**Data to Destiny**

**Introduction**

Data to Destiny is a ed-tech startup that primarily focuses on providing online education courses for Data Analytics. The website based platform is launched on April01,2023 and offers comprehensive learning experience guiding students from basics to advanced learning techniques. The goal of the organization is to bridge the gap between learning and real-world applications enabling the students to achieve great heights in Data Analytics Industry. The organization has the pride on leveraging data-driven insights to implement strategic decisions and improve the organizational efficiency. In line with this Vision the top management officials has initiated detailed analysis project to understand and optimize various aspects of the business including user engagement, course popularity, marketing effectiveness and overall sales performance.

**Objectives**

The main aim of the analysis is to provide the organization with data driven insights on how to improve the marketing strategies that can engage the users for the better course reach that can directly impacts the overall sales performance.

**Datasets to be Used**

* april\_data
* may\_data
* june\_data
* campaigns
* course\_price
* campaign\_metrics\_june
* campaign\_metrics\_july
* july\_data\_20230715
* july\_data\_20230731

**Product Analysis**

**Course S1B1(Statistics)**

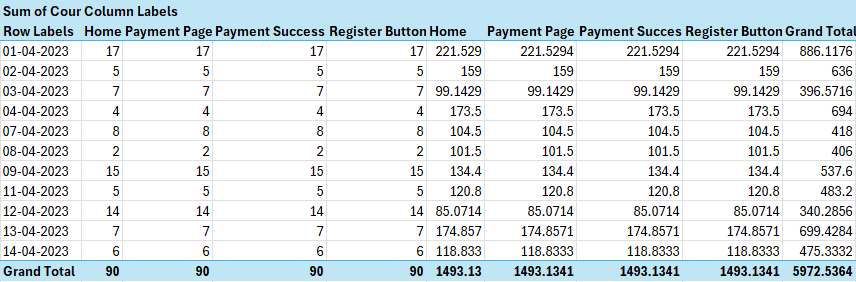
* Registrations timeline - 01April2023 till 14April2023.
* Dataset to be used - april\_data
* Analysis to be done - Website Traffic & Registration Data

**Data Cleaning and Preparation**

* + Removing NULL and Empty Values from CourseID Column.

**Website Traffic Analysis and Insights**

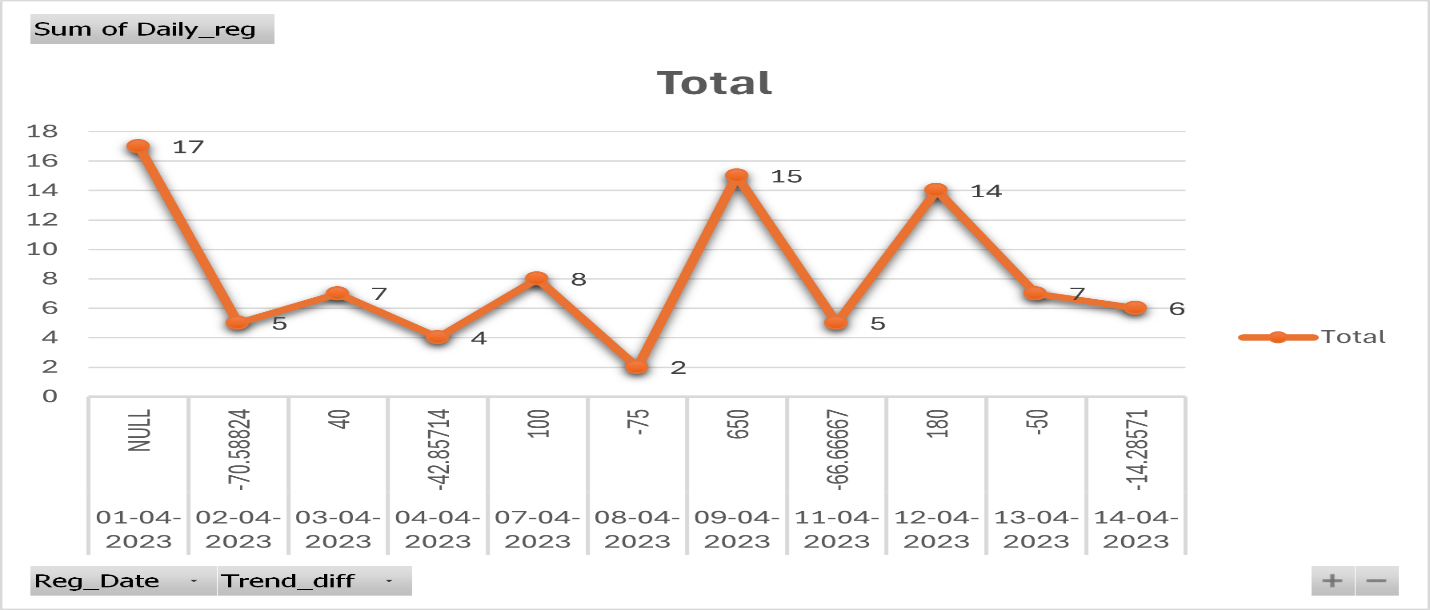
* + Daily Unique Visitors on Each Page and Avg time a user spent on each page



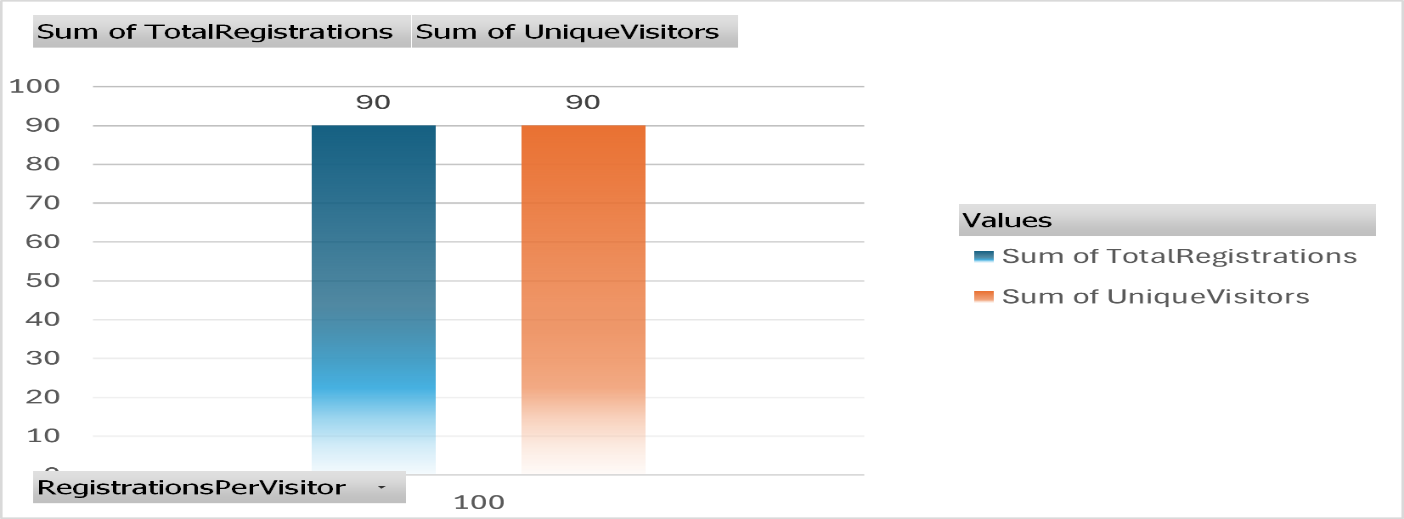
* + - Total users visited and Registered = 90 users
    - Maximum Registration = 17 users - 01April2023
    - Minimum Registration = 02 users - 08April2023
    - Maximum Avg time spent = 221.52(01April2023) - Total Users = 17 users
    - Minimum Avg time spent = 101.5(08April2023) - Total Users = 02 users
    - Maximum time spent in website = 886.1176(01April2023) – Total Users = 17 users
    - Minimum time spent in website = 340.28(12April2023) – Total Users = 14 users
    - Total time spent by 90 users = 5972.5364
    - Avg total time spent by 90 users = 66.36
    - Avg time spent on each page = 1493.13

**Registration Data Analysis and Insights**

* + **Total number of Registration with daily trend**



* + - Total users registered = 90 users
    - Highest Downfall in Registration = 02 users(08April2023)
    - Lowest Downfall in Registration = 01 user(14April2023)
    - Highest Peak in Registration = 17 users(01April2023)
    - Lowest Peak in Registration = 07 users(03April2023)
    - Highest +ve trend Difference = 02 users(08April2023) to 15 users(09April2023) : 650%
    - Lowest +ve trend Difference = 05 users(02April2023) to 07 users(03April2023) : 40%
    - Highest -ve trend Difference = 08 users(07April2023) to 02 users(08April2023) : 75%
    - Lowest -ve trend Difference = 07 users(13April2023) to 06 users(14April2023) : 14.28%
  + **Conversion Rates**



* + - Total no of unique visitors visited the course = 90 users
    - Total no of visitors registered the course = 90 users

**Course SB2(Statistics)**

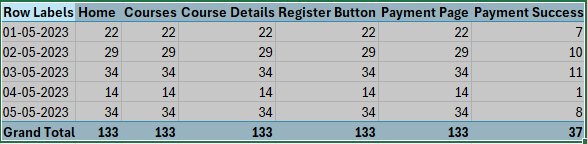
* Registrations timeline - 17April2023 till 05May2023.
* Course Date – 06May2023
* Dataset to be used - may\_data
* Analysis to be done - Website Traffic & Registration Data
* Date Range - Starting from 01May2023

