Overview

Dataset statistics

Number of variables	21
Number of observations	40841
Missing cells	81682
Missing cells (%)	9.52%
Duplicate rows	0
Duplicate rows (%)	0%
Total size in memory	5.73 MB
Average record size in memory	147 Bytes

Variable types

Numeric	10
Categorical	6
Unsupported	2
Boolean	3

Variables

id

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	40841	Minimum	1	
Distinct (%)	100%	Maximum	40841	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	20421	Memory size	319.2 KB	
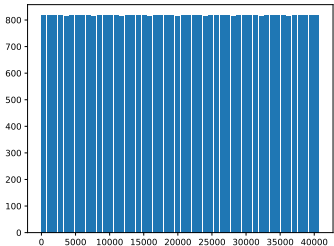
Quantile statistics

Minimum	1
5-th percentile	2043
Q1	10211

Descriptive statistics

Standard deviation	11789.925508670527
Coefficient of variation (CV)	0.5773432010513945
Kurtosis	-1.199999999999995

Q1	10211	Kurtosis	1.17777777777773
median	20421	Mean	20421
Q3	30631	Median Absolute Deviation (MAD)	10210
95-th percentile	38799	Skewness	0
Maximum	40841	Sum	834014061
Range	40840	Variance	139002343.5
Interquartile range (IQR)	20420	Monotonicity	2

age

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	75	Minimum	18	
Distinct (%)	0.18%	Maximum	95	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	40.79	Memory size	319.2 KB	
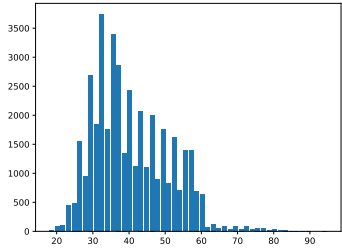
Quantile statistics

Minimum	18
5-th percentile	27
Q1	33
median	39
Q3	48
95-th percentile	59
Maximum	95
Range	77
Interquartile range (IQR)	15

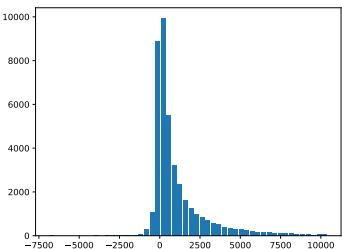### Descriptive statistics

Standard deviation	10.475473300879521
Coefficient of variation (CV)	0.25681048511056903
Kurtosis	0.2680218097648752
Mean	40.79067603633604
Median Absolute Deviation (MAD)	7
Skewness	0.6805353094703153
Sum	1665932
Variance	109.73554087743969
Monotonicity	0

balance

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	6350	Minimum	-6847	
Distinct (%)	15.55%	Maximum	10443	
Missing	0	Zeros	3272	
Missing (%)	0%	Zeros (%)	8.01%	
Infinite	0	Negative	3504	

Infinite (%)	0%	Negative (%)	8.58%
Mean	1073.98	Memory size	319.2 KB

Quantile statistics

Minimum	-6847
5-th percentile	-184
Q1	64
median	421
Q3	1333
95-th percentile	4859
Maximum	10443
Range	17290
Interquartile range (IQR)	1269

Descriptive statistics

Standard deviation	1712.55618611034
Coefficient of variation (CV)	1.5945858432192646
Kurtosis	6.723075989489469
Mean	1073.9818074973678
Median Absolute Deviation (MAD)	421
Skewness	2.43486145840302
Sum	43862491
Variance	2932848.690584793
Monotonicity	0

day

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	31	Minimum	1	
Distinct (%)	0.08%	Maximum	31	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	15.86	Memory size	319.2 KB	
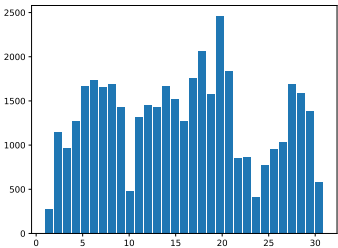
Quantile statistics

Minimum	1
5-th percentile	3
Q1	8
median	16
Q3	21
95-th percentile	29
Maximum	31
Range	30
Interquartile range (IQR)	13

Descriptive statistics

Standard deviation	8.31360839758667
Coefficient of variation (CV)	0.5240660122827359
Kurtosis	-1.065290335236577
Mean	15.863666413652947
Median Absolute Deviation (MAD)	7
Skewness	0.0862537220844971
Sum	647888
Variance	69.1160845884236
Monotonicity	0

duration

Real number (ℝ≥0)

Distinct	1539	Minimum	0.1	
Distinct (%)	3.77%	Maximum	81.97	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	4.31	Memory size	319.2 KB	
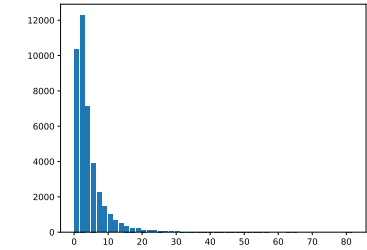
Quantile statistics

Minimum	0.1
5-th percentile	0.62
Q1	1.73
median	3
Q3	5.3
95-th percentile	12.55
Maximum	81.97
Range	81.87
Interquartile range (IQR)	3.57

Descriptive statistics

Standard deviation	4.305823262976869
Coefficient of variation (CV)	0.9992745152239512
Kurtosis	18.985625675953578
Mean	4.3089493401238945
Median Absolute Deviation (MAD)	1.5300000000000002
Skewness	3.2077479933115587
Sum	175981.8
Variance	18.540113971992767
Monotonicity	0

campaign

Real number (ℝ≥0)

Distinct	47	Minimum	1	
Distinct (%)	0.12%	Maximum	58	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	2.77	Memory size	319.2 KB	
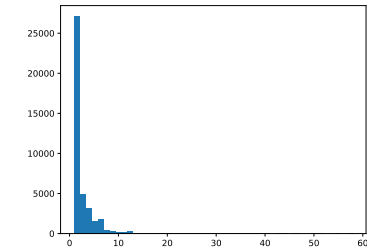
Quantile statistics

Minimum	1
5-th percentile	1
Q1	1
median	2
Q3	3

Descriptive statistics

Standard deviation	3.104176935515931
Coefficient of variation (CV)	1.1189656592150516
Kurtosis	36.516398246626345
Mean	2.7741485272152984
Median Absolute Deviation (MAD)	1

95-th percentile	8	Skewness	4.780104146339046
Maximum	58	Sum	113299
Range	57	Variance	9.635914446989077
Interquartile range (IQR)	2	Monotonicity	0

pdays

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	510	Minimum	-1	
Distinct (%)	1.25%	Maximum	871	
Missing	0	Zeros	0	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	34797	
Infinite (%)	0%	Negative (%)	85.2%	
Mean	32.25	Memory size	319.2 KB	
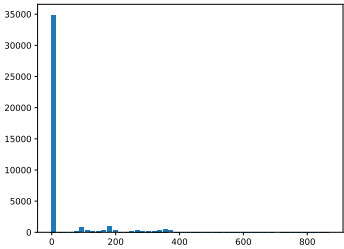
Quantile statistics

Minimum	-1
5-th percentile	-1
Q1	-1
median	-1
Q3	-1
95-th percentile	274
Maximum	871
Range	872
Interquartile range (IQR)	0

Descriptive statistics

Standard deviation	90.73840181955426
Coefficient of variation (CV)	2.813741792253171
Kurtosis	9.200094213035051
Mean	32.248304399990204
Median Absolute Deviation (MAD)	0
Skewness	2.983789619091763
Sum	1317053
Variance	8233.457564766888
Monotonicity	0

previous

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	36	Minimum	0	
Distinct (%)	0.09%	Maximum	55	
Missing	0	Zeros	34797	
Missing (%)	0%	Zeros (%)	85.2%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	0.44	Memory size	319.2 KB	
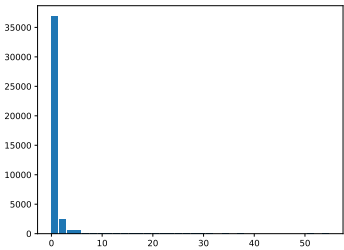
Quantile statistics

Descriptive statistics

Quantile statistics

Minimum	0
5-th percentile	0
Q1	0
median	0
Q3	0
95-th percentile	3
Maximum	55
Range	55
Interquartile range (IQR)	0

Descriptive statistics

Standard deviation	1.5723420365005967
Coefficient of variation (CV)	3.5997545329178133
Kurtosis	143.36043702381528
Mean	0.43679145956269433
Median Absolute Deviation (MAD)	0
Skewness	8.604262360694513
Sum	17839
Variance	2.472259479746844
Monotonicity	0

Column1

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	40841	Minimum	0	
Distinct (%)	100%	Maximum	45209	
Missing	0	Zeros	1	
Missing (%)	0%	Zeros (%)	0%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	22006.48	Memory size	319.2 KB	
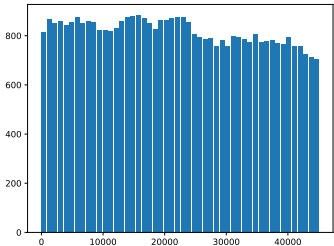
Quantile statistics

Minimum	0
5-th percentile	2187
Q1	10888
median	21652
Q3	33102
95-th percentile	42623
Maximum	45209
Range	45209
Interquartile range (IQR)	22214

Descriptive statistics

Standard deviation	12919.797650721895
Coefficient of variation (CV)	0.5870906672091548
Kurtosis	-1.17637689781315
Mean	22006.47765725619
Median Absolute Deviation (MAD)	11099
Skewness	0.05778465038732051
Sum	898766554
Variance	166921171.335599
Monotonicity	2

response_binary

Real number ($\mathbb{R}_{\geq 0}$)

Distinct	2	Minimum	0

Distinct (%)	0%	Maximum	1	
Missing	0	Zeros	36202	
Missing (%)	0%	Zeros (%)	88.64%	
Infinite	0	Negative	0	
Infinite (%)	0%	Negative (%)	0%	
Mean	0.11	Memory size	319.2 KB	
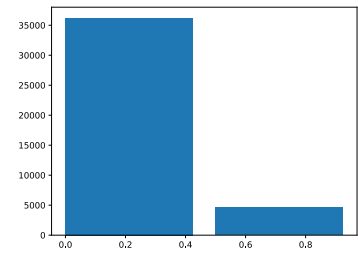
Quantile statistics

Minimum	0
5-th percentile	0
Q1	0
median	0
Q3	0
95-th percentile	1
Maximum	1
Range	1
Interquartile range (IQR)	0

