average revenue per customer?

3. How many unique customers are there in the dataset?

4. Find the Maximum number of purchases made by a single customer?

5.what is the average age of customer in the dataset?

6. How does the average revenue differ between male and female customers?

7. what is the age range of customer in the dataset?

8. which age has the highest total revenue?

9.How many males and female are there in dataset?

10. Retrieve the total number of sales transaction record from the “SALES Table”.

11. List all distinct pay method used in the sales transaction.

12. Find the average time spent by customers on the website during their purchase?

13. What is the average number of purchases per customers?

14.what is the total purchases value for all customers combined?

15. what is the total time spent by all customers combined?

16. Retrieve the details of sales transactions where the purchase data is

between '2024-01-01' and '2024-03-22.

17. List all the distinct voucher codes used by customers in the sales transaction

18. Calculate the total sales revenue generated from transactions the

pay method ‘CASH'.

19. Find the average number of purchases made per day across all customer?

20. Retrieve the customer IDS and their corresponding purchase dates for

purchases where the number of items purchased (N\_purchase) is greater than 10.