**Data Cleaning and Preparation**

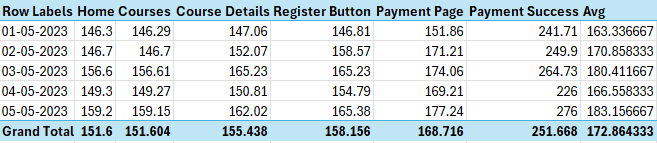
* + Removing NULL Values from CourseID Column in may\_data
  + Adding 2 pages to visitedpages such as courses and course details to april\_data to match with the visitedpages of may\_data

**Website Traffic Analysis and Insights**

* + Daily Unique Visitors on Each Page and Avg time a user spent on each page



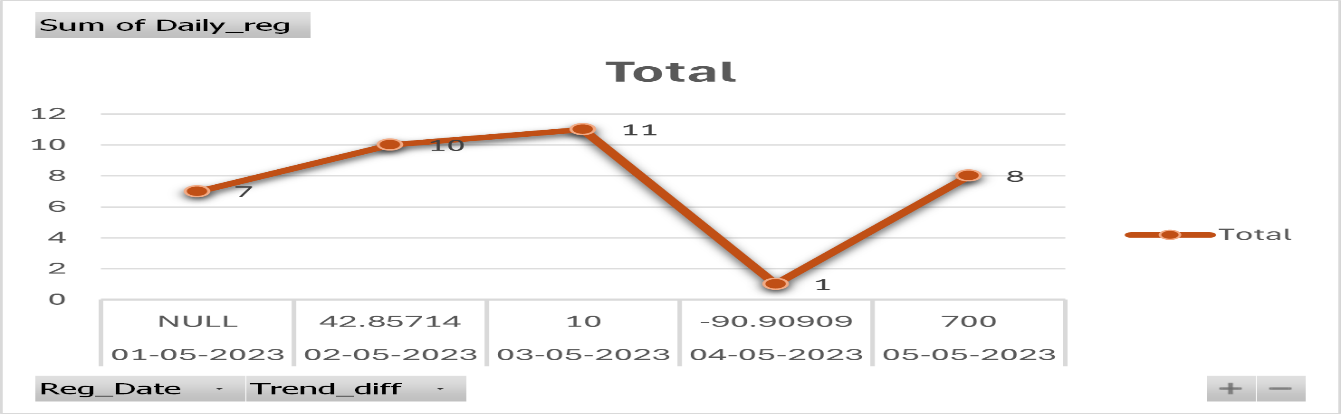
* + - Total users visited = 133 users
    - Total uses registered = 37 users
    - Maximum Registration = 10 users - 02May2023
    - Minimum Registration = 01 users - 04May2023



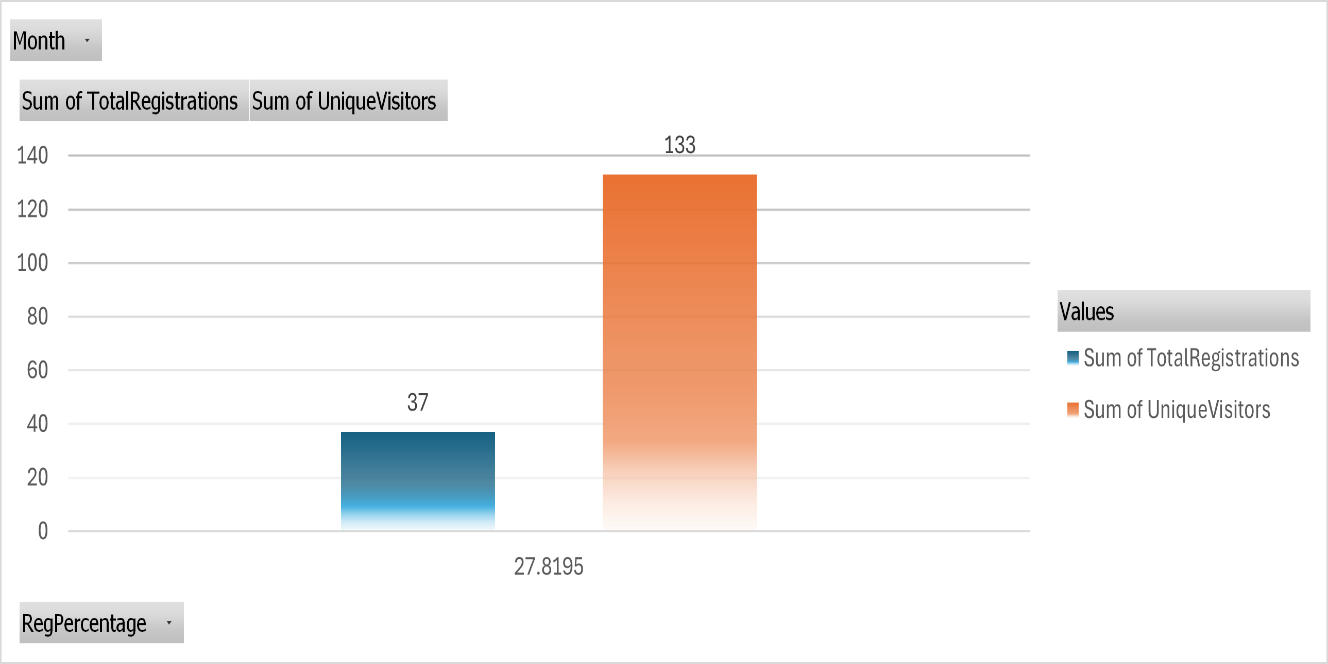
* Highest avg time spent by a user = 183.15(05May2023) - 08 users
* Lowest avg time spent by a user = 163.33(01May2023) – 07 users
* Avg time spent by 133 visiting users – 157.09
* Avg time spent by 37 registered users – 172.86

**Registration Data Analysis and Insights**

* + **Total number of Registration with daily trend**



* + - Total users registered = 37 users
    - Highest Downfall in Registration = 01 users(04May2023)
    - Highest Peak in Registration = 08 users(05May2023)
    - Lowest Peak in Registration = 01 users(03Mayl2023)
    - Highest +ve trend Difference = 01 users(04May2023) to 08 users(05May2023) : 700%
    - Lowest +ve trend Difference = 10 users(02May2023) to 11 users(03May2023) : 10%
    - Highest -ve trend Difference = 11 users(03May2023) to 01 users(04May2023) : -90.9%
  + **Conversion Rates**



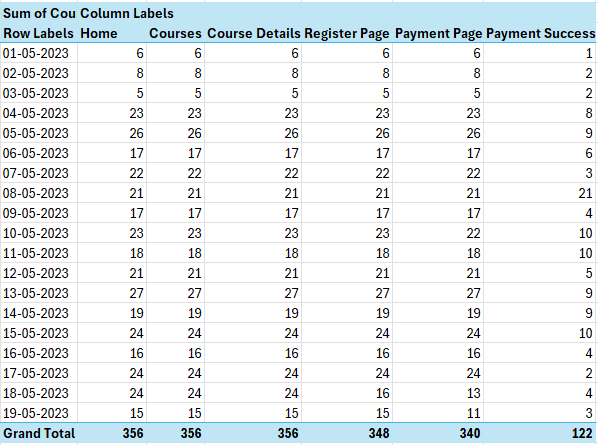
* + - Total no of unique visitors visited the course = 133 users
    - Total no of visitors registered the course = 37 users

**Course SB3(Statistics)**

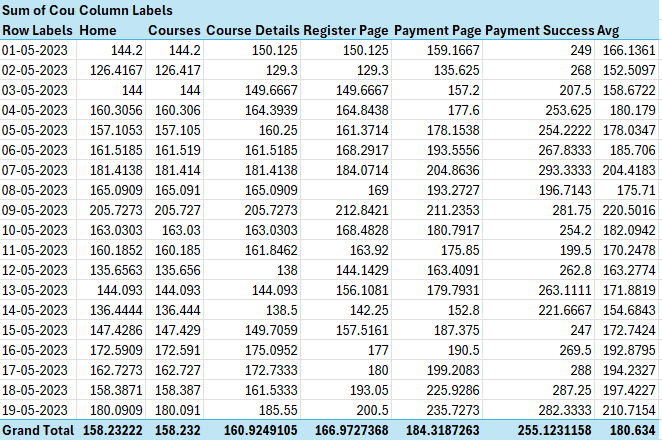
* Registrations timeline – 01May2023 till 19May2023.
* Course Date – 20May2023
* Dataset to be used - may\_data
* Analysis to be done - Website Traffic & Registration Data
* Date Range - Starting from 01May2023