Descriptive statistics

Standard deviation	0.31731267327672796
Coefficient of variation (CV)	2.7935690643015407
Kurtosis	3.9326074699086853
Mean	0.11358683675718029
Median Absolute Deviation (MAD)	0
Skewness	2.4356549203358044
Sum	4639
Variance	0.1006873326220235
Monotonicity	0

job

Categorical

Distinct	12
Distinct (%)	0.03%
Missing	0
Missing (%)	0%
Memory size	319.2 KB
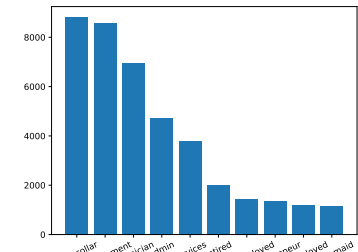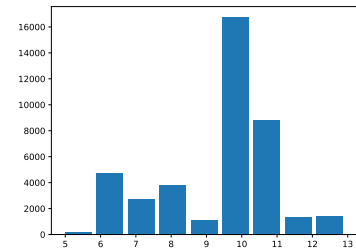
Length

Max length	13
Median length	10
Mean length	9.49
Min length	5

Unicode

Total characters	0
Distinct characters	0
Distinct categories	0
Distinct scripts	0
Distinct blocks	0

Unique

Unique	0
Unique (%)	0%

Sample

1st Row	management
2nd Row	technician
3rd Row	entrepreneur
4th Row	management
5th Row	management

marital

Distinct	3

Categorical

Distinct (%)	0.01%	
Missing	0	
Missing (%)	0%	
Memory size	319.2 KB	
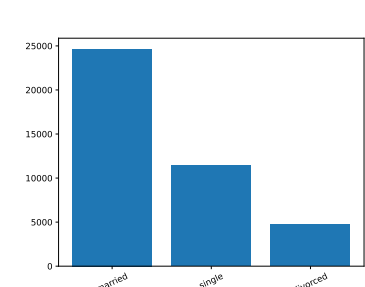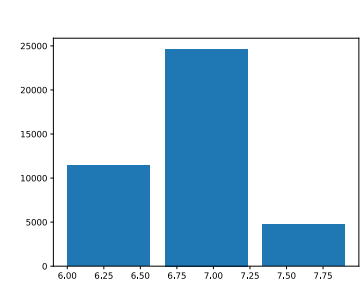
Length

Max length	8
Median length	7
Mean length	6.84
Min length	6

Unicode

Total characters	0
Distinct characters	0
Distinct categories	0
Distinct scripts	0
Distinct blocks	0

Unique

Unique	0
Unique (%)	0%

Sample

1st Row	married
2nd Row	single
3rd Row	married
4th Row	married
5th Row	single

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education

Categorical

Distinct	3
Distinct (%)	0.01%
Missing	0
Missing (%)	0%
Memory size	319.2 KB
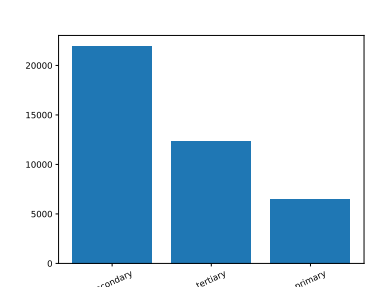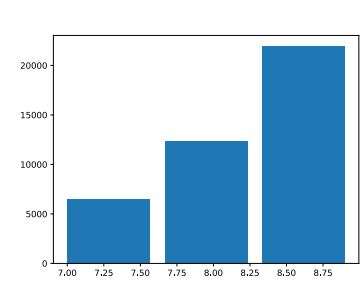
Length

Max length	9
Median length	9
Mean length	8.38
Min length	7

Unicode

Total characters	0
Distinct characters	0
Distinct categories	0
Distinct scripts	0
Distinct blocks	0

Unique

Unique	0
Unique (%)	0%

Sample

1st Row	tertiary
2nd Row	secondary
3rd Row	secondary
4th Row	tertiary
5th Row	tertiary

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month

Categorical

Distinct	12
Distinct (%)	0.03%
Missing	0
Missing (%)	0%
Memory size	319.2 KB
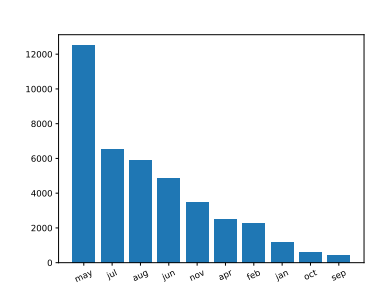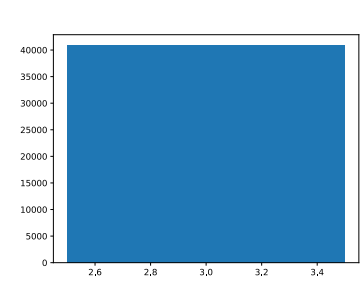
Length

Max length	3

Unicode

Total characters	0

Unique

Unique	0

Sample

1st Row	may

Median length	3	Distinct characters	0	Unique (%)	0%	2nd Row	may
Mean length	3	Distinct categories	0			3rd Row	may
Min length	3	Distinct scripts	0			4th Row	may
		Distinct blocks	0			5th Row	may

poutcome

Categorical

Distinct	3
Distinct (%)	0.01%
Missing	0
Missing (%)	0%
Memory size	319.2 KB
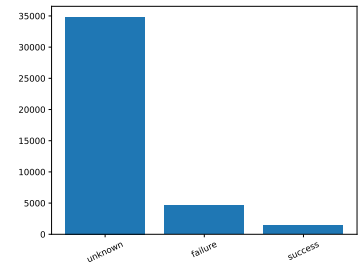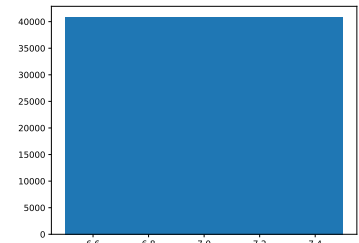
Length

Max length	7
Median length	7
Mean length	7
Min length	7

Unicode

Total characters	0
Distinct characters	0
Distinct categories	0
Distinct scripts	0
Distinct blocks	0

Unique

Unique	0
Unique (%)	0%

Sample

1st Row	unknown
2nd Row	unknown
3rd Row	unknown
4th Row	unknown
5th Row	unknown

default

Categorical

Distinct	2
Distinct (%)	0%
Missing	0
Missing (%)	0%
Memory size	319.2 KB
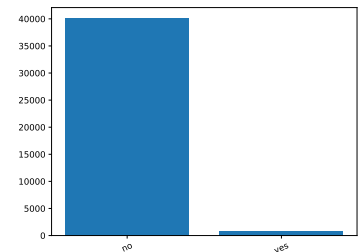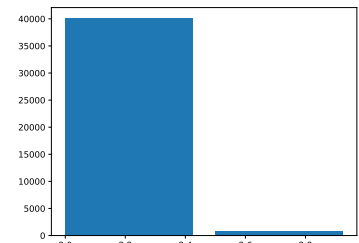
Length

Max length	3
Median length	2
Mean length	2.02
Min length	2

Unicode

Total characters	0
Distinct characters	0
Distinct categories	0
Distinct scripts	0
Distinct blocks	0

Unique

Unique	0
Unique (%)	0%

Sample

1st Row	no
2nd Row	no
3rd Row	no
4th Row	no
5th Row	no

housing

Boolean

Distinct	1	
Distinct (%)	0%	
Missing	0	
Missing (%)	0%	
Memory size	40.01 KB	

Common Values

False	40841

loan

Boolean

Distinct	1	
Distinct (%)	0%	
Missing	0	
Missing (%)	0%	
Memory size	40.01 KB	

Common Values

False	40841

response

Boolean

Distinct	1	
Distinct (%)	0%	
Missing	0	
Missing (%)	0%	
Memory size	40.01 KB	

Common Values

False	40841

default_payment

Unsupported

Distinct	0	
Distinct (%)	0%	
Missing	40841	
Missing (%)	100%	
Memory size	319.2 KB	

Common Values

predicted_response

Unsupported

Distinct	0
Distinct (%)	0%
Missing	40841
Missing (%)	100%
Memory size	319.2 KB

Common Values

Interactions
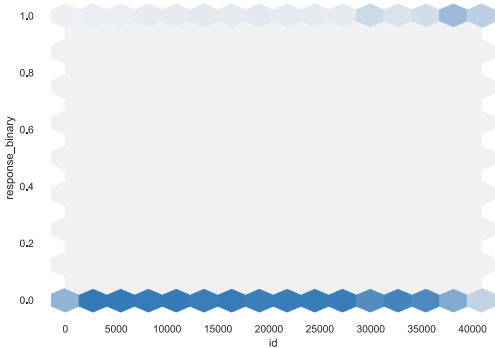
Interaction between column: id and column: response_binary
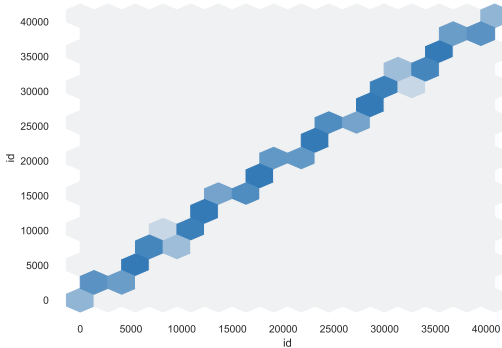
Interaction between column: id and column: id
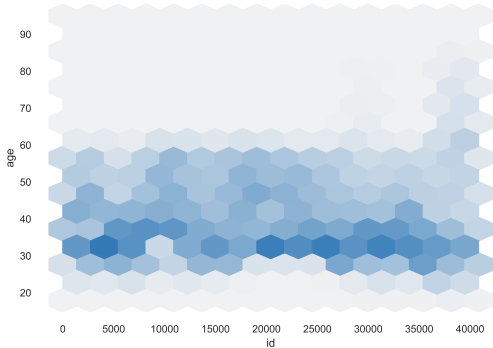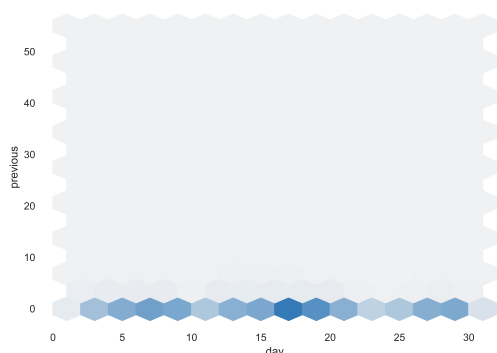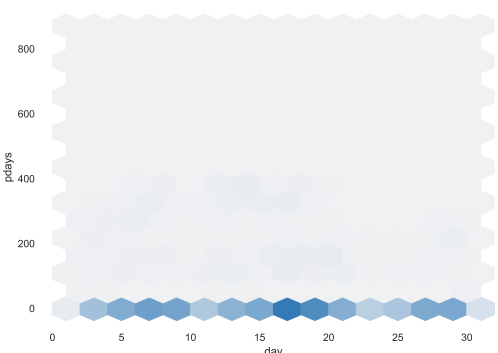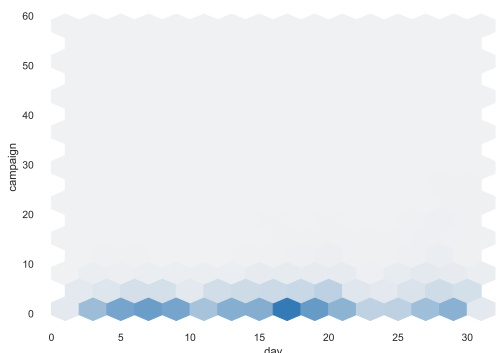

