

DATA BOOTCAMP DATA ANALYSIS PRESENTATION

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Black Disruptor Data Analytics Bootcamp (WMCA -
January 2022 Cohort).





I currently am on maternity leave working for an estate agent, booking in surveyors to complete house purchases.

Prior to that I have mostly worked in events and event management jobs.

My current education level is Masters in sport management. In which I wish to continue to work within events but at more senior level.



WHAT DID I LEARN DURING THE COURSE ?



MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql*

MANAGEMENT

- Server Status
- Client Connections
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- Status and System V
- Data Export
- Data Import/Restore

INSTANCE

- Startup / Shutdown
- Server Logs
- Options File

PERFORMANCE

- Dashboard
- Performance Report:
- Performance Schema

Administration Sc

Information

No object selected

Object Info Session

Query 1

```
1 • SELECT * from sql_hr.marketing_campaign;
2 -- I have chosen the Marketing Camapaign data set as i have experince in dealing with cutomer within retail and events. I also
3
4 -- 1 the data set
5 • SELECT * from sql_hr.marketing_campaign;
6
7 -- 2 Average number Catolog Purchases
8 • SELECT AVG(NumCatalogPurchases) AS "Catolog prchases" FROM sql_hr.marketing_campaign;
9
10 -- 3 I wish to identify the the different types of education levels then in a seperate query identify one specific type.
11 • SFIJECT * FROM sql hr.marketing campaign
```

Limit to 1000 rows

Result Grid

ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	MntWines	MntFruits	MntMeatProducts	MntFishProd
5524	1957	Graduation	Single	58138	0	0	04-09-2012	58	635	88	546	172
2174	1954	Graduation	Single	46344	1	1	08-03-2014	38	11	1	6	2
4141	1965	Graduation	Together	71613	0	0	21-08-2013	26	426	49	127	111
6182	1984	Graduation	Together	26646	1	0	10-02-2014	26	11	4	20	10
5324	1981	PhD	Married	58293	1	0	19-01-2014	94	173	43	118	46
7446	1967	Master	Together	62513	0	1	09-09-2013	16	520	42	98	0
965	1971	Graduation	Divorced	55635	0	1	13-11-2012	34	235	65	164	50
6177	1985	PhD	Married	33454	1	0	08-05-2013	32	76	10	56	3
4855	1974	PhD	Together	30351	1	0	06-06-2013	19	14	0	24	3

marketing_campaign 6 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 15	22:20:33	SELECT * from sql_hr.marketing_campaign LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.015 sec

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Information

No object selected

Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql x

Limit to 1000 rows

```
1 • SELECT * from sql_hr.marketing_campaign;
2 -- I have chosen the Marketing Camapaign data set as i have experince in dealing with cutomer within retail and events. I also
3
4 -- 1 the data set
5 • SELECT * from sql_hr.marketing_campaign;
6
7 -- 2 Average number Catolog Purchases
8 • SELECT AVG(NumCatalogPurchases) AS "Catolog prchases" FROM sql_hr.marketing_campaign;
9
10 -- 3 I wish to identify the the different types of education levels then in a separte query identify one specific type.
11 • SELECT * FROM sql_hr.marketing_campaign;
```

Result Grid

	Catolog prchases
▶	2.6621

Result 7 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓	16 13:21:33	SELECT * from sql_hr.marketing_campaign LIMIT 0, 1000	1000 row(s) returned	0.422 sec / 0.015 sec

MySQL Workbench

Local instance MySQL80 x

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Administration Sc

Information

No object selected

SQL Editor

```
-- 1 the data set
SELECT * from sql_hr.marketing_campaign;

-- 2 Average number Catalog Purchases
SELECT AVG(NumCatalogPurchases) AS "Catalog prchases" FROM sql_hr.marketing_campaign;

-- 3 I wish to identify the the different types of education levels then in a separte query identify one specific type.
SELECT * FROM sql_hr.marketing_campaign
GROUP BY Education;

-- 4 I wish to identify a singular tpye of education. I chose Graduation as i am a graduate of Wolverhampton University.
```

Result Grid

ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	MntWines	MntFruits	MntMeatProducts	MntFishProducts
5524	1957	Graduation	Single	58138	0	0	04-09-2012	58	635	88	546	172
5324	1981	PhD	Married	58293	1	0	19-01-2014	94	173	43	118	46
7446	1967	Master	Together	62513	0	1	09-09-2013	16	520	42	98	0
387	1976	Basic	Married	7500	0	0	13-11-2012	59	6	16	11	11
2278	1985	2n Cycle	Single	33812	1	0	03-11-2012	86	4	17	19	30

marketing_campaign 8 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
17	13:58:05	SELECT AVG(NumCatalogPurchases) AS "Catalog prchases" FROM sql_hr.marketing_campaign ...	1 row(s) returned	0.250 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