**Website Traffic Analysis and Insights**

* + Daily Unique Visitors on Each Page and Avg time a user spent on each page



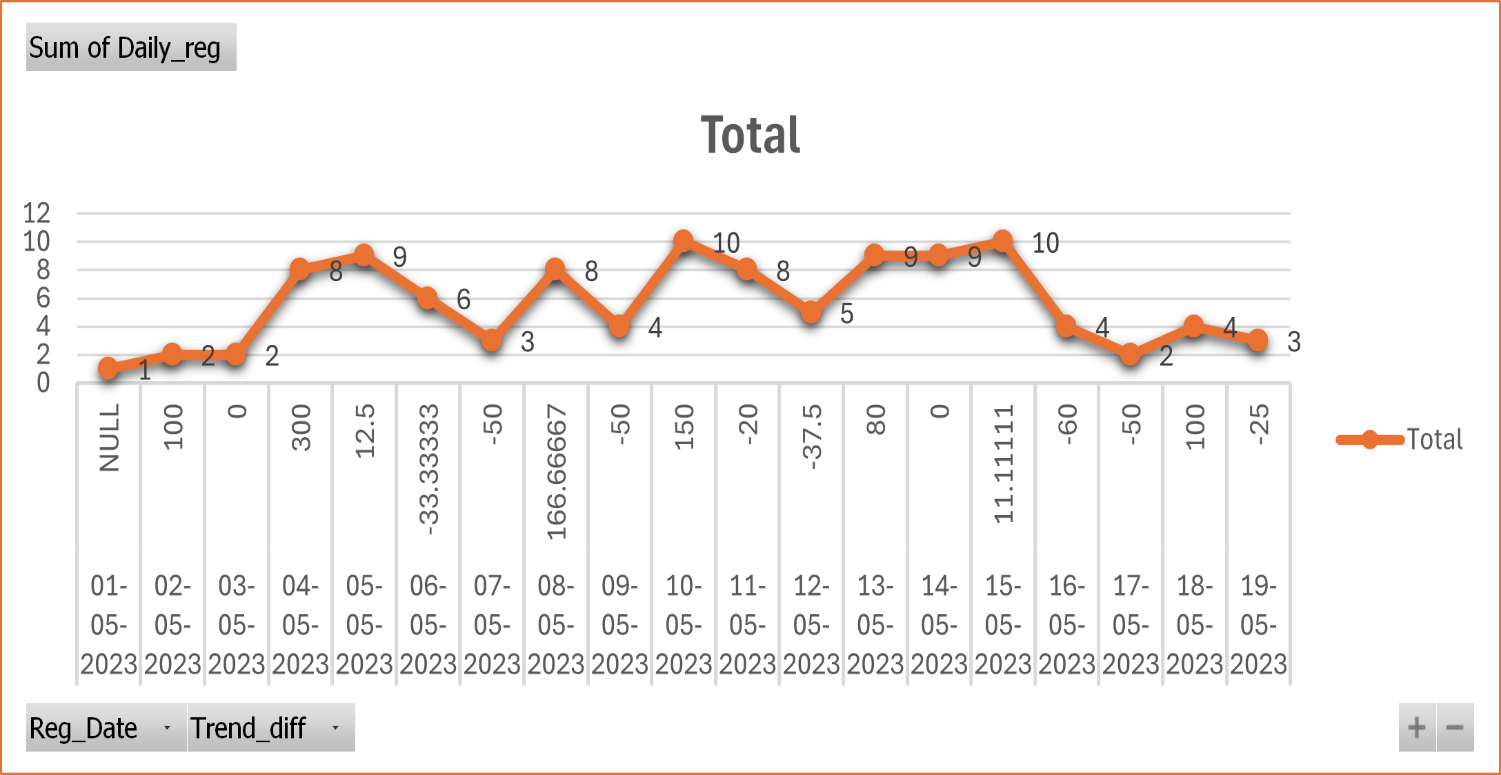
* + - Total users visited = 340 users
    - Total uses registered = 122 users
    - Maximum Registration = 27 users - 13May2023
    - Minimum Registration = 05 users - 03May2023



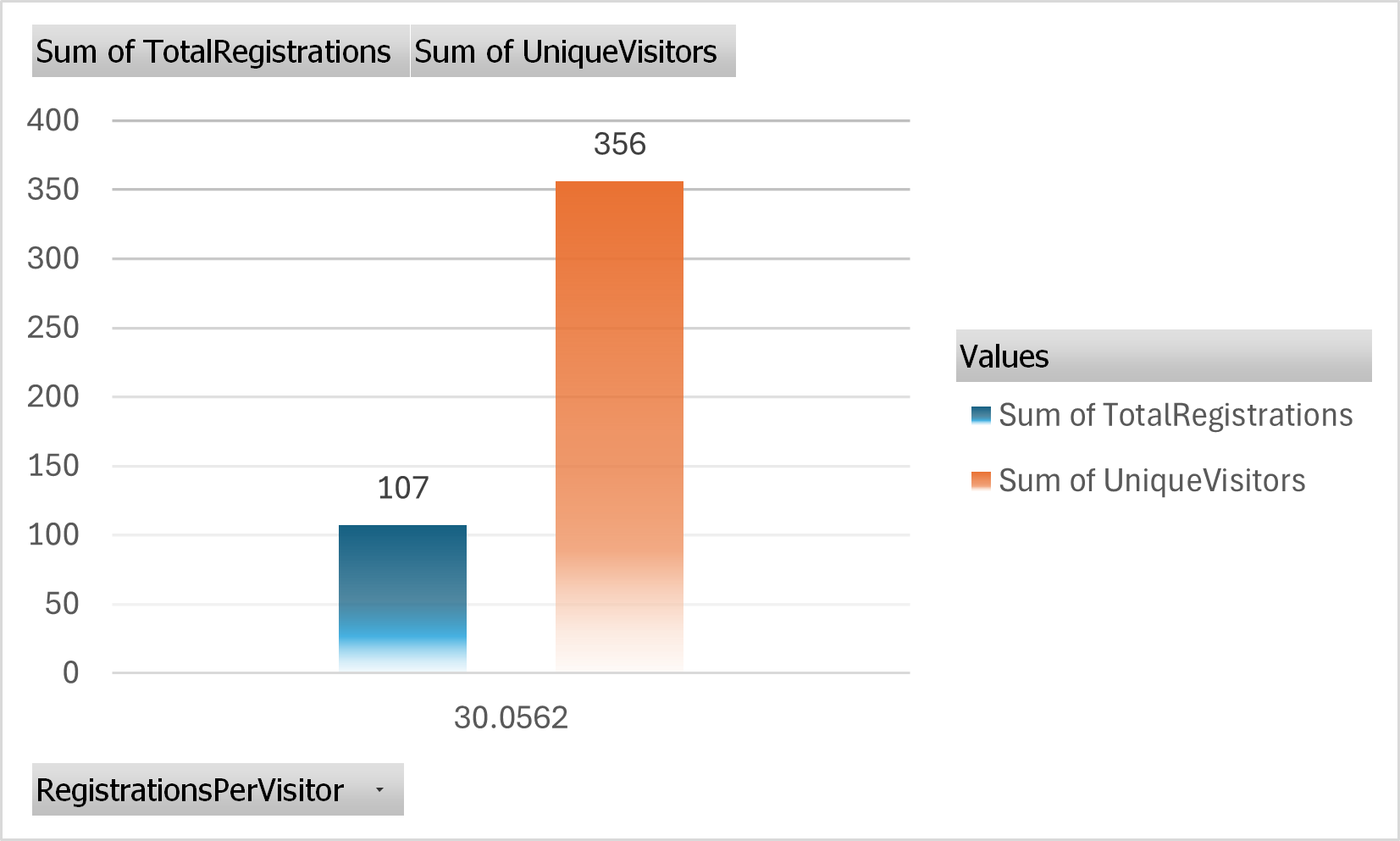
* Highest avg time spent by a user = 220.50(09May2023) - 04 users
* Lowest avg time spent by a user = 152.50(02May2023) – 02 users
* Avg time spent by 340 visiting users – 165.732
* Avg time spent by 122 registered users – 180.63

**Registration Data Analysis and Insights**

* + **Total number of Registration with daily trend**



* + - Total users registered = 122 users
    - Highest Downfall in Registration = 04 users(16May2023)
    - Lowest Downfall in Registration = 08 user(11May2023)
    - Highest Peak in Registration = 08 users(04May2023)
    - Lowest Peak in Registration = 10 users(15May2023)
    - Highest +ve trend Difference = 02 users(03Mayl2023) to 08 users(04May2023) : 300%
    - Lowest +ve trend Difference = 09 users(14May2023) to 10 users(15May2023) : 11.11%
    - Highest -ve trend Difference = 10 users(15May2023) to 04 users(16May2023) : -60%
    - Lowest -ve trend Difference = 10 users(10May2023) to 08 users(11May2023) : -20%
  + **Conversion Rates**



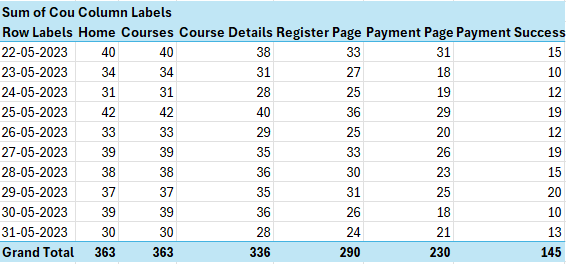
* + - Total no of unique visitors visited the course = 356 users
    - Total no of visitors registered the course = 107 users