Interaction between column: id and column: age
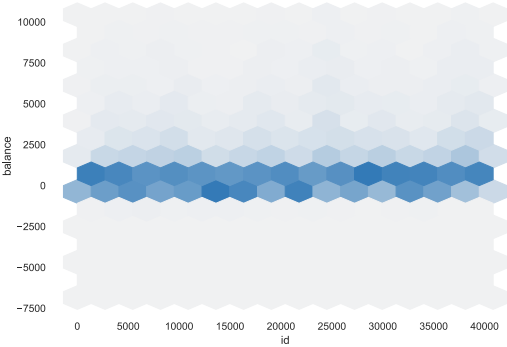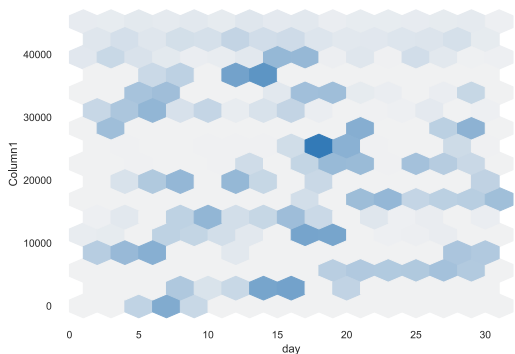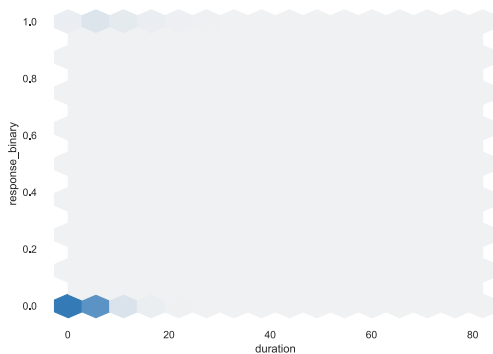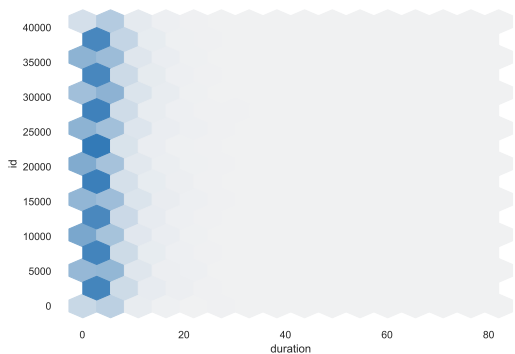

Interaction between column: id and column: balance
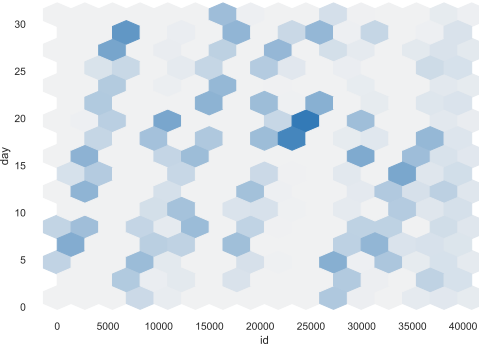
Interaction between column: id and column: day
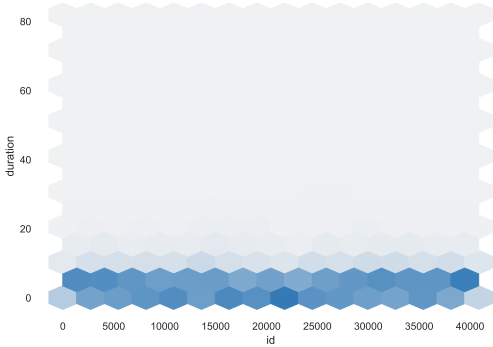
Interaction between column: id and column: duration
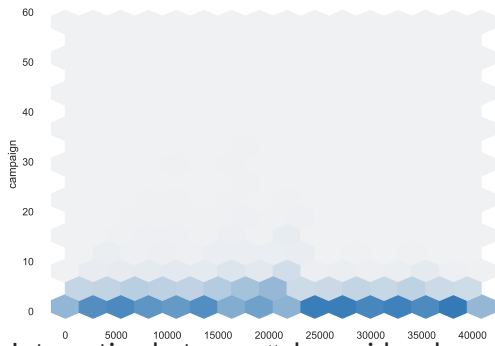
Interaction between column: id and column: campaign
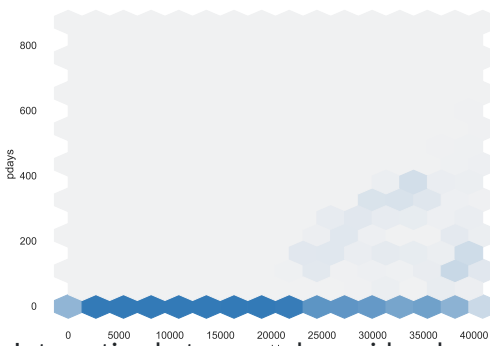
Interaction between column: id and column: pdays
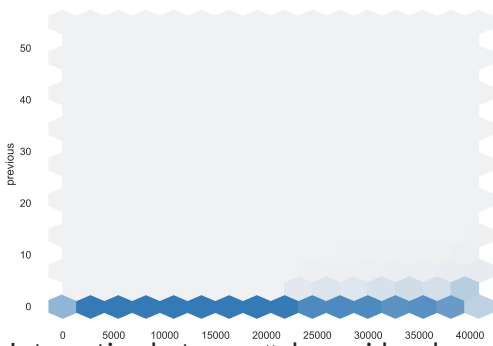
Interaction between column: id and column: previous
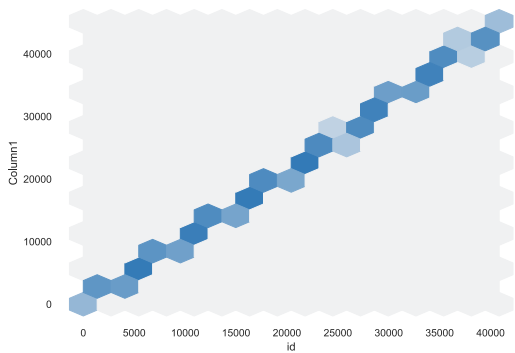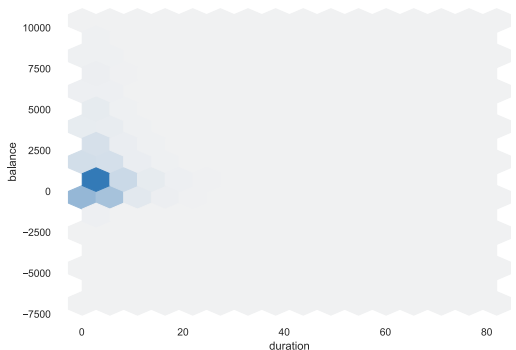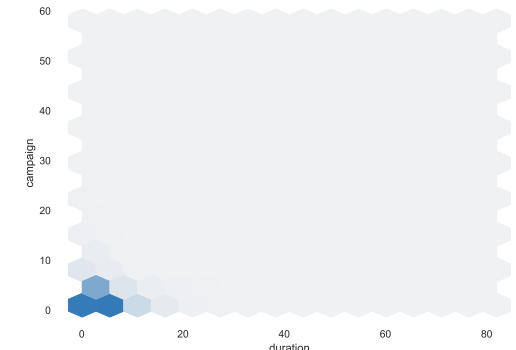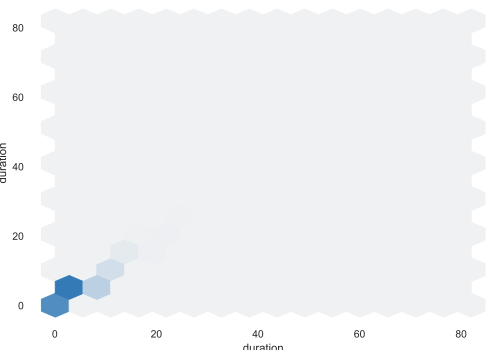
Interaction between column: id and column: Column1
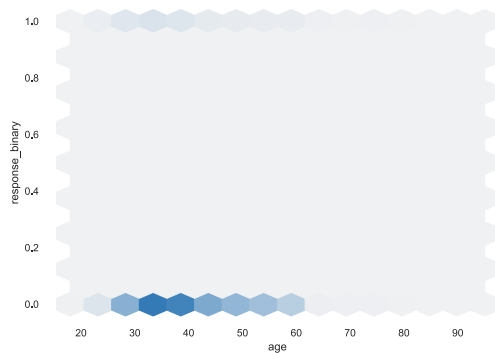
Interaction between column: age and column: response_binary
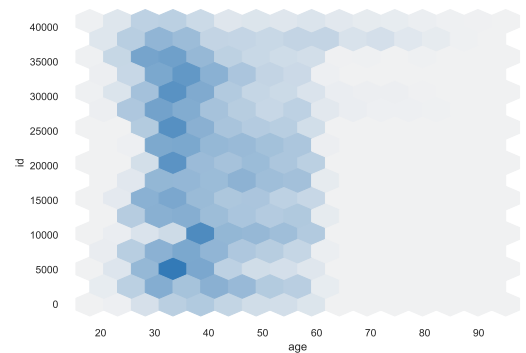
Interaction between column: age and column: id
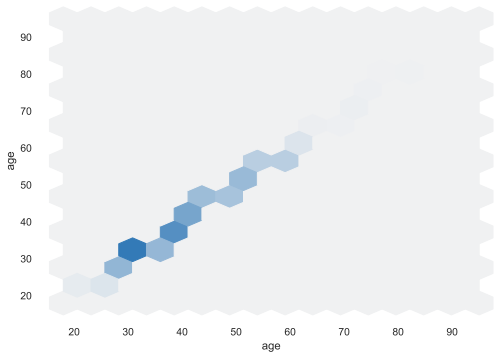
Interaction between column: age and column: age
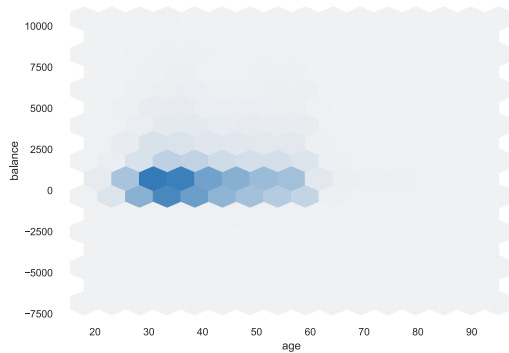
Interaction between column: age and column: balance
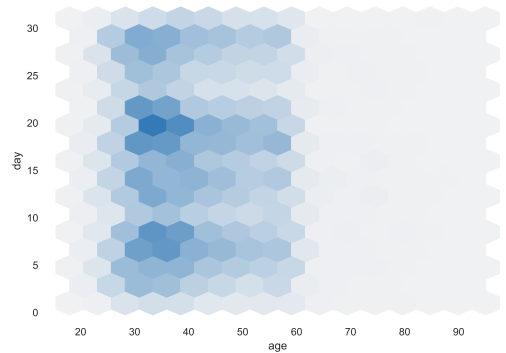
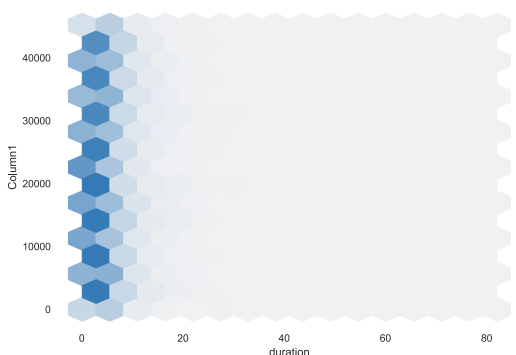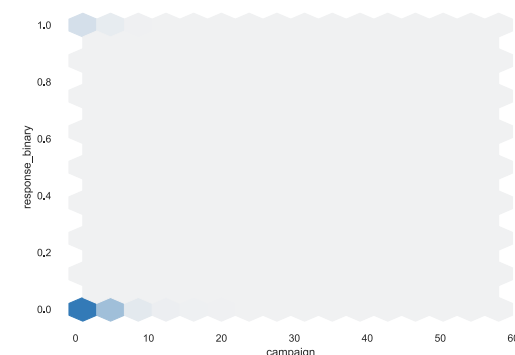Interaction between column: age and column: day
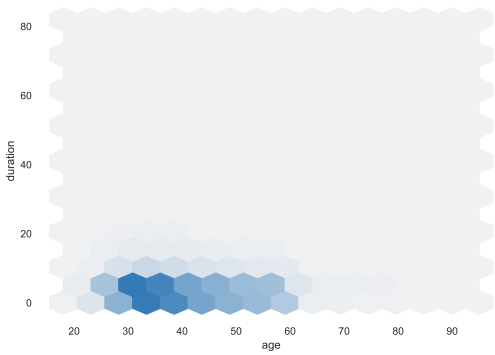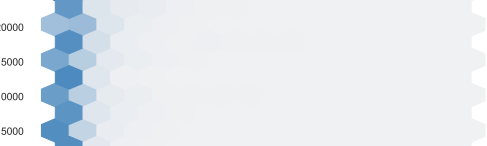

