

Power Bi capstone project

ProjectTitle:BankLoanPerformanceAnalysis

ProblemStatement:

In today's data-driven world, understanding how borrower details and loan characteristics impact loan performance is very important for banking institutions. This project seeks to delve deep into a lending loan dataset to uncover the relationship between borrower behavior (such as employment length, income, and debt-to-income ratio) and loan characteristics (including amount, term, and interest rate) to unearth critical insights into loan performance metrics. By examining patterns in loan statuses such as fully paid, charged off, or late payments, this analysis aims to empower banking institutions with actionable insights to optimize loan lending strategies, mitigate credit risk, and enhance overall portfolio performance.

DatasetDownload:

<https://drive.google.com/uc?export=download&id=1yNL9gfv-DID3cEW9o2GJvtJ9Bzbm37R7>

The dataset "bank loan.xlsx" contains two sheets:

1. LoanDetails: This sheet contains information about each loan.
2. BorrowerDetails: This sheet provides details about the borrowers.

Data Dictionary:

TableName	FieldName	Description
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Data Dictionary:

Table Name	Field Name	Description
LoanDetails	id	Unique identifier for each loan.
	loan_amnt	The amount of money requested by the borrower.
	funded_amnt	The actual amount of money funded for the loan.
	term	The duration of the loan in months.
	int_rate	The interest rate of the loan.
	installment	The monthly payment owed by the borrower.
	grade	The loan grade assigned by the lending company.
	sub_grade	The loan subgrade assigned by the lending company.
	issue_d	The month in which the loan was funded.
	purpose	The reason provided by the borrower for the loan.

BorrowerDetails	id	Unique identifier for each loan.
	member_id	Unique identifier for each borrower.
	emp_length	Employment length in years.
	home_ownership	The status of home ownership reported by the borrower.
	annual_inc	The annual income reported by the borrower.
	verification_status	Indicates if the borrower's income was verified.
	dti	The debt-to-income ratio of the borrower.
	delinq_2yrs	The number of past-due incidences in the borrower's credit file.
	last_pymnt_d	The month of the last payment received.
	total_pymnt	The total amount received in payments.
	out_prncp	The remaining outstanding principal amount of the loan.

ProjectStepsandObjectives:

1) ImportingData

➤ ***Importthe"LoanDetails"and"BorrowerDetails"sheetsfromthe"bankloan.xlsx" file into Power BI.***

➤ Replacemissingvalues(null)inthe'emp_length'columnofthe"BorrowerDetails"

table with '0 year'.

powerbi capstone projects 1

File Home Transform Add Column View Tools Help

Close & Apply New Recent Enter Data source settings Manage Parameters Refresh Advanced Editor Choose Remove Keep Remove Split Group Data Type: Text Merge Queries Append Queries Text Analytics Vision Azure Machine Learning

Close New Query Data Sources Parameters Query Manage Columns Reduce Rows Sort Transform Combine AI Insights

Queries [2] X ✓ fx = Table.SelectRows(#"Replaced Value", each ([emp_length] = "0 years"))

LoanDetails BorrowerDetails

	member_id	loan_id	emp_length	home_ownership	annual_inc	verification_status	dti
1	1302032	1067644	0 years	OWN	12000	Source Verified	
2	1290516	1058717	0 years	MORTGAGE	60000	Verified	
3	1298394	1064582	0 years	RENT	24000	Source Verified	
4	1298164	1064366	0 years	RENT	18408	Not Verified	
5	1296491	1063912	0 years	MORTGAGE	31500	Verified	
6	1295380	1062897	0 years	MORTGAGE	37800	Not Verified	
7	1294654	1062781	0 years	MORTGAGE	70000	Source Verified	
8	1294602	1062535	0 years	MORTGAGE	42000	Not Verified	
9	1266720	1036838	0 years	MORTGAGE	32000	Verified	
10	1292992	1061194	0 years	OWN	41100	Not Verified	
11	1292813	1060848	0 years	MORTGAGE	46212	Verified	
12	1292242	1060485	0 years	MORTGAGE	45696	Verified	
13	1290942	1059128	0 years	MORTGAGE	25000	Not Verified	
14	1287582	1056011	0 years	MORTGAGE	17352	Verified	
15	1282516	1051228	0 years	OWN	34848	Verified	
16	1246619	1018385	0 years	MORTGAGE	24000	Verified	
17	1289493	1057726	0 years	RENT	60000	Verified	
18	1288882	1057318	0 years	RENT	35000	Not Verified	
19	1146931	926180	0 years	OWN	40000	Source Verified	
20	1287654	1056081	0 years	OWN	57000	Source Verified	
21	1287282	1055716	0 years	RENT	27050	Source Verified	
22	1287125	1055566	0 years	RENT	84855	Verified	
23	1286548	1054695	0 years	MORTGAGE	100000	Source Verified	
24	1286863	1055300	0 years	OWN	25000	Not Verified	
25	1286778	1055222	0 years	MORTGAGE	48000	Not Verified	
26	1286555	1054702	0 years	RENT	40800	Verified	
27	1285571	1053966	0 years	RENT	30000	Not Verified	
28							

11 COLUMNS, 199+ ROWS Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 12:33

Breaking news Vinesh Phogat R...