**Course SB4(Statistics)**

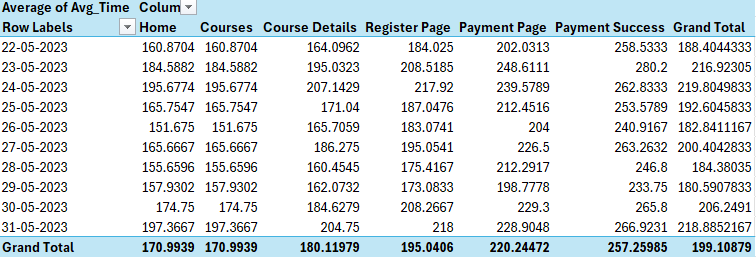
* Registrations timeline – 22May2023 till 31May2023.
* Course Date – 03June2023
* Dataset to be used - may\_data
* Analysis to be done - Website Traffic & Registration Data
* Date Range - Starting from 22May2023

**Website Traffic Analysis and Insights**

* + **Daily Unique Visitors on Each Page and Avg time a user spent on each page**



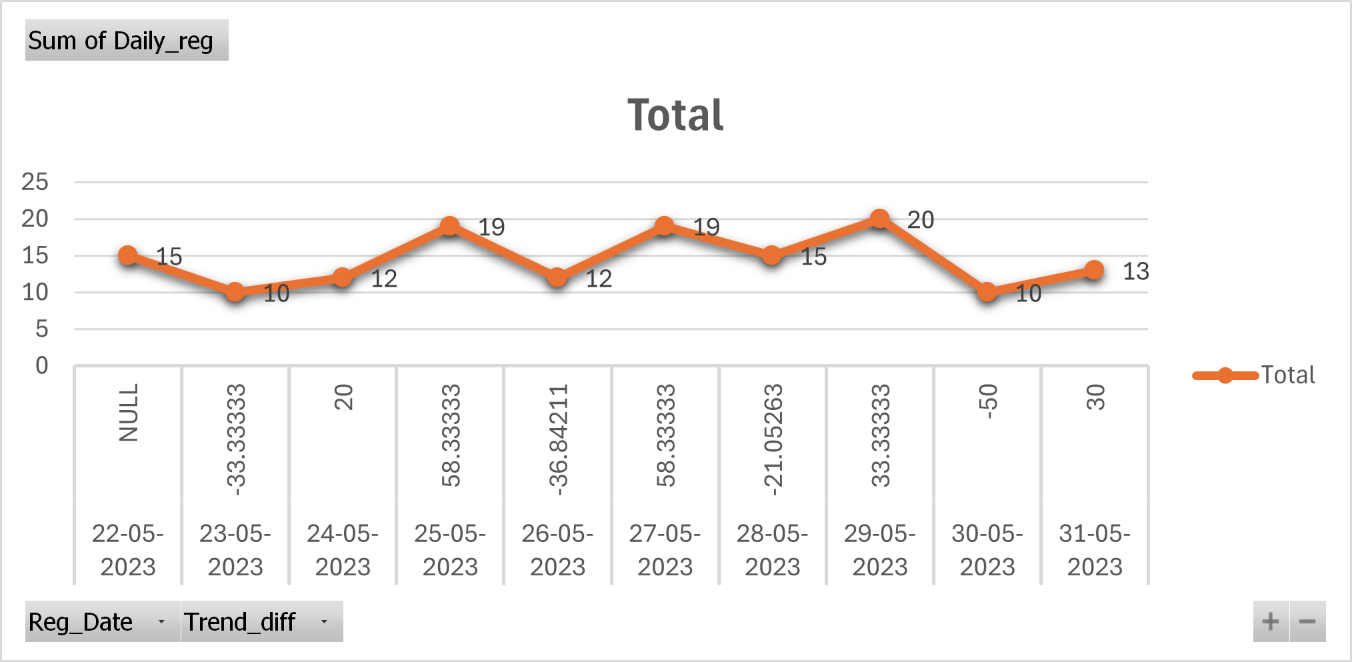
* + - Total users visited = 230 users
    - Total uses registered = 145 users
    - Maximum Registration = 20 users - 29May2023
    - Minimum Registration = 10 users - 23May2023 & 30May2023



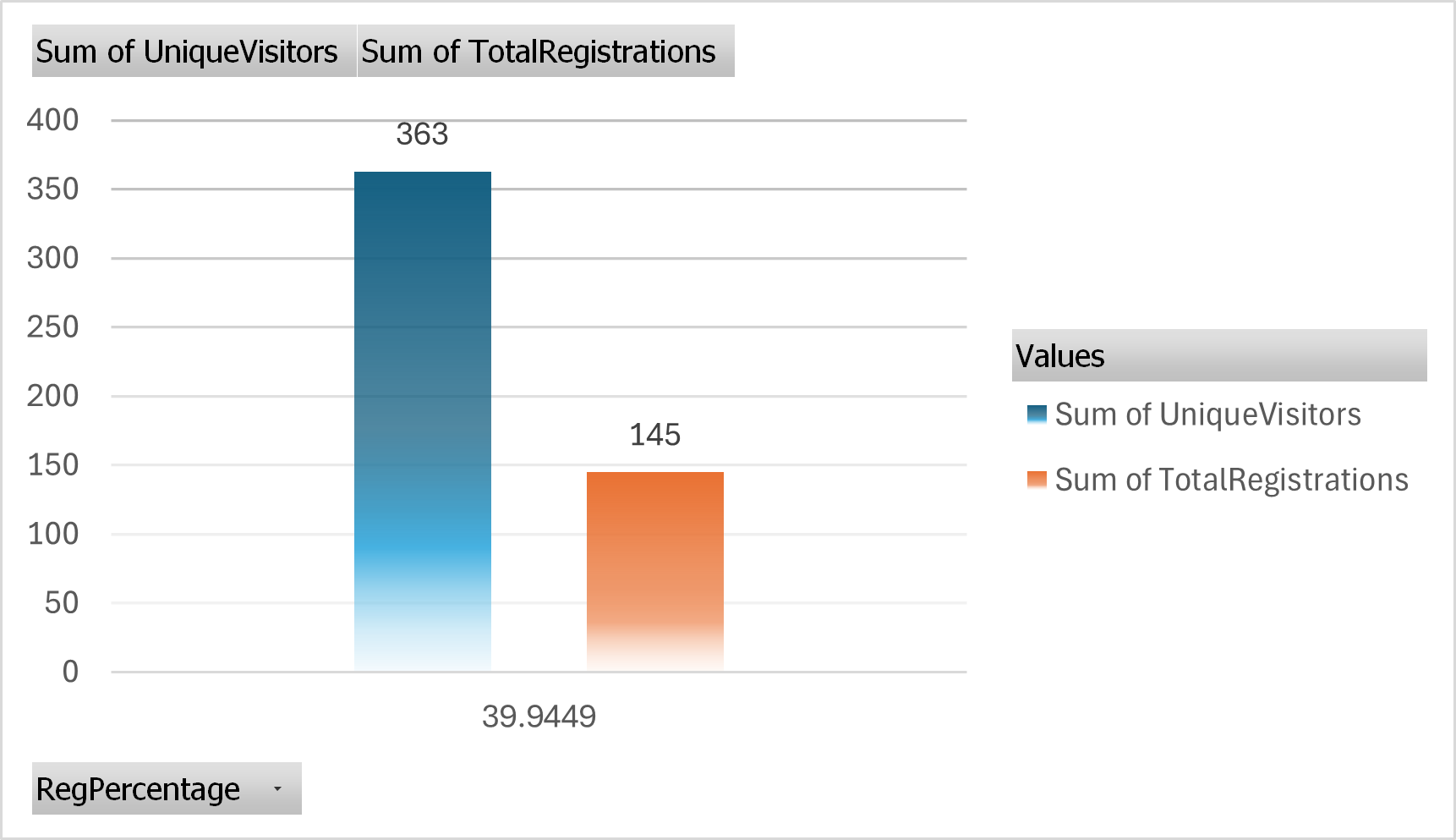
* Highest avg time spent by a user = 219.80(24May2023) - 12 users
* Lowest avg time spent by a user = 180.59(29May2023) – 20 users
* Avg time spent by 230 visiting users – 187.47
* Avg time spent by 145 registered users – 199.10

**Registration Data Analysis and Insights**

* + **Total number of Registration with daily trend**



* + - Total users registered = 145 users
    - Highest Downfall in Registration = 10 users(30May2023)
    - Lowest Downfall in Registration = 15 user(28May2023)
    - Highest Peak in Registration = 38 users(25May2023 - 19 users) & (27May2023 - 19 users)
    - Lowest Peak in Registration = 12 users(24May2023)
    - Highest +ve trend Difference = 12 users(24May2023) to 19 users(25May2023) : 58.33% & 12 users (26May2023) to 19 users(27May2023) : 58.33%
    - Lowest +ve trend Difference = 10 users(23May2023) to 12 users(24May2023) : 20%
    - Highest -ve trend Difference = 20 users(29May2023) to 10 users(30May2023) : -50%
    - Lowest -ve trend Difference = 19 users(27May2023) to 15 users(28May2023) : -21%
  + **Conversion Rates**



* + - Total no of unique visitors visited the course = 363 users
    - Total no of visitors registered the course = 145 users

**Marketing Analysis**

* Courses : Excel and SQL
* Timeline : 01June2023 to 18June2023
* Excel(EB1) : Facebook Ads(FB1) + Organic Visitors
* SQL(SQLB1) : Instagram(IG3) and Youtube(YT2) Ads + Organic Visitors
* Datasets to be used : campaign\_metrics\_june and campaigns
* Analysis to be done
* Click Through Rate(CTR)
* Cost per Click(CPC)
* Cost per Acquisition(CPA)
* Conversions

