**SQL Workshop**

1. The table below records all the page visits from a website. For every visitor a unique ID is generated and every time a visitor comes to the website, a unique visit ID is generated for that visitor. All the pages viewed during a visit are numbered sequentially along with the timestamp of that event.

**PAGE\_VISITS\_DATA**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **VISITOR\_ID** | **VISIT\_ID** | **VISIT\_PAGE\_NUM** | **DATE\_TIME** | **PAGE\_NAME** |
| 1 | 1 | 1 | 20-11-2013 04:26:05 | Home |
| 1 | 1 | 2 | 20-11-2013 04:26:47 | Search |
| 1 | 1 | 3 | 20-11-2013 04:27:29 | Search |
| 1 | 1 | 4 | 20-11-2013 04:28:11 | Product |
| 1 | 1 | 5 | 20-11-2013 04:28:53 | Product |
| 1 | 1 | 6 | 20-11-2013 04:29:35 | Shopping Cart |
| 1 | 1 | 7 | 20-11-2013 04:30:17 | Home |
| 1 | 2 | 1 | 06-09-2013 09:51:49 | Home |
| 1 | 2 | 2 | 06-09-2013 09:51:59 | Product |
| 1 | 2 | 3 | 06-09-2013 09:52:09 | Product |
| 1 | 3 | 1 | 17-04-2014 00:27:01 | Home |
| 1 | 3 | 2 | 17-04-2014 00:29:01 | Search |
| 1 | 3 | 3 | 17-04-2014 00:31:01 | Product |
| 1 | 3 | 4 | 17-04-2014 00:31:09 | Shopping Cart |
| 2 | 1 | 1 | 20-05-2014 12:49:19 | Home |
| 2 | 1 | 2 | 20-05-2014 12:49:50 | Search |
| 2 | 1 | 3 | 20-05-2014 12:50:21 | Product |
| 2 | 1 | 4 | 20-05-2014 12:50:52 | Product |
| 2 | 1 | 5 | 20-05-2014 12:51:23 | Category |
| 2 | 1 | 6 | 20-05-2014 12:51:54 | Shopping Cart |

The requirement is to find all the visits where the visitor has followed the below-mentioned pattern.

1. Search page.
2. 1 or more product pages.
3. Shopping cart page.

Please make sure that the query considers only the visits where the visitor has not viewed any other pages in between the above-mentioned pattern of page views.

Along with the number of visits that exhibit this pattern, also display the % of overall visits that exhibit this pattern. Also group the results by a monthly basis.

**Note:** For this workshop, please assume that no visits will fall into 2 different months. Every visit will have only 1 month corresponding to it. Also assume that no visit will exhibit the pattern more than once.

**Expected Result:**

|  |  |  |
| --- | --- | --- |
| **MONTH** | **NO\_OF\_VISITS\_WITH\_THE\_PATTERN** | **PERCENT\_OF\_OVERALL\_VISITS** |
| 09-2013 | 0 | 0% |
| 11-2013 | 1 | 100% |
| 04-2014 | 1 | 100% |
| 05-2014 | 0 | 0% |

**Script for creating the source table:**

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2.