Answer1

select page\_id, visit\_date , count(\*)  
from page\_act\_log   
group by page\_id, visit\_date   
order by page\_id

Answer 2

* 1. Highest sale is in the month of March 2014

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| RowID | OrderID | OrderDate | CustomerID | ProductID | ProductName | Sales |
| 2698 | CA-2014-145317 | 18/3/2014 | SM-20320 | TEC-MA-10002412 | Cisco TelePresence System EX90 Videoconferencing Unit | 22638.48 |

There seems to be a seasonal effect. Every Year sales amount seems to be increasing at the end of the year. This is based on below graph prepared on the dataset given

Here chart shows the total sales amount from 1st month to 12th month every year.

And it is evident that sales is growing at the end of the year, and every time sales drops in 1st month of the year

Refer to attach excel Sheet 2

Yes, there is no definite answer as product can be selected based on highest quantity sold OR highest amount of sales for a product.

Based on which below is the illustration.

* + 1. higest qunatity for all 5 years

|  |  |  |
| --- | --- | --- |
| **Product ID** | **Sum of Sales** | **Count of Sales2** |
| OFF-PA-10001970 | 2167.348 | 19 |

* + 1. higest revenue product for 5 years

|  |  |  |
| --- | --- | --- |
| **Procut ID** | **Sum of Sales** | **Count of Sales2** |
| TEC-CO-10004722 | 61599.824 | 5 |

Below are 2 products which are best for last 2 years based on sales quantity(in red)

The rationale is for the product in row 1, sales in 2016 was very high but sales in 2017 drops drastically, where as for the products in row 2 and 3 have better performance

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Sum of Sales** |  |  |  |  | **Count of Sales2** |  |  |  |  | **Total Sum of Sales** | **Total Count of Sales2** |
| **Row Labels** | **2014** | **2015** | **2016** | **2017** | **(blank)** | **2014** | **2015** | **2016** | **2017** | **(blank)** |  |  |
| FUR-TA-10001095 |  | 244.006 | 5176.413 | 2788.64 |  |  | 1 | 9 | 3 |  | 8209.059 | 13 |
| **TEC-AC-10003832** | **851.982** | **617.976** | **5970.5** | **3763.298** |  | **2** | **1** | **8** | 7 |  | 11203.756 | 18 |
| **FUR-FU-10004864** | **76.728** |  | **1303.002** | **455.082** |  | **1** |  | **8** | 4 |  | 1834.812 | 13 |

* 1. Products having product code starting with OFF are often sold together based on the pivot chart created in sheet 4. This is only based on eye ball lookup of the data

Another option which is possible via SQL query is to use list aggregate function where grouping on order ID and customer id will be done, and all the products will be concatenated and kept in list aggregated column.

Post that we can do a count(\*) on this list aggregated column to check the maximum number of combination we have, only we need to remember is we d a sorting of the data before using list aggregate. Hope this should solve the query

* 1. As noticed earlier that sales are getting reduced at the end of every calendar year, so sales team need to focus on last 6 months sale. They need to focus on startegy to increase sales at the end of the year
  2. There can be dashboard which can help sales team:
     1. Products mostly sold during year end
     2. Track sales growth of new products launched
     3. Category of product sold highest, to provide areas where more focus is needed
     4. We can also look on average sales figure in terms of quantity and dollar value to find out which products are not not performing at basic average level