**Data Cleaning and Preparation**

* Removing NULL and Empty Values from CourseID Column
* Removing NULL values from CampaignId

**CTR**

* Total users clicked the AD and total users watched the AD
* **TOTAL CLICKS / TOTAL IMPRESSIONS**

**CPC**

* Total cost of the AD and Total clicks done on the AD
* **TOTAL COST / TOTAL CLICKS**

**CPA**

* Ratio of Product of Total no of registrations and course price and total number of registrations
* **TOTAL COST / TOTAL REGISTRATIONS**

**CONVERSION**

* Total no of registrations and total no of clicks on AD
* **TOTAL CONVERSIONS / TOTAL CLICKS**

**Excel**

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* Among 25074 clicks only 2.14% clicks is used to register for Excel course through Facebook.
* 45.22 is the budget allocated for each click
* 71.42 is the budget allocated for each registration
* Among 25074 clicks only 63.31% clicks is used to register for the course

**SQL**

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**Youtube**

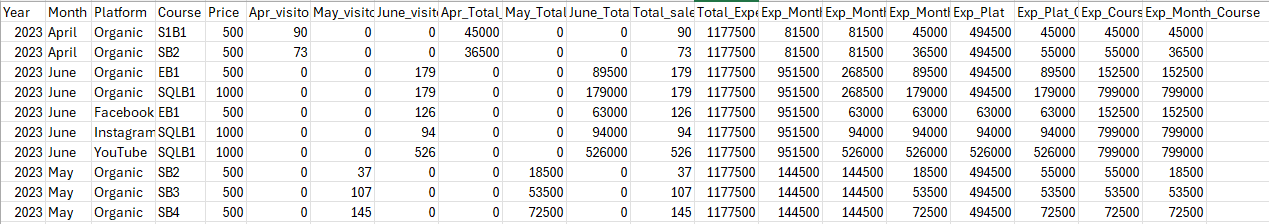
* Among 139025 clicks 2.20% is used to register for SQL course through Youtube.
* 40.96 is the budget allocated for each click
* 68.82 is the budget allocated for each registration
* Among 139025 clicks only 59.51 clicks is used to register for the course

**Instagram**

* Among 43884 clicks 0.77% is used to register for SQL course through Instagram.
* 115.94 is the budget allocated for each click
* 192.77 is the budget allocated for each registration
* Among 43884 clicks only 60.14 clicks is used to register for the course

**Finance Analysis**

* Courses : Statistics,Excel and SQL
* Timeline : 01April2023 to 18June2023
* Statistics(S1B1,SB2,SB3,SB4)
* Excel(EB1) : Facebook Ads(FB1) + Organic Visitors
* SQL(SQLB1) : Instagram(IG3) and Youtube(YT2) Ads + Organic Visitors
* Datasets to be used : april\_data,may\_data,June\_data,course\_price and marketing data

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* **Total expenditure of all courses is 1177500**

**Monthwise**

* **April**
  + **Organic**
* Course S1B1 and SB2 has 90 and 73 visitors respectively.
* Total sales of 45000 and 36500 for S1B1 and SB2 respectively
* Total expenditure of 81500 for S1B1 and SB2
* **May**
  + **Organic**
    - Course SB2,SB3 and SB4 has 37,107 and 145 visitors respectively.
    - Total sales of 18500,53500 and 72500 for SB2,SB3 and SB4 respectively
    - Total expenditure of 144500 for SB2,SB3 and SB4
* **June**
* Total Expenditure of 951500 for SQLB1 and EB1
  + **Organic**
    - Course EB1 and SQLB1 has 179 and 179 visitors respectively.
    - Total sales of 89500 and 179000 for EB1 and SQLB1 respectively
    - Total expenditure of 268500 for EB1 and SQLB1
* **Facebook**
* Course EB1 has 126 visitors
* Total sales of 63000 for EB1
* Total expenditure of 63000 for EB1
* **Instagram**
  + Course SQLB1 has 94 visitors
  + Total sales of 94000 for SQLB1
  + Total expenditure of 94000 for SQLB1
* **Youtube**
  + Course SQLB1 has 526 visitors
  + Total sales of 526000 for SQLB1
  + Total expenditure of 526000 for SQLB1

**Platformwise**

* Organic – 494500
* Facebook – 63000
* Instagram – 94000
* Youtube – 526000

**Coursewise**

* S1B1 – 45000
* SB2 – 55000
* SB3 – 53500
* SB4 – 72500
* EB1 – 152500
* SQLB1 – 799000

**Platformwise and Coursewise**

* **Organic**
* S1B1 – 45000
* SB2 – 55000
* SB3 – 53500
* SB4 – 72500
* EB1 – 63000
* SQLB1 – 179000
* **Facebook**
* EB1 – 63000
* **Instagram**
* SQLB1 – 94000
* **Youtube**
  + SQLB1 – 526000

**Product Analysis – Versions**

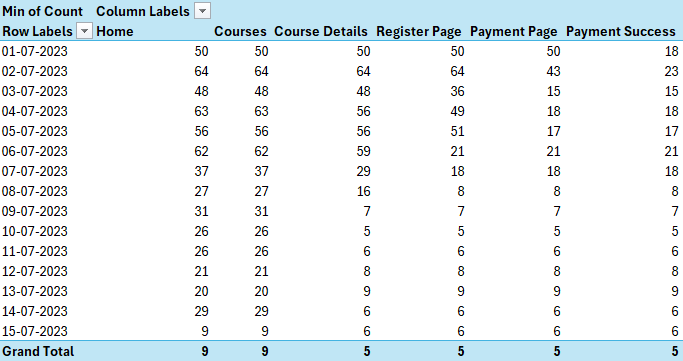
* Courses : DAIB1
* Timeline : 01July2023 to 15July2023
* Datasets to be used : campaign\_metrics\_july, july\_data\_20230715 and campaigns
* Analysis to be done
* Click Through Rate(CTR)
* Cost per Click(CPC)
* Cost per Acquisition(CPA)
  + Conversions

**Data Cleaning and Preparation**

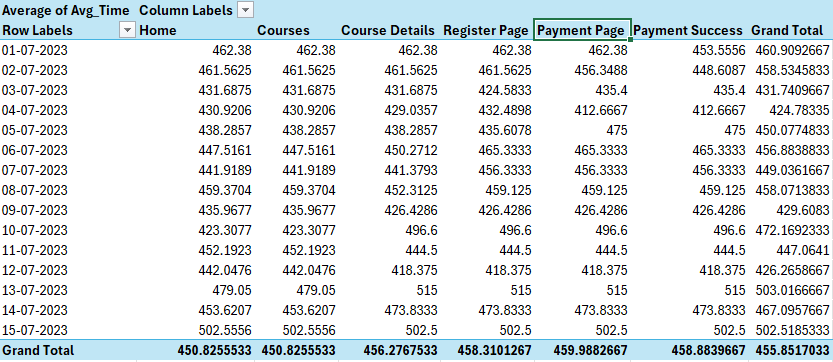
* + Removing NULL values from CourseID Column in july\_data\_20230715 table

**Visiting Traffic analysis and insights-Variant A**

* + **Visited and Registered**

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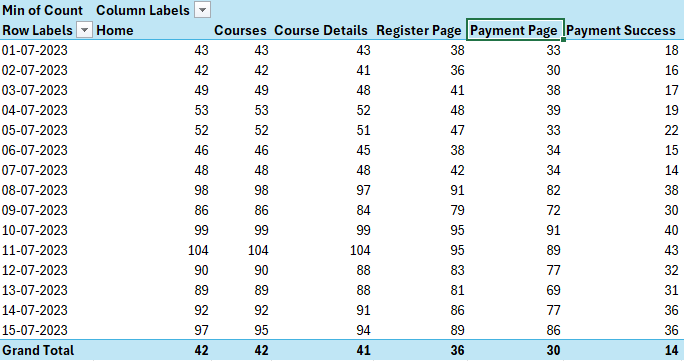
* Total users visited = 425 users
* Total uses registered = 185 users
* Maximum Registration = 23 users - 02July2023
* Minimum Registration = 05 users – 10July2023
* **Avg Time**



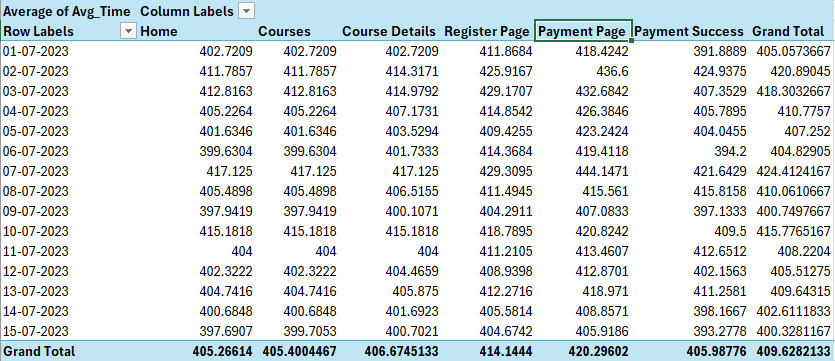
* + - Maximum Avg time spent = 503.01(13July2023) - Total Users = 09 users
    - Minimum Avg time spent = 424.78(04July2023) - Total Users = 18 users
    - Maximum time spent in website = 3015.11(15July2023) – Total Users = 09 users
    - Minimum time spent in website = 2548.70(04July2023) – Total Users = 18 users
    - Total time spent by 425 users = 41026.65
    - Avg total time spent by 425 users = 455.85