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No object selected

Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql*

Limit to 1000 rows

```
7 -- 2 Average number Catalog Purchases
8 • SELECT AVG(NumCatalogPurchases) AS "Catalog prchases" FROM sql_hr.marketing_campaign;
9
10 -- 3 I wish to identify the the different types of education levels then in a separete query identify one specific type.
11 • SELECT * FROM sql_hr.marketing_campaign
12   GROUP BY Education;
13
14 -- 4 I wish to identify a singular type of education, I chose Graduation as i am a graduate of Wolverhampton University.
15 • SELECT * FROM sql_hr.marketing_campaign
16   WHERE Education LIKE '%Graduation%';
17
```

Result Grid

ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	MntWines	MntFruits	MntMeatProducts	MntFishProd
5524	1957	Graduation	Single	58138	0	0	04-09-2012	58	635	88	546	172
2174	1954	Graduation	Single	46344	1	1	08-03-2014	38	11	1	6	2
4141	1965	Graduation	Together	71613	0	0	21-08-2013	26	426	49	127	111
6182	1984	Graduation	Together	26646	1	0	10-02-2014	26	11	4	20	10
965	1971	Graduation	Divorced	55635	0	1	13-11-2012	34	235	65	164	50
1994	1983	Graduation	Married	0	1	0	15-11-2013	11	5	5	6	0
2125	1959	Graduation	Divorced	63033	0	0	15-11-2013	82	194	61	480	225
2569	1987	Graduation	Married	17323	0	0	10-10-2012	38	3	14	17	6
9736	1980	Graduation	Married	41850	1	1	24-12-2012	51	53	5	19	2

marketing_campaign 9 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 18	13:58:41	SELECT * FROM sql_hr.marketing_campaign GROUP BY Education LIMIT 0, 1000	5 row(s) returned	0.078 sec / 0.000 sec

Object Info Session

SQLAdditions

My Snippets

Read Only Context Help Snippets

MySQL Workbench

Local instance MySQL80

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Status and System V

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Options File

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Dashboard

Performance Report

Performance Schema

Administration

Information

No object selected

Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql

Limit to 1000 rows

SQL Editor

```
15 • SELECT * FROM sql_hr.marketing_campaign
16 WHERE Education LIKE '%Graduation%';
17
18 -- 5 I wish to find the total amount of fruits brought and compare it to the amount of meat products brought
19 • SELECT SUM(MntFruits)
20 FROM sql_hr.marketing_campaign;
21
22 -- 6 I wish to find the total amount of meat products brought and compared it to the amount offruits brought.
23 • SELECT SUM(MntMeatProducts)
24 FROM sql_hr.marketing_campaign;
25
```

SQLAdditions

My Snippets

Result Grid

Form Editor

Field Types

Result 10

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
19	13:59:31	SELECT * FROM sql_hr.marketing_campaign WHERE Education LIKE '%Graduation%' LIMIT 0, 1...	1000 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql x SQLAdditions

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Administration Sc

Information

No object selected

Query 1

```
15 • SELECT * FROM sql_hr.marketing_campaign
16 WHERE Education LIKE '%Graduation%';
17
18 -- 5 I wish to find the total amount of fruits brought and compare it to the amount of meat products brought
19 • SELECT SUM(MntFruits)
20 FROM sql_hr.marketing_campaign;
21
22 -- 6 I wish to find the total amount of meat products brought and compared it to the amount offruits brought.
23 • SELECT SUM(MntMeatProducts)
24 FROM sql_hr.marketing_campaign;
25
```

Result Grid

SUM(MntFruits)
58917

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 19	13:59:31	SELECT * FROM sql_hr.marketing_campaign WHERE Education LIKE '%Graduation%' LIMIT 0, 1...	1000 row(s) returned	0.000 sec / 0.000 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

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Information

No object selected

Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql*

Limit to 1000 rows

```
19 • SELECT SUM(MntFruits)
20 FROM sql_hr.marketing_campaign;
21
22 -- 6 I wish to find the total amount of meat products brought and compared it to the amount offruits brought.
23 • SELECT SUM(MntMeatProducts)
24 FROM sql_hr.marketing_campaign;
25
26 -- 7 i wish to finf out if the customer has kids at home,to see if most of their customers are parents of small children.
27 • SELECT SUM(Kidhome)
28 FROM sql_hr.marketing_campaign;
29
```