Interaction between column: age and column: duration
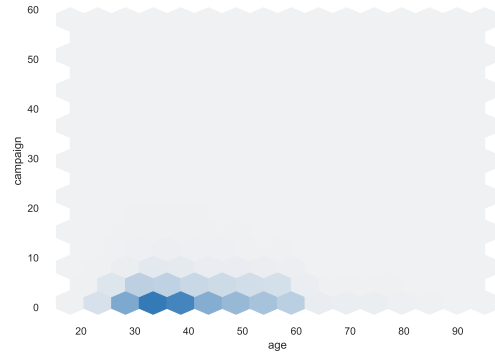
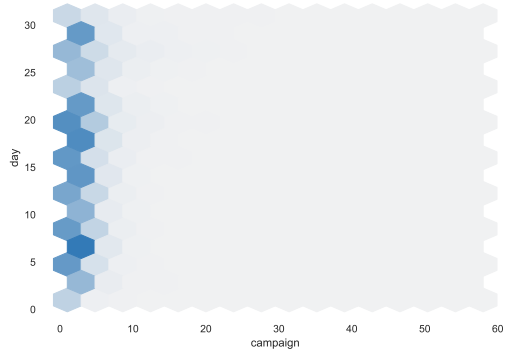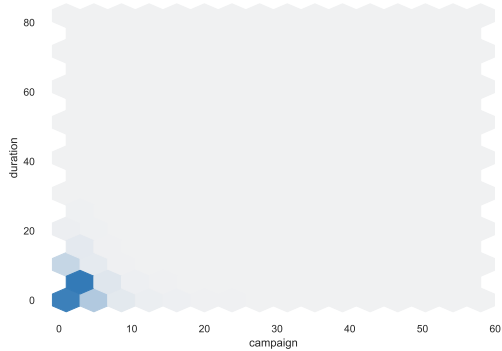Interaction between column: age and column: campaign
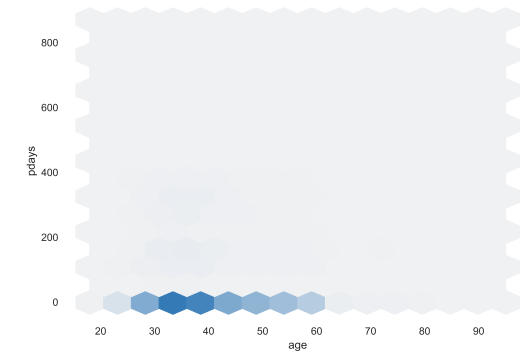
Interaction between column: age and column: pdays
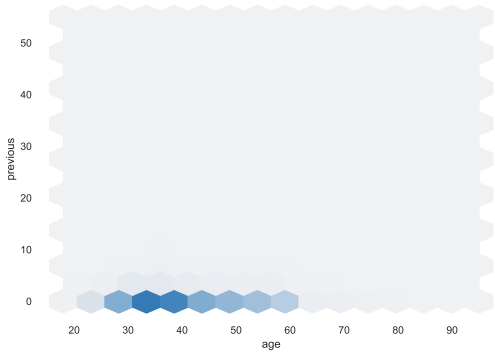
Interaction between column: age and column: previous
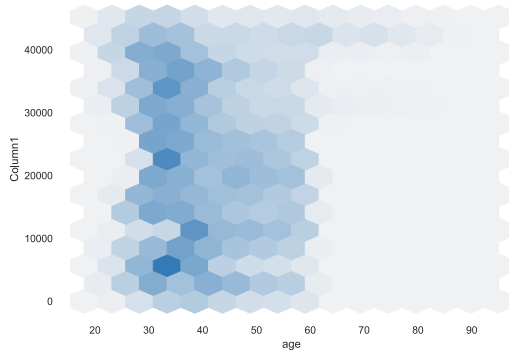
Interaction between column: age and column: Column1
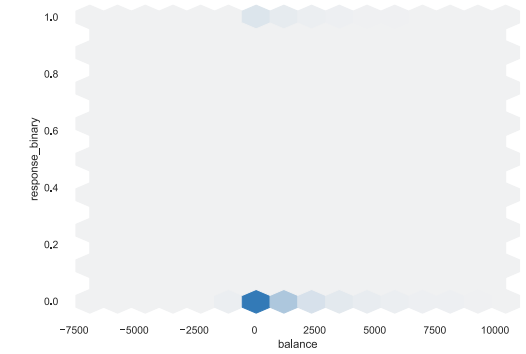
Interaction between column: balance and column: response_binary
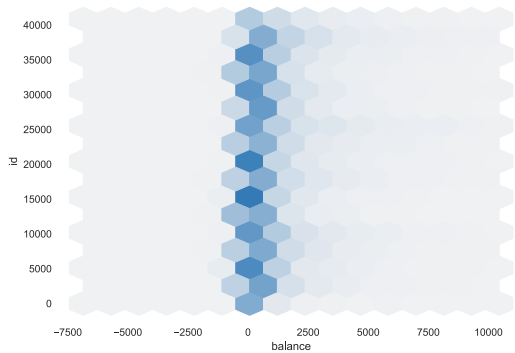
Interaction between column: balance and
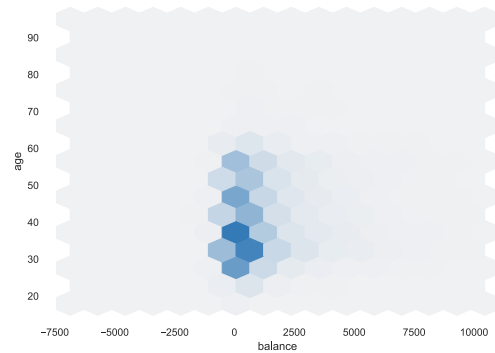
Interaction between column: balance and
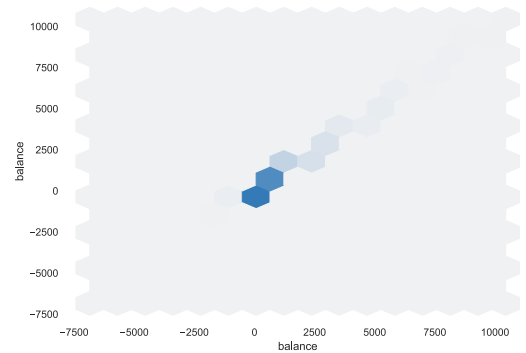
Interaction between column: balance and