**Visiting Traffic analysis and insights-Variant B**

* **Visited and Registered**

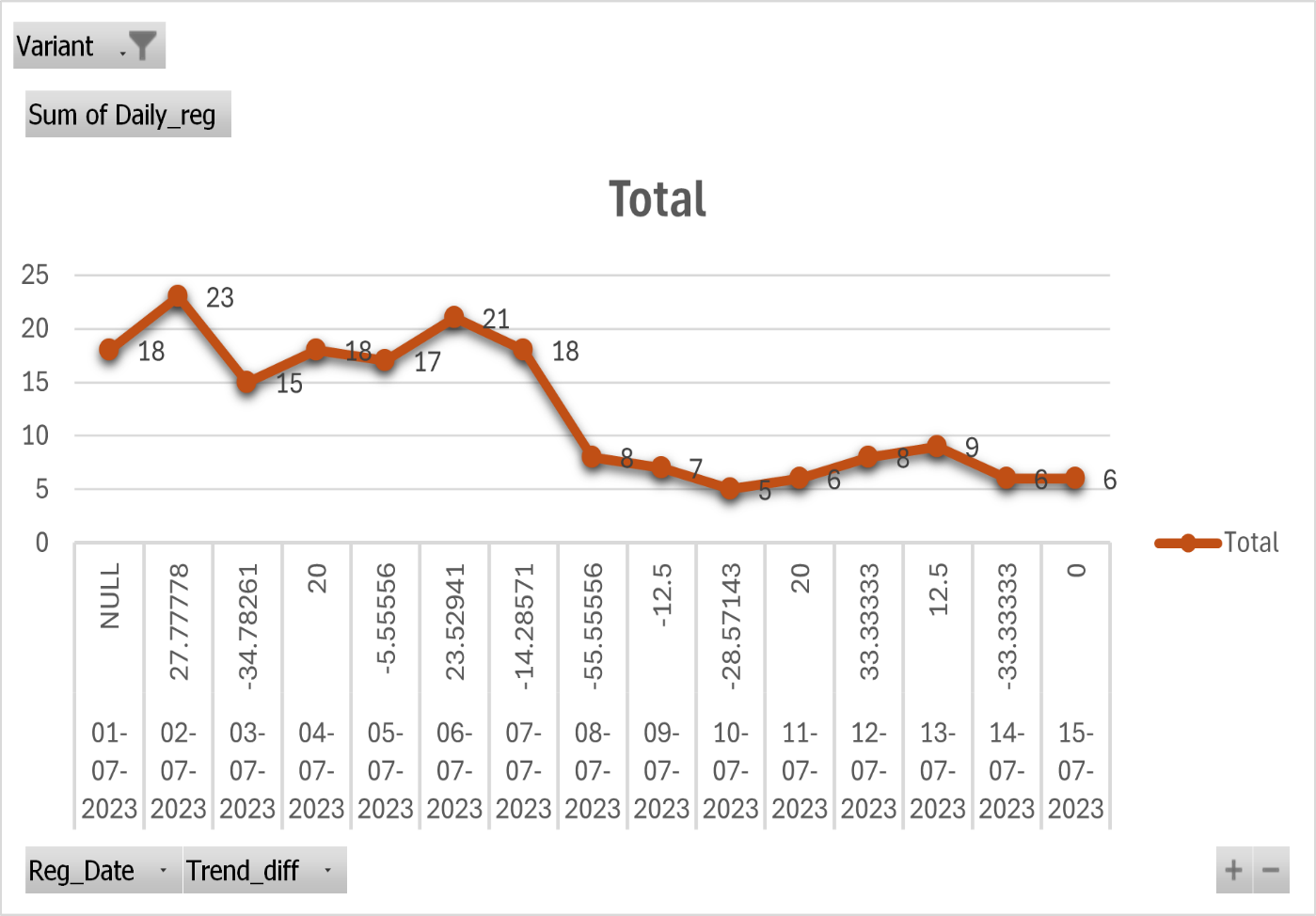
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* Total users visited = 1088 users
* Total uses registered = 407 users
* Maximum Registration = 43 users - 11July2023
* Minimum Registration = 14 users – 07July2023
* **Avg time**

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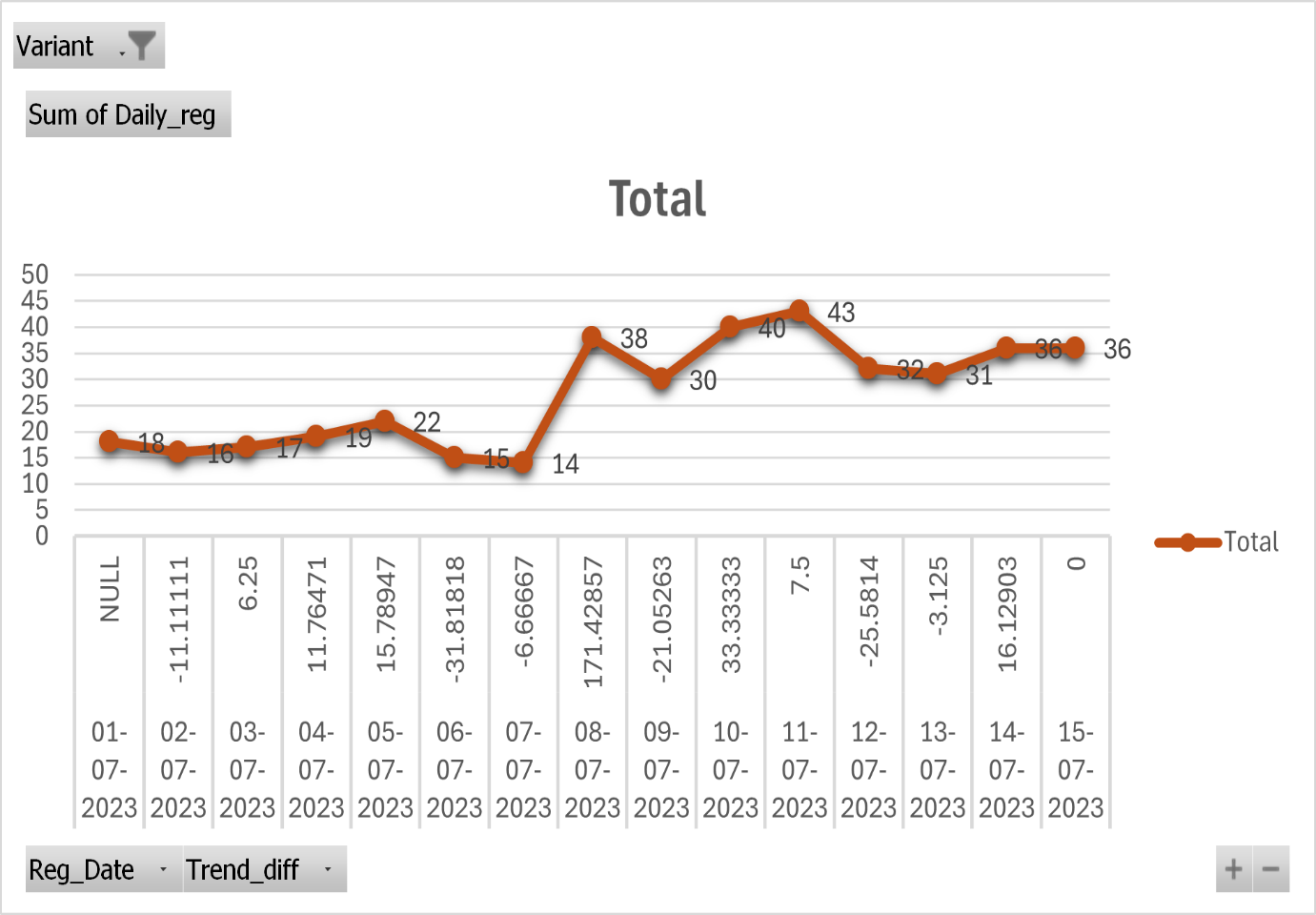
* + - Maximum Avg time spent = 424.41(07July2023) - Total Users = 14 users
    - Minimum Avg time spent = 400.32(15July2023) - Total Users = 36 users
    - Maximum time spent in website = 2546.47(07July2023) – Total Users = 48 users
    - Minimum time spent in website = 2401.96(15July2023) – Total Users = 97 users
    - Total time spent by 1088 users = 36866.53
    - Avg total time spent by 407 users = 405.98