Result Grid

Filter Rows: | Export: | Wrap Cell Content: |

SUM(Kidhome)

995

Result 13 x

Read Only Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 24	14:47:39	SELECT * from sql_hr.marketing_campaign LIMIT 0, 1000	1000 row(s) returned	0.000 sec / 0.016 sec

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: Query 1 create-databases SQL File 4 SQL File 5 maketing sql SQL File 11 maketing sql SQL File 9 maketing sql* x SQLAdditions

MANAGEMENT

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INSTANCE

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- Server Logs
- Options File

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- Performance Report
- Performance Scheme

Administration Sc

Information

No object selected

```
23 • SELECT SUM(MntMeatProducts)
24 FROM sql_hr.marketing_campaign;
25
26 -- 7 i wish to finf out if the customer has kids at home,to see if most of their customers are parents of small children.
27 • SELECT SUM(Kidhome)
28 FROM sql_hr.marketing_campaign;
29
30
31 -- 8 I wish to highlight the difference in the data between the higher and the lower incomes to later show the buying trends.
32 • SELECT Income, ID,
33 CASE
```

Result Grid

Income	ID	CASE WHEN Income <= 40000 THEN 'POOR' ELSE 'RICH' END
58138	5524	RICH
46344	2174	RICH
71613	4141	RICH
26646	6182	POOR
58293	5324	RICH
62513	7446	RICH
55635	965	RICH

Result 15 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
26	14:49:56	SELECT Income, ID, CASE WHEN Income <= 40000 THEN 'POOR' ELSE 'RICH' END FROM sq...	1000 row(s) returned	0.016 sec / 0.000 sec

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format. Don't show again Save As...

O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ
MntGoldP	NumDeals	NumWebP	NumCatal	NumStore	NumWebV	AcceptedC	AcceptedC	AcceptedC	AcceptedC	AcceptedC	Complain	Z_CostCon	Z_Revenue	Response							
£96.00	1	3	4	10	1	0	0	1	0	0	0	3	11	0		Average wages					
£96.00	1	3	4	10	1	0	0	1	0	0	0	3	11	1		£52,247.25					
£33.00	1	7	11	10	4	1	0	1	1	0	0	3	11	1							
£182.00	1	9	7	9	5	1	0	1	1	0	0	3	11	1		Maximum Wine products sales					
£178.00	1	7	8	9	5	0	0	0	0	0	0	3	11	0		£1,493.00					
£108.00	1	4	7	12	2	0	0	0	1	0	0	3	11	0							
£45.00	0	6	7	12	2	0	1	1	1	0	0	3	11	1		Minimum Wine products Sales					
£210.00	1	5	7	10	2	1	0	1	1	0	0	3	11	1		£0.00					
£172.00	0																				
£172.00	0																				
£126.00	1																				
£126.00	1																				
£183.00	1																				

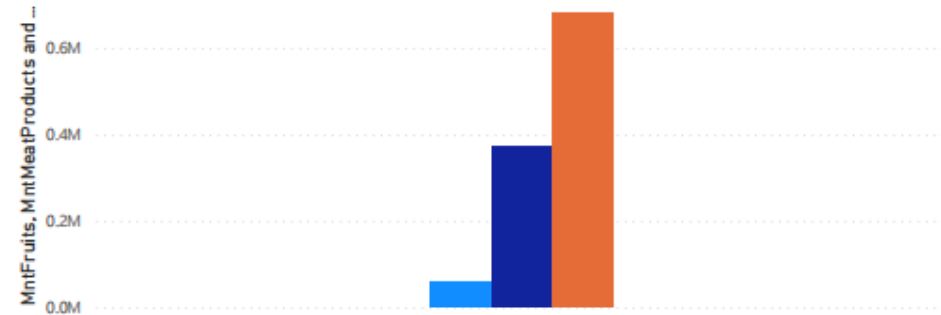
=MAX(J2:J2241)

=MIN(J2:J2241)

=AVERAGE(E2:E2241)