column: id

column: age
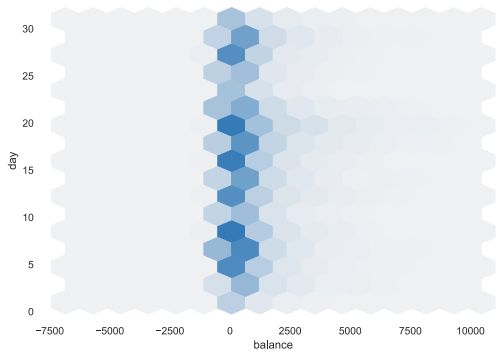
column: balance

Interaction between column: balance and column: day
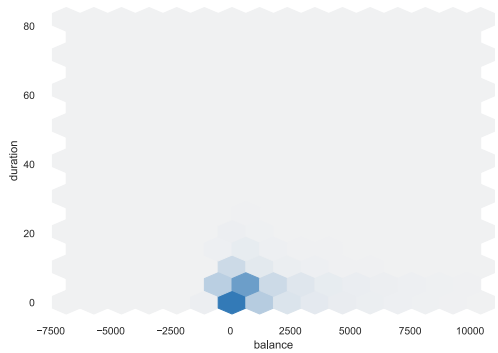
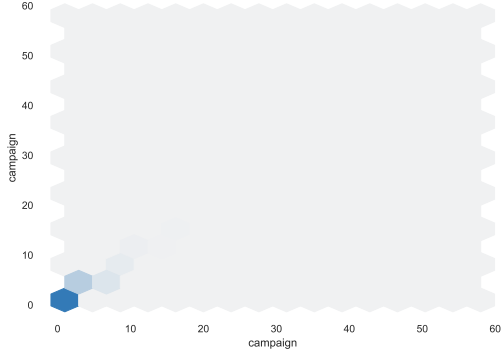Interaction between column: balance and column: duration
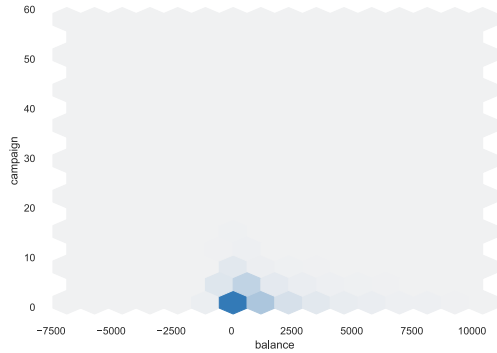
Interaction between column: balance and column: campaign
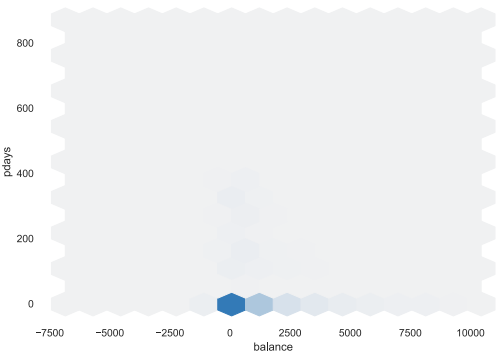
Interaction between column: balance and column: pdays
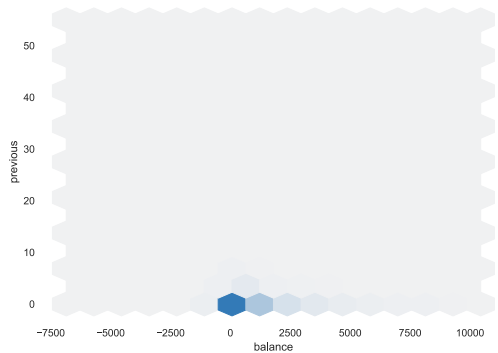
Interaction between column: balance and column: previous
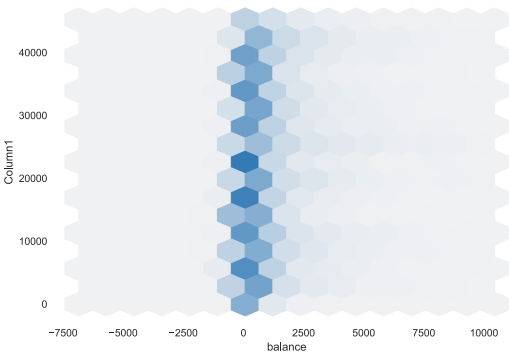
Interaction between column: balance and column: Column1
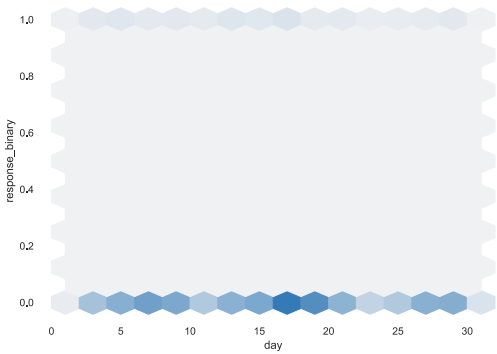
Interaction between column: day and column: response_binary
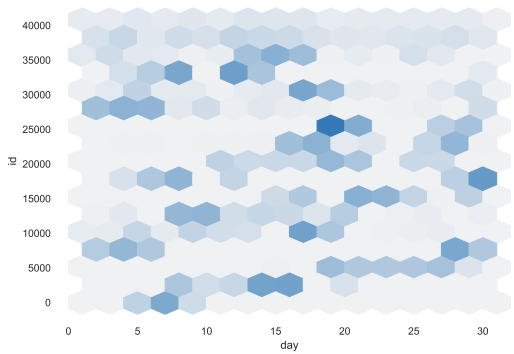
Interaction between column: day and column: id
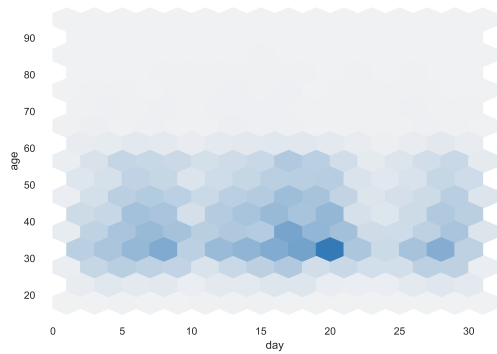
Interaction between column: day and column: age
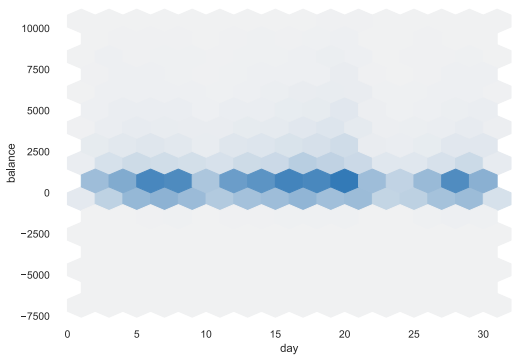
Interaction between column: day and column: balance
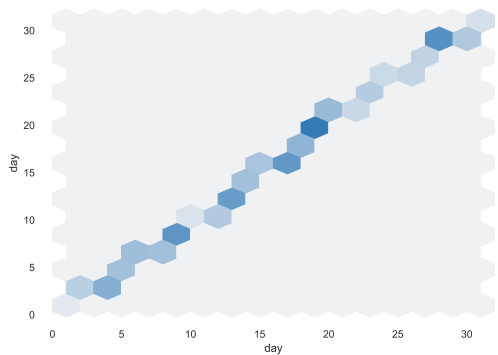
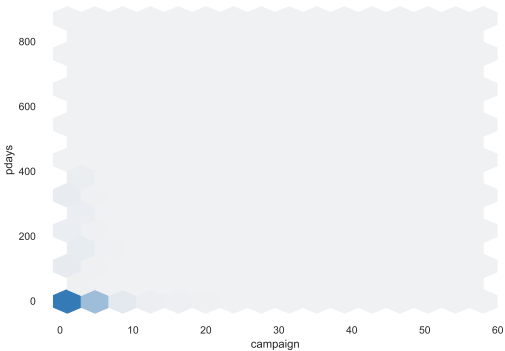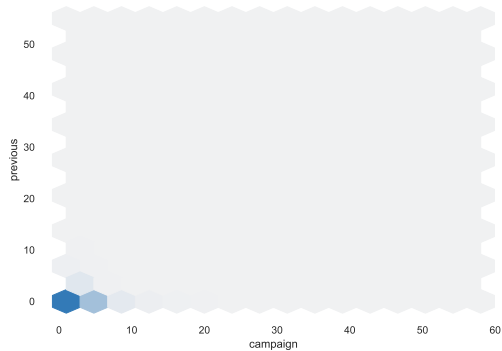Interaction between column: day and column: day
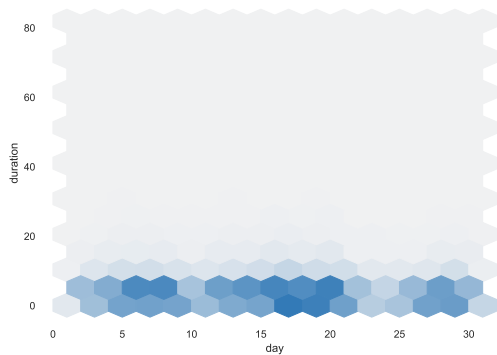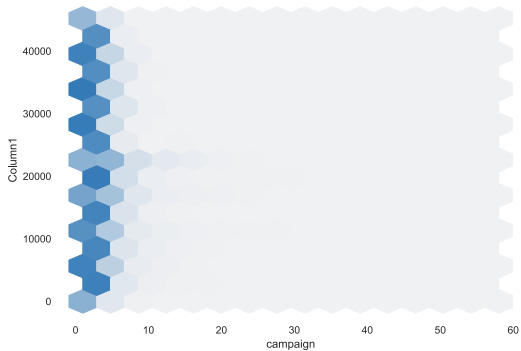

Interaction between column: day and column: duration

Interaction between column: day and column: campaign
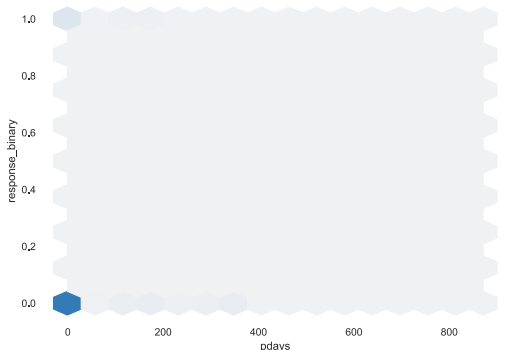
Interaction between column: day and column: pdays

