Introduction to Business Problem

Example of VLOOKUP in Marketing Dataset

1. Use the VLOOKUP function and select the search_key which will be the **ID** column in the first sheet. As you are going to map this id with the id column of the second workbook.
   search_key: **B2**

	B	C	D	E	F	G	H	I	J	K
	ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	Dt_Customer	Recency	
0	5524	1957	Graduation	Single	58138	0	0	04-09-2012	58	=VLOOKUP(B2
1	2174	1954	Graduation	Single	46344	1	1	08-03-2014	38	
2	4141	1965	Graduation	Together	71613	0	0	21-08-2013	26	
3	6182	1984	Graduation	Together	26646	1	0	10-02-2014	26	

2. The second parameter is range and as the dataset is in a different workbook you will use the IMPORTRANGE function and will pass the spreadsheet URL along with the range of columns that we want to import from the sheet2.

	A	B	C	D	E
1	ID	MntFruits	MntSweetProduc	NumWebPurcha:	NumStorePurchases
2	5524	88	88	8	4
3	2174	1	1	1	2
4	4141	49	21	8	10
5	6182	4	3	2	4

- URL of the second sheet is provided inside the IMPORTRANGE function as the first parameter.

```
=VLOOKUP(A2,IMPORTRANGE("https://docs.google.com/spreadsheets/d/1W09O5VHEk9vAC2DzKPkIeaOUsUHRhijrljv8WeTOdzo/edit#gid=2013721095"
,"marketing_campaign_df2!$A$2:$E$2241")
```

- You have to provide the range of columns that we want to import from sheet 2 to sheet 1 as the second parameter which is done by adding the

sheet name followed by '!' and adding the cell values of starting cell to the end cell.

3. Add the index of column you want to import using VLOOKUP as the third parameter.

```
=VLOOKUP(A2,IMPORTRANGE("https://docs.google.com/spreadsheets/d/1W09O5VHEk9vAC2DzKPkIeaOUsUHRhijrljv8WeTOdzo/edit#gid=2013721095"
,"marketing_campaign_df2!$A$2:$E$2241"),{2,3,4,5},
```

4. The last step is to specify is_sorted value as 0 (False) or 1 (True). Here, you will use 0. Type it as '0'.

```
=VLOOKUP(A2,IMPORTRANGE("https://docs.google.com/spreadsheets/d/1W09O5VHEk9vAC2DzKPkIeaOUsUHRhijrljv8WeTOdzo/edit#gid=2013721095"
,"marketing_campaign_df2!$A$2:$E$2241"),{2,3,4,5},0)
```

5. If you want all the respective column values from sheet 2, use the ARRAYFORMULA function.

```
=ARRAYFORMULA(VLOOKUP($A$2,IMPORTRANGE("https://docs.google.com/spreadsheets/d/1W09O5VHEk9vAC2DzKPkIeaOUsUHRhijrljv8WeTOdzo/edit#
gid=2013721095","marketing_campaign_df2!$A$2:$E$2241"),{2,3,4,5},0)
```

6. After applying the function, this will be the result.

A	B	C	D	E	F	G	H	I	J	K
ID	Year_Birth	Education	Marital_Status	Income	Kidhome	Teenhome	MntFruits	MntSweetProduc	NumWebPurcha	NumStorePurcha
5524	1957	Graduation	Single	58138	0	0	88	88	8	4
2174	1954	Graduation	Single	46344	1	1	1	1	1	2
4141	1965	Graduation	Together	71613	0	0	49	21	8	10
6182	1984	Graduation	Together	26646	1	0	4	3	2	4
5324	1981	PhD	Married	58293	1	0	43	27	5	6
7446	1967	Master	Together	62513	0	1	42	42	6	10
965	1971	Graduation	Divorced	55635	0	1	65	49	7	7
6177	1985	PhD	Married	33454	1	0	10	1	4	4
4855	1974	PhD	Together	30351	1	0	0	3	3	2
5899	1950	PhD	Together	5648	1	1	0	1	1	0
1994	1983	Graduation	Married		1	0	5	2	1	2
387	1976	Basic	Married	7500	0	0	16	1	2	3
2125	1959	Graduation	Divorced	63033	0	0	61	112	3	8
8180	1952	Master	Divorced	59354	1	1	2	5	6	5
2569	1987	Graduation	Married	17323	0	0	14	1	1	3
2114	1946	PhD	Single	82800	0	0	22	68	7	12
9736	1980	Graduation	Married	41850	1	1	5	13	3	3
4939	1946	Graduation	Together	37760	0	0	5	12	4	6
6565	1949	Master	Married	76995	0	1	80	16	11	9
2278	1985	2n Cycle	Single	33812	1	0	17	24	2	3
9360	1982	Graduation	Married	37040	0	0	2	38	4	5
5376	1979	Graduation	Married	2447	1	0	1	1	0	0
1993	1949	PhD	Married	58607	0	1	0	0	2	9
4047	1954	PhD	Married	65324	0	1	0	32	6	9
1409	1951	Graduation	Together	40689	0	1	3	6	7	5
7892	1969	Graduation	Single	18589	0	0	4	12	2	3

marketing_campaign_df1

Finally, data from two Google spreadsheets are merged into one.