**Registration Data with Daily Registration Trends – Variant A**

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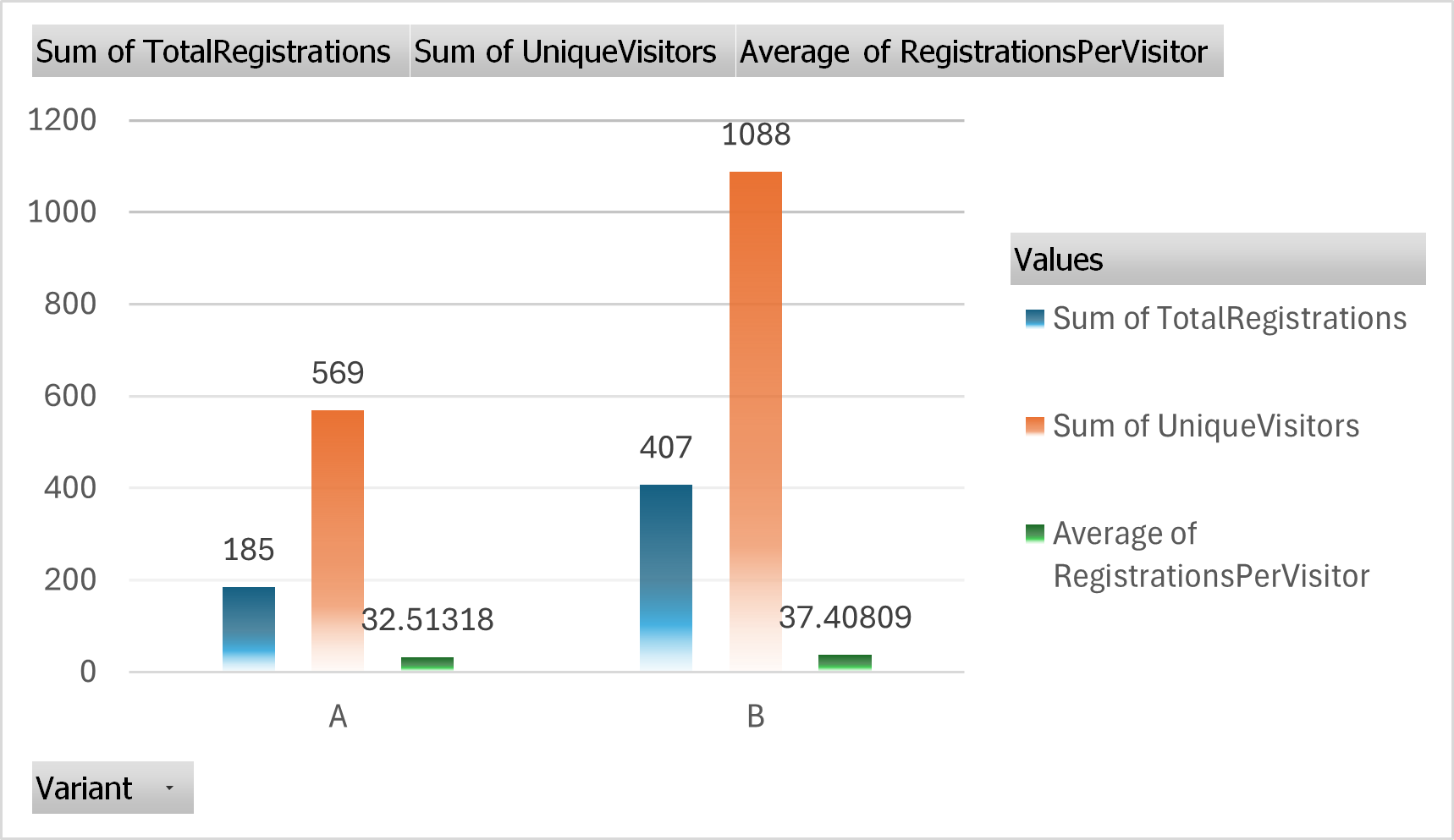
* + - Total users registered = 185 users
    - Highest Downfall in Registration = 05 users(10July2023)
    - Lowest Downfall in Registration = 21 users(06july2023)
    - Highest Peak in Registration = 23 users(01July2023)
    - Lowest Peak in Registration = 09 users(13July2023)
    - Highest +ve trend Difference = 18 users(01July2023) to 23 users(02July2023) : 27.77%
    - Lowest +ve trend Difference = 08 users(12July2023) to 09 users(13July2023) : 12.5%
    - Highest -ve trend Difference = 18 users(07July2023) to 08 users(08July2023) : -55.55%
    - Lowest -ve trend Difference = 18 users(04July2023) to 17 users(05July2023) : -5.55%

**Registration Data with Daily Registration Trends – Variant B**

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* + - Total users registered = 407 users
    - Highest Downfall in Registration = 14 users(07July2023)
    - Lowest Downfall in Registration = 31 users(13july2023)
    - Highest Peak in Registration = 43 users(11July2023)
    - Lowest Peak in Registration = 17 users(03July2023)
    - Highest +ve trend Difference = 14 users(07July2023) to 38 users(08July2023) : 171.42%
    - Lowest +ve trend Difference = 16 users(02July2023) to 17 users(03July2023) : 6.25%
    - Highest -ve trend Difference = 22 users(05July2023) to 15 users(06July2023) : -31.81%
    - Lowest -ve trend Difference = 32 users(12July2023) to 31 users(13July2023) : -3.12

**Conversion rates**



* + - Total no of unique visitors visited in Variant A = 569 users
    - Total no of visitors registered in Variant A = 185 users
    - Percentage of users registered in variant A = 32.51
    - Total no of unique visitors visited in Variant B = 1088 users
    - Total no of visitors registered in Variant A = 407 users
    - Percentage of users registered in variant b = 37.40

**CTR,CPC,CPA and Conversion**



Variant A

* Among 372 clicks only 2.21% clicks is used to register for DAIB1 course through Youtube.
* 40.32 is the budget allocated for each click
* 144.23 is the budget allocated for each registration
* Among 372 clicks only 27.95% clicks is used to register for the course

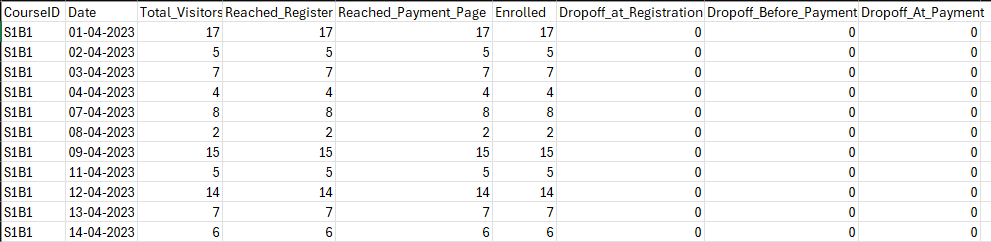
Variant B

* Among 371 clicks only 2.18% clicks is used to register for DAIB1 course through Youtube.
* 40.43 is the budget allocated for each click
* 56.81 is the budget allocated for each registration
* Among 371 clicks only 71.15% clicks is used to register for the course

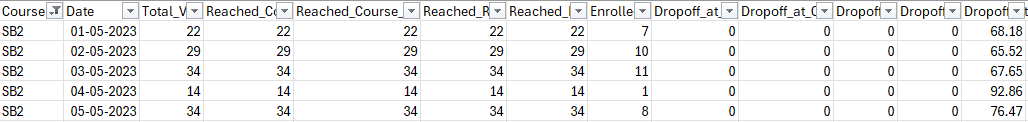
**Comprehensive Analysis**

* **Drop rates**

**S1B1**

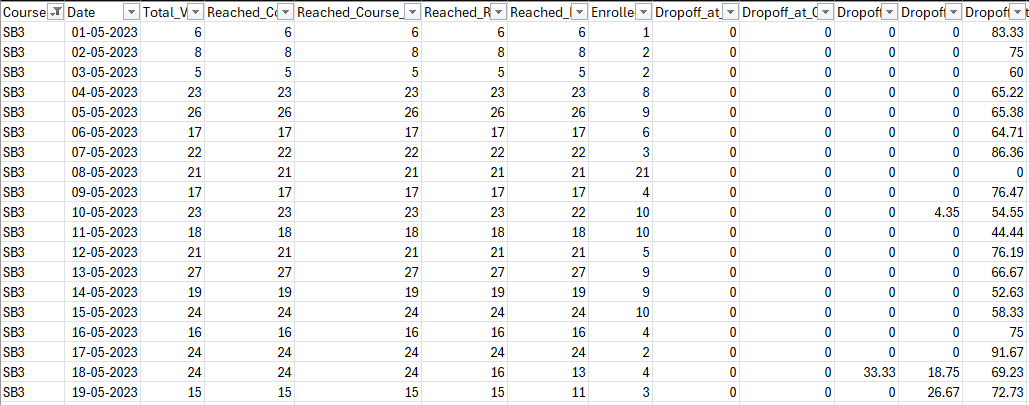
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**SB2**

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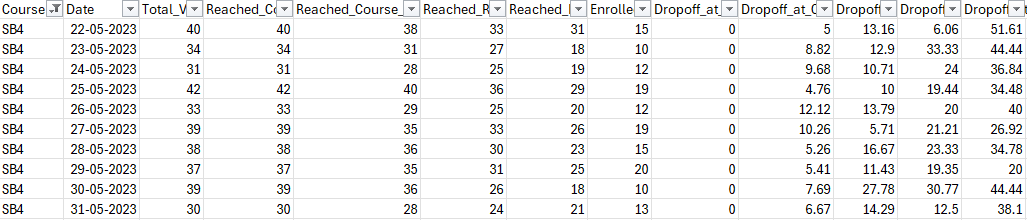
* Highest Drop-of rate after reaching payment page occurred on 04-05-2023 92.86%
* Lowest Drop-off rate after reaching payment page occurred on 02-05-2023 65.52%