Interaction between column: day and column: previous

Interaction between column: day and column: Column1

Interaction between column: duration and column: response_binary

Interaction between column: duration and column: id

Interaction between column: duration and column: age

Interaction between column: duration and column: balance

Interaction between column: duration and column: day

Interaction between column: duration and column: duration

Interaction between column: duration and column: campaign

Interaction between column: duration and column: pdays

Interaction between column: duration and column: previous

Interaction between column: duration and column: Column1

Interaction between column: campaign and column: response_binary

Interaction between column: campaign and column: id

Interaction between column: campaign and column: age

Interaction between column: campaign and column: balance

Interaction between column: campaign and column: day

Interaction between column: campaign and column: duration

Interaction between column: campaign and column: campaign

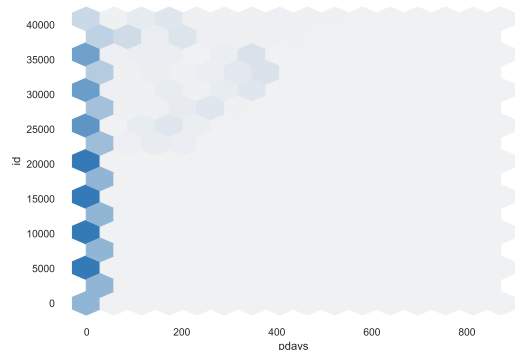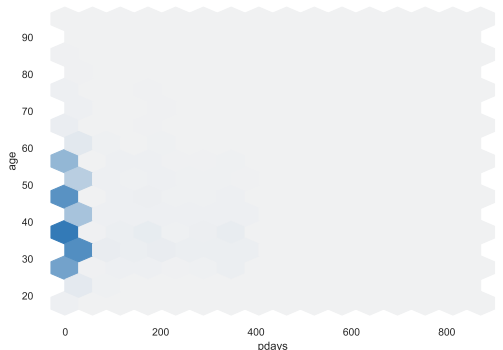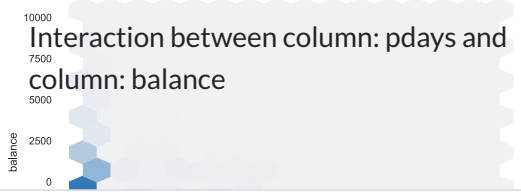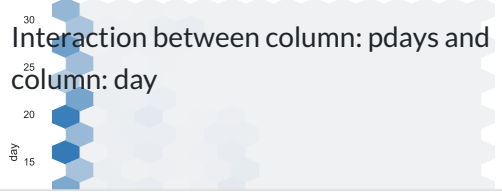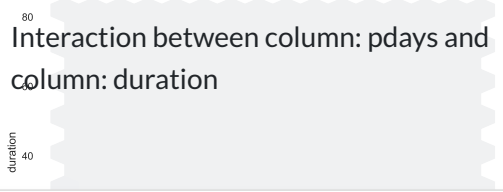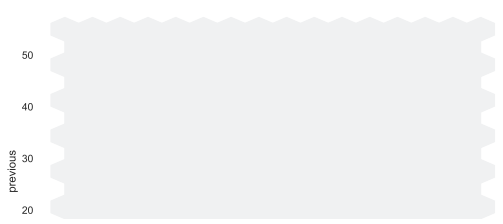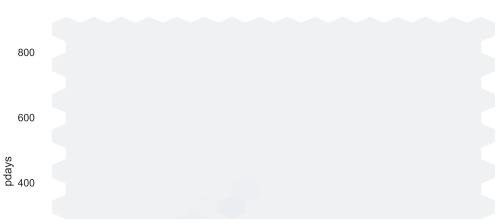Interaction between column: campaign and column: pdays

Interaction between column: campaign and column: previous

Interaction between column: campaign and column: Column1

Interaction between column: pdays and column: response_binary

Interaction between column: pdays and column: id

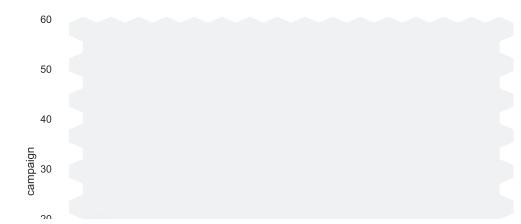Interaction between column: pdays and column: age

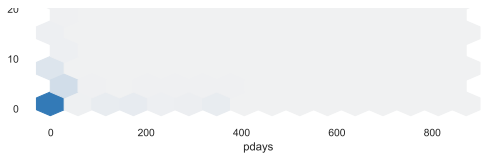Interaction between column: pdays and column: balance

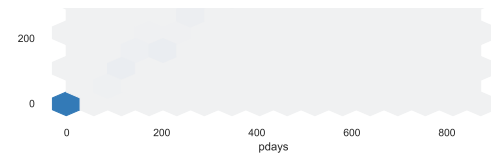Interaction between column: pdays and column: day

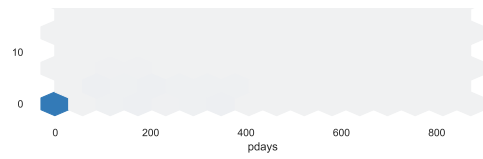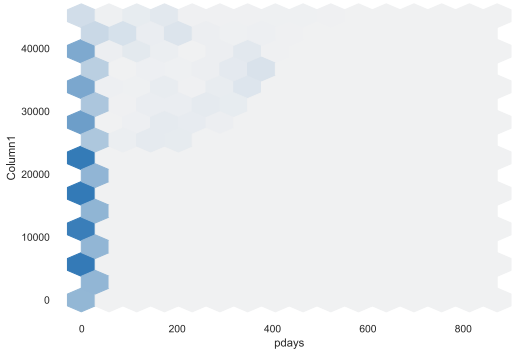Interaction between column: pdays and column: duration

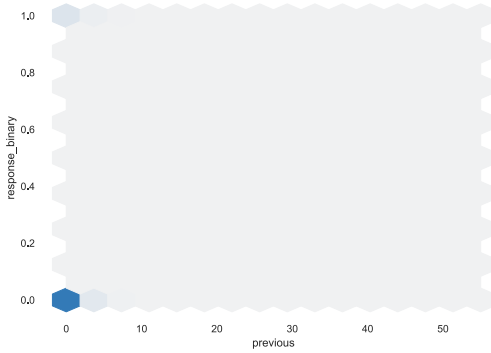Interaction between column: pdays and column: campaign

Interaction between column: pdays and column: pdays
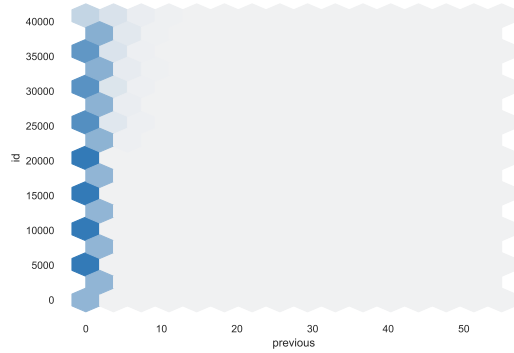

Interaction between column: pdays and column: previous
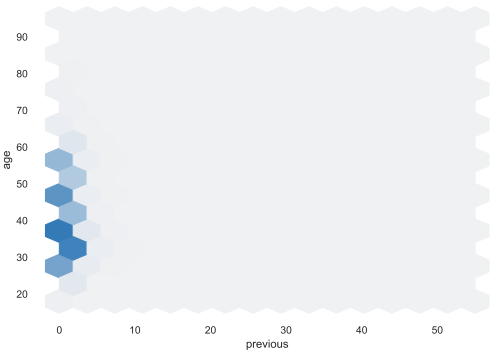

Interaction between column: pdays and column: Column1
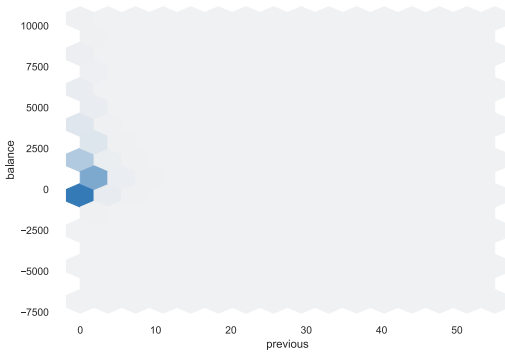

Interaction between column: previous and column: response_binary
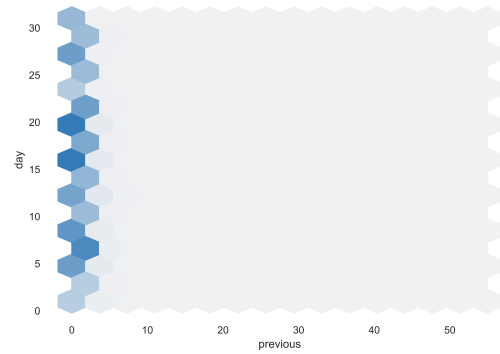

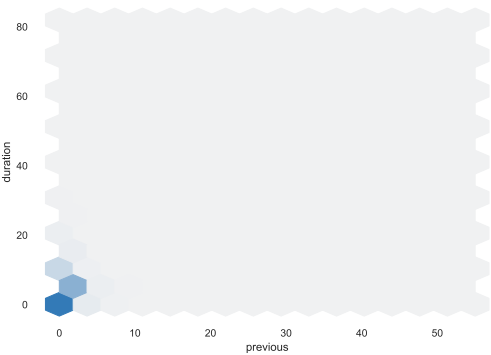Interaction between column: previous and column: id

Interaction between column: previous and column: age
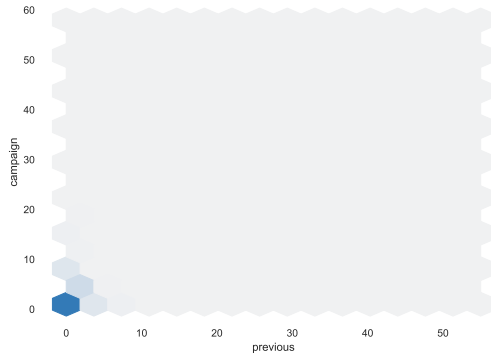

Interaction between column: previous and column: balance
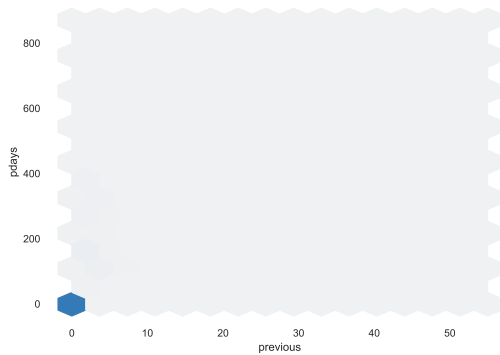

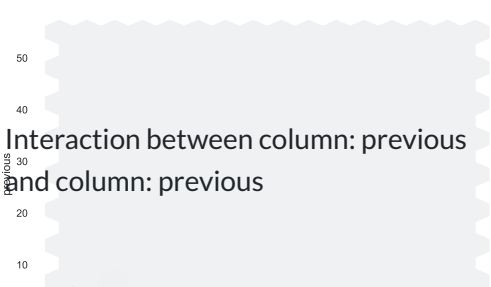Interaction between column: previous and column: day