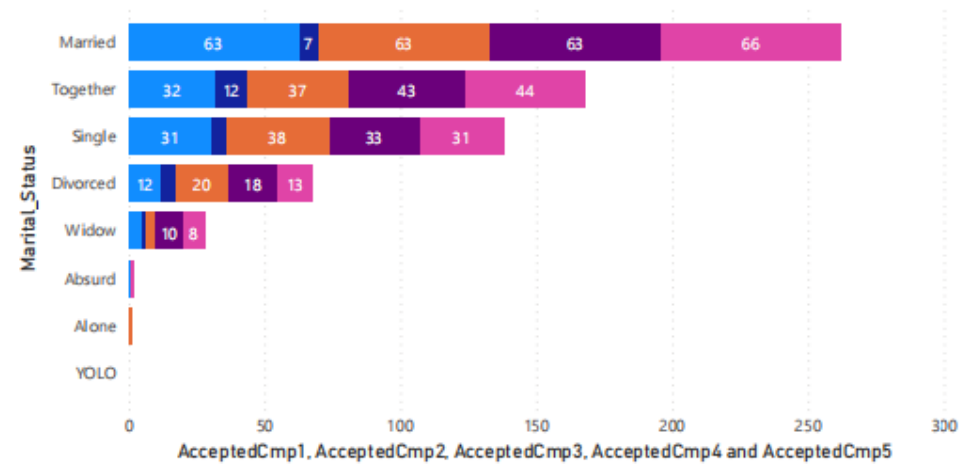
MntFruits, MntMeatProducts and MntWines

● MntFruits ● MntMeatProducts ● MntWines



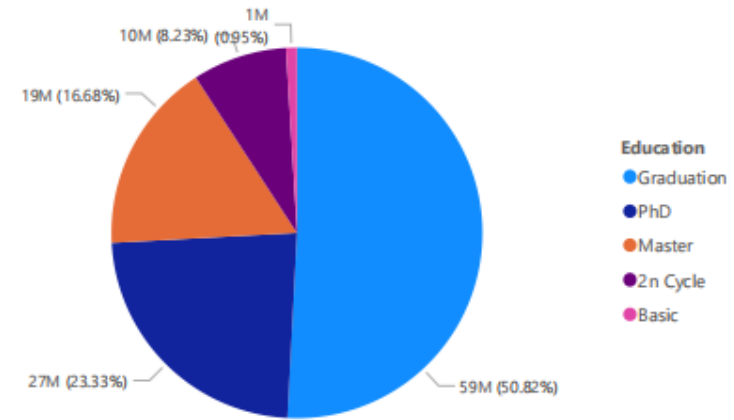
AcceptedCmp1, AcceptedCmp2, AcceptedCmp3, AcceptedCmp4 and AcceptedCmp5 by Marital_Status

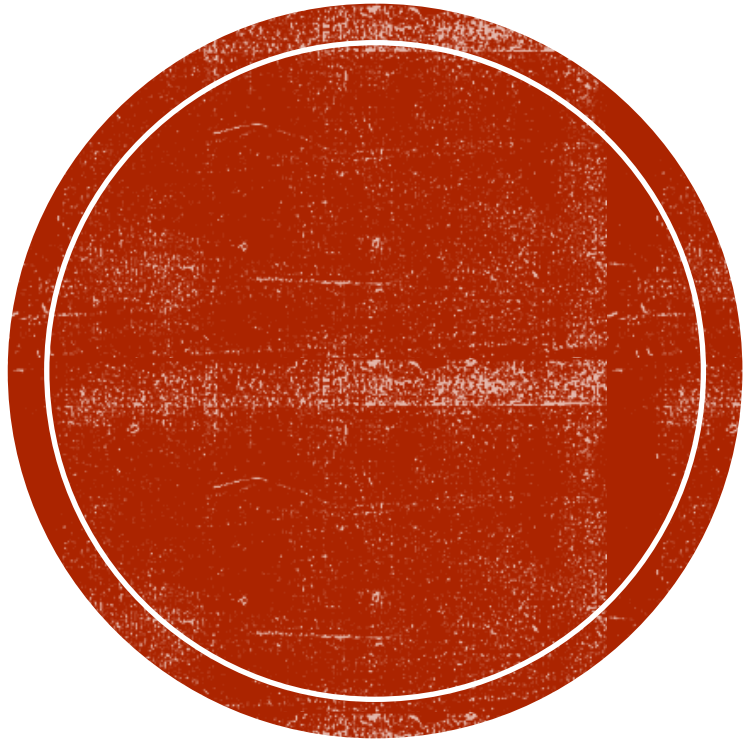
● AcceptedCmp1 ● AcceptedCmp2 ● AcceptedCmp3 ● AcceptedCmp4 ● AcceptedCmp5



Comparison of Marketing Figures

Income by Education





■ Any Questions ?