**SB3**



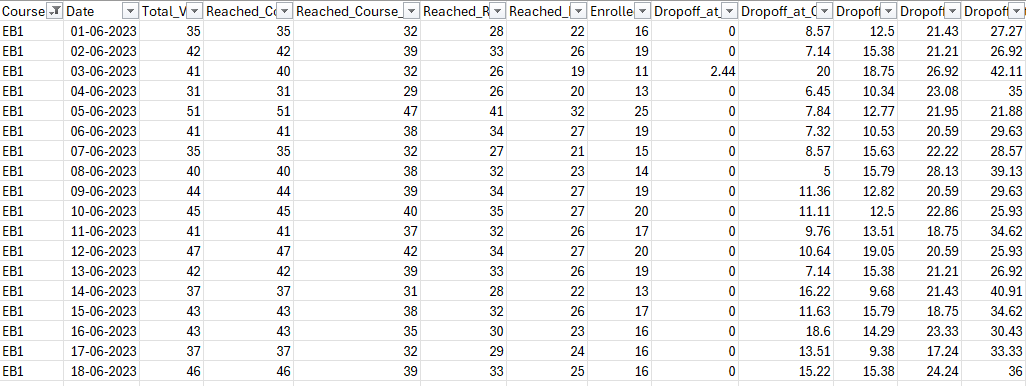
* Highest Drop-off rate after reaching registration page occurred on 18-05-2023 33.33%
* Highest Drop-off rate on reaching payment page occurred on 19-05-2023 26.67%
* Lowest Drop-off rate on reaching payment page occurred on 10-05-2023 4.35%
* Highest Drop-off rate after reaching payment page occurred on 17-05-2023 91.67%
* Lowest Drop-off rate after reaching payment page occurred on 11-05-2023 44.44%
* Nil Drop-off rate occurred on 08-05-2023

**SB4**

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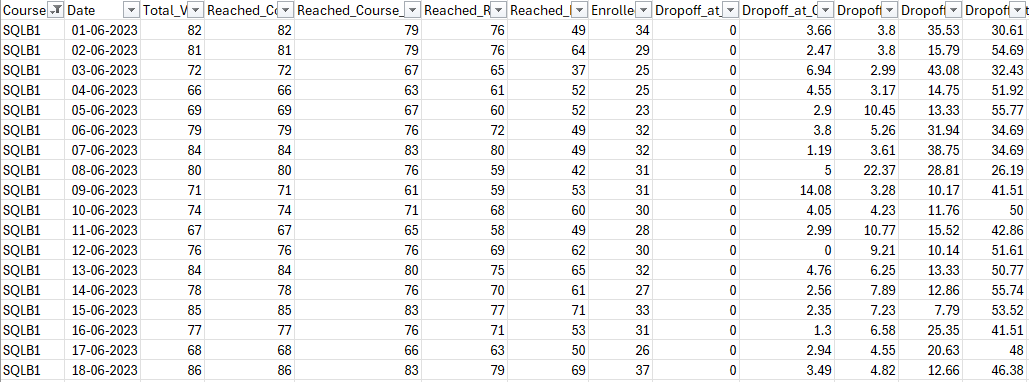
* Highest Drop-off rate on reaching course details page occurred on 26-05-2023 12.12%
* Lowest Drop-off rate on reaching course details page occurred on 25-05-2023 4.76%
* Highest Drop-off rate after reaching registration page occurred on 30-05-2023 27.78%
* Lowest Drop-off rate after reaching registration page occurred on 27-05-2023 5.71%
* Highest Drop-off rate on reaching payment page occurred on 23-05-2023 33.33%
* Lowest Drop-off rate on reaching payment page occurred on 22-05-2023 6.06%
* Highest Drop-off rate after reaching payment page occurred on 22-05-2023 51.61%
* Lowest Drop-off rate after reaching payment page occurred on 27-05-2023 26.92%

**EB1**

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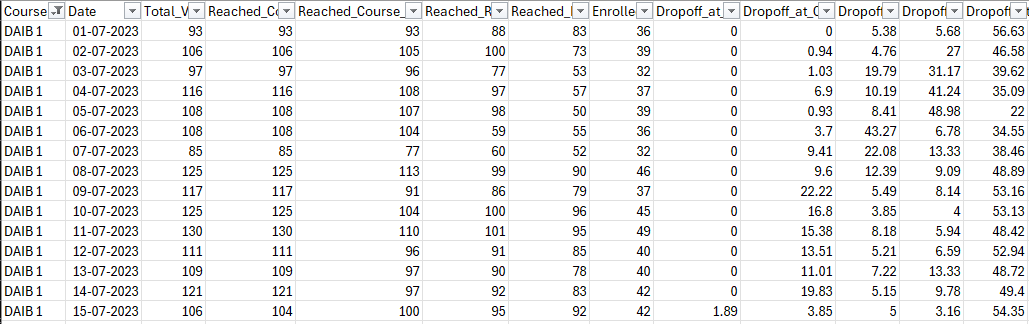
* Highest Drop-off rate on reaching course page occurred on 03-06-2023 2.44%
* Highest Drop-off rate on reaching course details page occurred on 14-06-2023 16.22%
* Lowest Drop-off rate on reaching course details page occurred on 08-06-2023 5%
* Highest Drop-off rate after reaching registration page occurred on 12-06-2023 19.05%
* Lowest Drop-off rate after reaching registration page occurred on 17-06-2023 9.38%
* Highest Drop-off rate on reaching payment page occurred on 08-06-2023 28.13%
* Lowest Drop-off rate on reaching payment page occurred on 17-06-2023 17.24%
* Highest Drop-off rate after reaching payment page occurred on 03-06-2023 42.11%
* Lowest Drop-off rate after reaching payment page occurred on 05-06-2023 21.88%

**SQLB1**

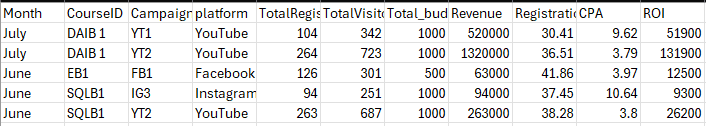
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* Highest Drop-off rate on reaching course details page occurred on 09-06-2023 14.08%
* Lowest Drop-off rate on reaching course details page occurred on 12-06-2023 0%
* Highest Drop-off rate after reaching registration page occurred on 08-06-2023 22.37%
* Lowest Drop-off rate after reaching registration page occurred on 04-06-2023 3.17%
* Highest Drop-off rate on reaching payment page occurred on 03-06-2023 43.08%
* Lowest Drop-off rate on reaching payment page occurred on 15-06-2023 7.79%
* Highest Drop-off rate after reaching payment page occurred on 05-06-2023 55.77%
* Lowest Drop-off rate after reaching payment page occurred on 08-06-2023 26.19%

**DAIB1**

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* Highest Drop-off rate on reaching course page occurred on 15-07-2023 1.89%
* Highest Drop-off rate on reaching course details page occurred on 09-07-2023 22.22%
* Lowest Drop-off rate on reaching course details page occurred on 01-07-2023 0%
* Highest Drop-off rate after reaching registration page occurred on 06-07-2023 43.27%
* Lowest Drop-off rate after reaching registration page occurred on 02-07-2023 4.76%
* Highest Drop-off rate on reaching payment page occurred on 05-07-2023 48.98%
* Lowest Drop-off rate on reaching payment page occurred on 15-07-2023 3.16%
* Highest Drop-off rate after reaching payment page occurred on 01-07-2023 56.63%
* Lowest Drop-off rate after reaching payment page occurred on 05-07-2023 22%
* **Conversion rates,ROI and Registration Percentage**

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* EB1 marks the highest Registration percentage(41.86%)
* DAIB1 marks the lowest Registration percentage(30.41%)
* DAIB1 YT2 marks the highest Revenue(13,20,000)
* EB1 marks the lowest Revenue(63,000)
* SQLB1 marks the highest CPA(10.64)
* DAIB1 YT2 marks the lowest CPA(3.79)
* DAIB1 YT2 marks the highest ROI(1,31,900)
* SQLB1 marks the lowest ROI(9,300)

**Final Insights**

* Statistics Courses S1B1,SB2,SB3,SB4 involved in offline marketing,if marketing done through campaigns such as FB1,IG1,YT1 then the revenue might rise
* Excel Course EB1 involved in FB1 marketing,the ROI records 1900%,it records the highest registration percentage and it holds 3rd position in CPA
* SQLB1 YT2 involved in Youtube marketing,the ROI records 2900%,it records the 2nd highest registration percentage and it holds 2nd position in CPA
* SQLB1 IG3 involved in Instagram marketing,the ROI records 9300%,it records the 3nd highest registration percentage and it holds last position in CPA
* DAIB1 YT1 involved in Youtube marketing,the ROI records 51900%,it records the least registration percentage and it holds 4th position in CPA
* DAIB1 YT2 involved in Youtube marketing,the ROI records 131900%,it records the 4th highest registration percentage and it holds 1st position in CPA

**Overall Insights**

* DAIB1 YT2 holds the least CPA(Rs:3.79) for the budget they allocated.
* DAIB1 YT2 holds the highest ROI(131900%) for the budget they allocated.
* DAIB1 YT2 holds the highest Revenue(Rs:13,20,000) for the registrations.