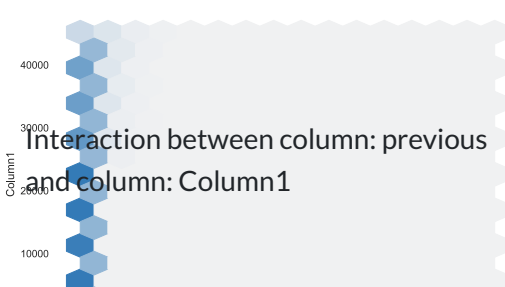Interaction between column: previous and column: duration

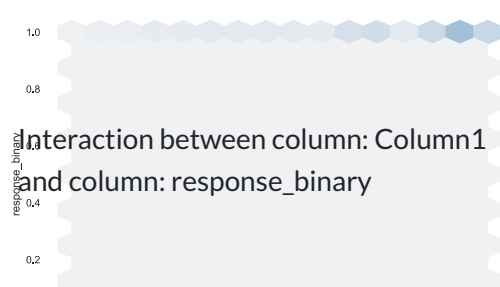Interaction between column: previous and column: campaign

Interaction between column: previous and column: pdays

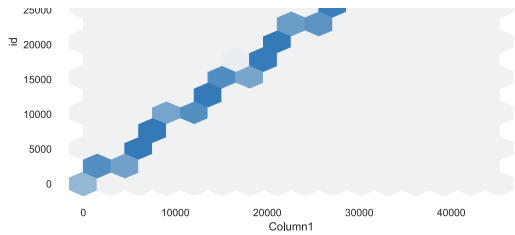Interaction between column: previous and column: previous

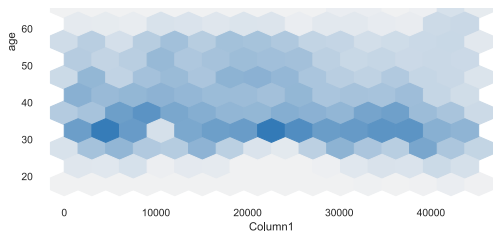Interaction between column: previous and column: Column1

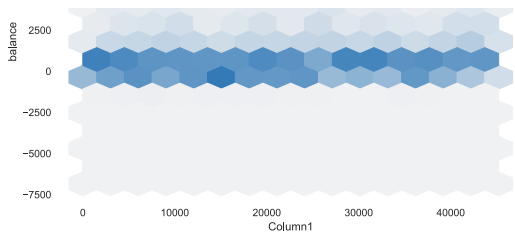Interaction between column: Column1 and column: response_binary

Interaction between column: Column1 and column: id

Interaction between column: Column1 and column: age

Interaction between column: Column1 and column: balance
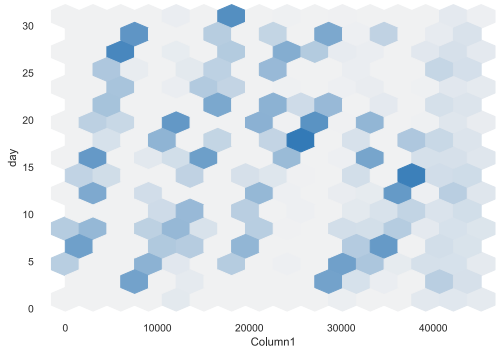
Interaction between column: Column1 and column: day
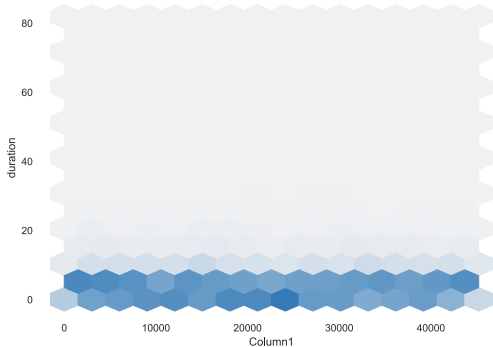
Interaction between column: Column1 and column: duration
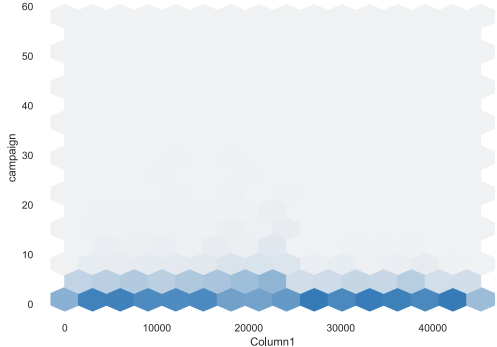
Interaction between column: Column1 and column: campaign
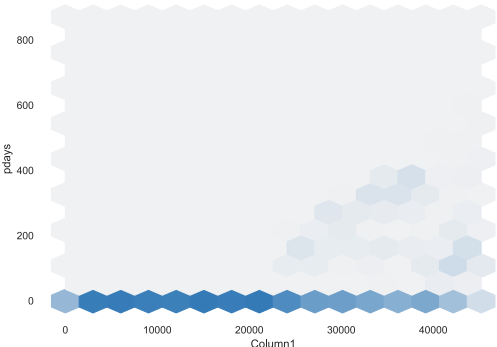
Interaction between column: Column1 and column: pdays
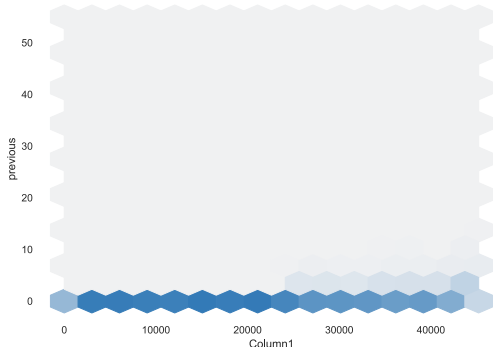
Interaction between column: Column1 and column: previous
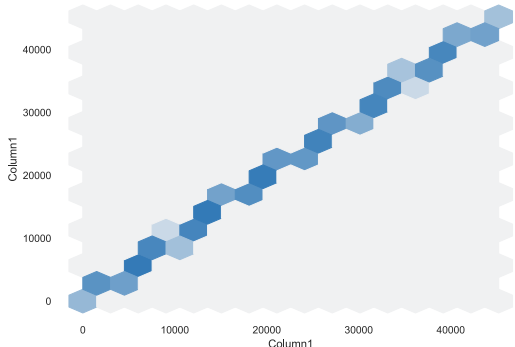
Interaction between column: Column1 and column: Column1
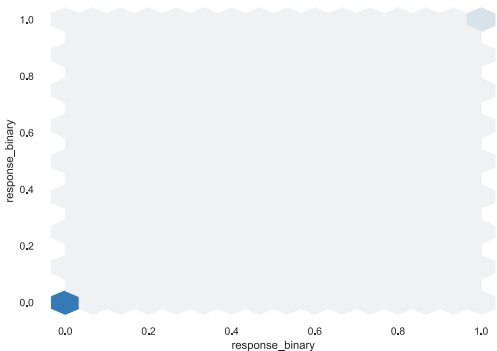
Interaction between column: response_binary and column: response_binary
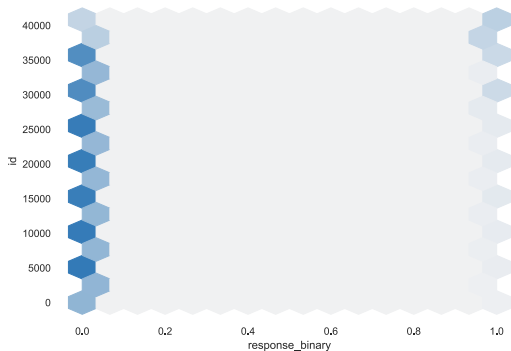
Interaction between column: response_binary and column: id
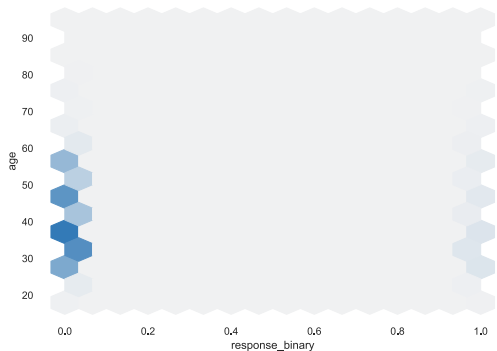
Interaction between column: response_binary and column: age

Interaction between column: response_binary and column: balance

Interaction between column: response_binary and column: day

Interaction between column: response_binary and column: duration

Interaction between column: response_binary and column: campaign

Interaction between column: response_binary and column: pdays

Interaction between column: response_binary and column: previous

Interaction between column: response_binary and column: Column1
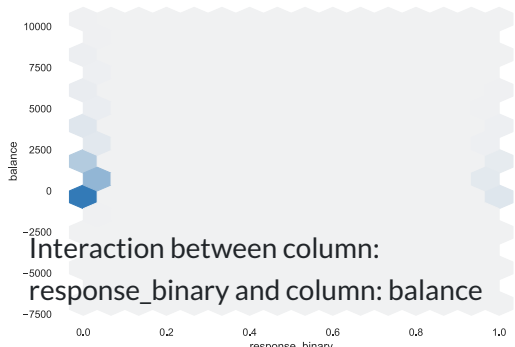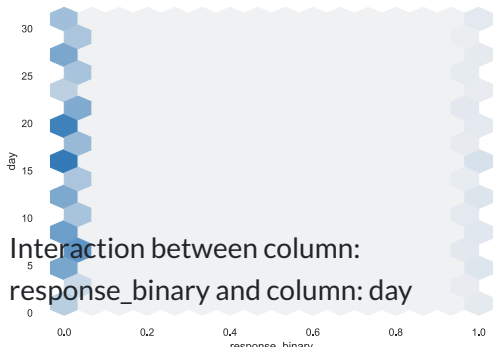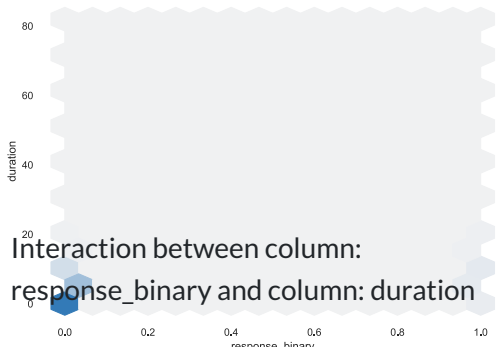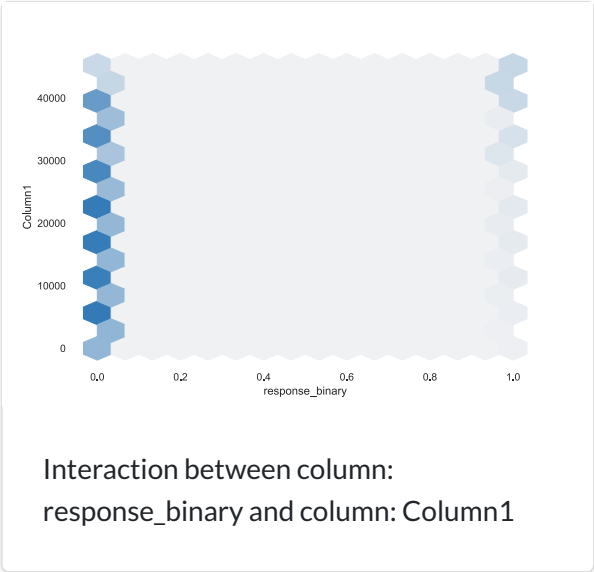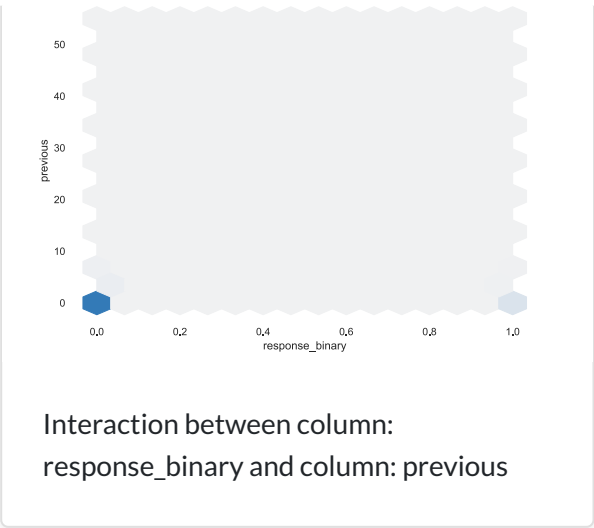
Correlations
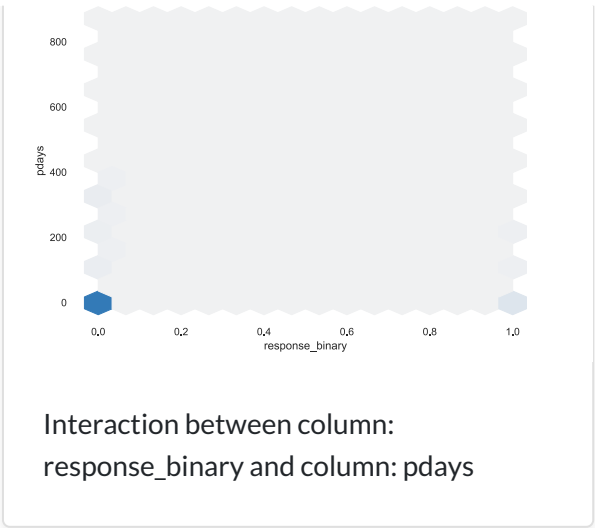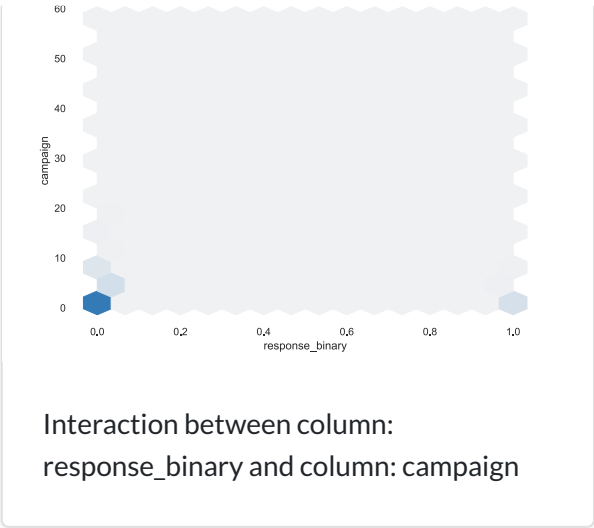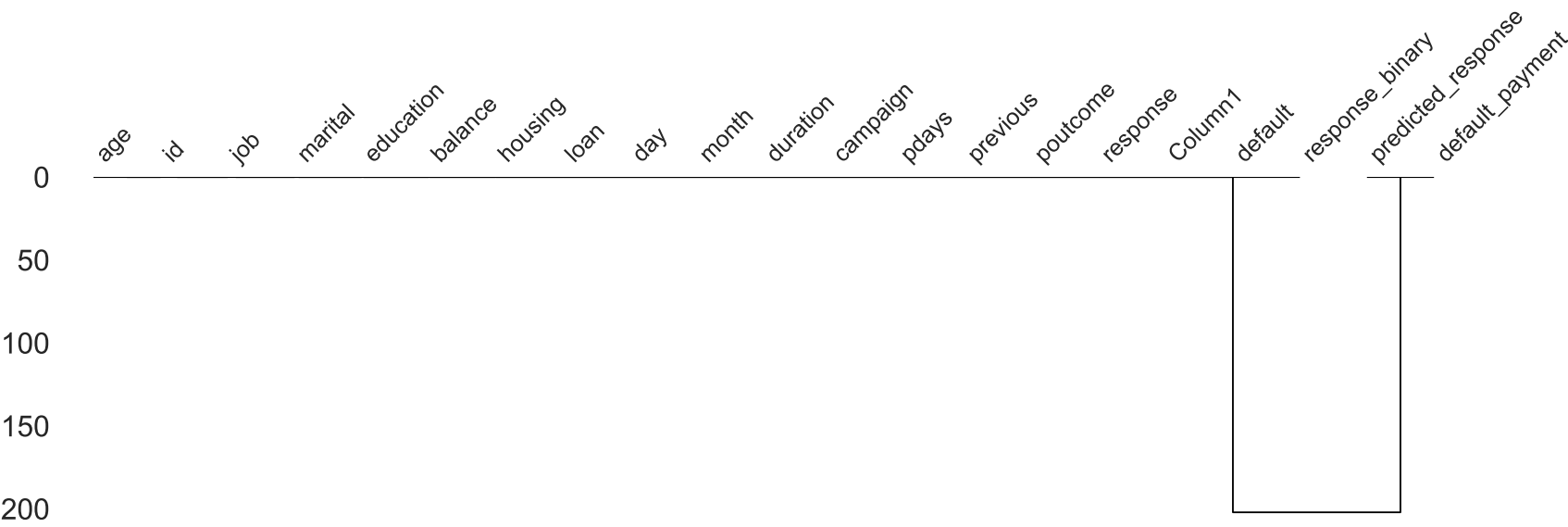
Missing values

Count   Matrix   Dendrogram

The dendrogram allows you to more fully correlate variable completion, revealing trends deeper than the pairwise ones visible in the correlation heatmap.

Sample

First rows

id	age	job	marital	education	default_payment	balance	housing	loan	day	month	duration	camp
1	58	management	married	tertiary	None	2143	false	false	5	may	4.35	1
2	44	technician	single	secondary	None	29	false	false	5	may	2.52	1
3	33	entrepreneur	married	secondary	None	2	false	false	5	may	1.27	1
4	35	management	married	tertiary	None	231	false	false	5	may	2.32	1
5	28	management	single	tertiary	None	447	false	false	5	may	3.62	1
6	42	entrepreneur	divorced	tertiary	None	2	false	false	5	may	6.33	1
7	58	retired	married	primary	None	121	false	false	5	may	0.83	1
8	43	technician	single	secondary	None	593	false	false	5	may	0.92	1
9	41	admin.	divorced	secondary	None	270	false	false	5	may	3.7	1
10	29	admin.	single	secondary	None	390	false	false	5	may	2.28	1

Last rows

id	age	job	marital	education	default_payment	balance	housing	loan	day	month	duration	can
40832	38	technician	married	secondary	None	557	false	false	16	nov	25.93	4
40833	53	management	married	tertiary	None	583	false	false	17	nov	3.77	1
40834	34	admin.	single	secondary	None	557	false	false	17	nov	3.73	1
40835	23	student	single	tertiary	None	113	false	false	17	nov	4.43	1
40836	73	retired	married	secondary	None	2850	false	false	17	nov	5	1
40837	25	technician	single	secondary	None	505	false	false	17	nov	6.43	2
40838	51	technician	married	tertiary	None	825	false	false	17	nov	16.28	3
40839	71	retired	divorced	primary	None	1729	false	false	17	nov	7.6	2
40840	72	retired	married	secondary	None	5715	false	false	17	nov	18.78	5
40841	57	blue-collar	married	secondary	None	668	false	false	17	nov	8.47	4

Warnings(48)

CONSTANT alert on column housing

CONSTANT alert on column loan

CONSTANT alert on column response

HIGH_CORRELATION alert on column id

HIGH_CORRELATION alert on column pdays

HIGH_CORRELATION alert on column previous

HIGH_CORRELATION alert on column Column1

HIGH_CORRELATION alert on column id

HIGH_CORRELATION alert on column pdays

HIGH_CORRELATION alert on column previous

HIGH_CORRELATION alert on column Column1

HIGH_CORRELATION alert on column id

HIGH_CORRELATION alert on column pdays

HIGH_CORRELATION alert on column previous

HIGH_CORRELATION alert on column Column1

HIGH_CORRELATION alert on column poutcome

HIGH_CORRELATION alert on column job

HIGH_CORRELATION alert on column housing

HIGH_CORRELATION alert on column month

HIGH_CORRELATION alert on column default

HIGH_CORRELATION alert on column marital

HIGH_CORRELATION alert on column loan

HIGH_CORRELATION alert on column response

HIGH_CORRELATION alert on column education

HIGH_CORRELATION alert on column id

HIGH_CORRELATION alert on column job

HIGH_CORRELATION alert on column education

HIGH_CORRELATION alert on column day

HIGH_CORRELATION alert on column month

HIGH_CORRELATION alert on column pdays

HIGH_CORRELATION alert on column poutcome

HIGH_CORRELATION alert on column Column1

HIGH_CORRELATION alert on column response_binary

MISSING alert on column default_payment

MISSING alert on column predicted_response

REJECTED alert on column default_payment

REJECTED alert on column housing

REJECTED alert on column loan

REJECTED alert on column response

REJECTED alert on column predicted_response

REJECTED alert on column predicted_response

UNIFORM alert on column id

UNIQUE alert on column id

UNIQUE alert on column Column1

UNSUPPORTED alert on column default_payment

UNSUPPORTED alert on column predicted_response

ZEROS alert on column balance

ZEROS alert on column previous

ZEROS alert on column response_binary

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