Q Search

ENG IN 16:28 06-09-2024

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File

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New Source

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Properties Advanced Editor

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Choose Columns

Remove Columns

Keep Rows

Remove Rows

Sort

Split Column

Group By

Replace Values

Data Type: Date

Use First Row as Headers

Merge Queries

Append Queries

Combine Files

Text Analytics

Vision

Azure Machine Learning

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Transform

Combine

AI Insights

Queries [2]

LoanDetails

BorrowerDetails

Table.SelectRows(#"Remove rows 1", each true)

	verification_status	dti	delinq_2yrs	last_pymnt_d	total_pymnt	out_prncp
1	24000 Verified	27.65	0	01-01-2015	5861.071414	
2	30000 Source Verified	1	0	01-04-2020	1008.71	
3	12252 Not Verified	8.72	0	01-06-2021	3003.653644	
4	49200 Source Verified	20	0	01-01-2015	12226.30221	
5	80000 Source Verified	17.94	0	01-01-2016	3242.17	76
6	36000 Source Verified	11.2	0	01-01-2015	5631.377753	
7	47004 Not Verified	23.51	0	01-01-2016	8136.84	1889
8	48000 Source Verified	5.35	0	01-01-2015	3938.144334	
9	40000 Source Verified	5.55	0	01-04-2019	646.02	
10	15000 Verified	18.08	0	01-11-2019	1476.19	
11	72000 Not Verified	16.12	0	01-06-2020	7677.52	
12	75000 Source Verified	10.78	0	01-09-2020	13943.08	
13	30000 Source Verified	10.08	0	01-07-2019	2270.7	
14	15000 Source Verified	12.56	0	01-01-2015	3478.981915	
15	100000 Source Verified	7.06	0	01-10-2020	7471.99	
16	28000 Not Verified	20.31	0	01-01-2015	1270.171106	
17	42000 Not Verified	18.6	0	01-01-2015	12519.26045	
18	110000 Not Verified	10.52	0	01-05-2020	3785.02	
19	84000 Verified	18.44	2	01-02-2015	7164.499852	
20	77385.19 Not Verified	9.86	0	01-07-2019	9459.96	
21	43370 Verified	26.53	0	01-08-2015	27663.04267	
22	105000 Verified	13.22	0	01-09-2020	14025.4	
23	50000 Source Verified	11.18	0	01-01-2015	11902.56157	
24	50000 Not Verified	16.01	0	01-10-2020	11536.31	
25	76000 Not Verified	2.4	0	01-10-2019	2050.14	
26	92000 Not Verified	29.44	0	01-09-2019	15823.48	
27	60000 Not Verified	15.22	0	null	0	

Query Settings

PROPERTIES

Name

BorrowerDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Replaced Value

Remove rows 1

Filtered Rows1

Remove rows 2

Filtered Rows

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

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File Home Transform Add Column View Tools Help

Close & Apply New Recent Enter Data Sources Parameters Query Manage Columns Reduce Rows Sort Transform Combine AI Insights

Query Settings

Table.SelectRows(*Remove rows 2*, each true)

	verification_status	1.2 dti	2.3 delinq_yrs	last_pymnt_d	1.2 total_pymnt	1.2 out_prncp
1	24000 Verified		27.65	0	01-01-2015	5861.071414
2	30000 Source Verified		.1	0	01-04-2020	1008.71
3	12252 Not Verified		8.72	0	01-06-2021	3003.653644
4	49200 Source Verified		.20	0	01-01-2015	12226.3021
5	80000 Source Verified		17.94	0	01-01-2016	3242.17
6	36000 Source Verified		11.2	0	01-01-2015	5631.377753
7	47004 Not Verified		23.51	0	01-01-2016	8136.84
8	48000 Source Verified		5.35	0	01-01-2015	3938.144334
9	40000 Source Verified		5.55	0	01-04-2019	646.02
10	15000 Verified		18.08	0	01-11-2019	1476.19
11	72000 Not Verified		16.12	0	01-06-2020	7677.52
12	75000 Source Verified		10.78	0	01-09-2020	13943.08
13	30000 Source Verified		10.08	0	01-07-2019	2270.7
14	15000 Source Verified		12.56	0	01-01-2015	3478.981915
15	100000 Source Verified		7.06	0	01-10-2020	7471.99
16	28000 Not Verified		20.31	0	01-01-2015	1270.171106
17	42000 Not Verified		18.6	0	01-01-2015	12519.26045
18	110000 Not Verified		10.52	0	01-05-2020	3785.02
19	84000 Not Verified		18.44	2	01-02-2015	7164.499852
20	77385.19 Not Verified		9.86	0	01-07-2019	9459.96
21	43370 Verified		26.53	0	01-08-2015	27663.04267
22	105000 Verified		13.22	0	01-09-2020	14025.4
23	50000 Source Verified		11.18	0	01-01-2015	11902.56157
24	50000 Not Verified		16.01	0	01-10-2020	11536.31
25	76000 Not Verified		2.4	0	01-10-2019	2050.14
26	92000 Verified		29.44	0	01-09-2019	15823.48
27	50004 Not Verified		13.97	3	01-12-2019	1609.12
28						

11 COLUMNS, 99+ ROWS Column profiling based on top 1000 rows

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File

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New Source

Recent Sources

Enter Data

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Remove Rows

Sort

Split Column

Group By

Replace Values

Data Type: Whole Number

Use First Row as Headers

Merge Queries

Append Queries

Combine Files

Text Analytics

Vision

Azure Machine Learning

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Sort

Transform

Combine

AI Insights

Queries [2]

LoanDetails

BorrowerDetails

Table.SelectRows(#"Removed Duplicates", each true)

id	loan_amnt	12_funded_amnt	term	12_int_rate	12_installment	grade
1	1077501	5000	4975 36 months		10.65	162.87 B
2	1077430	2500	2500 60 months		15.27	59.83 C
3	1077175	2400	2400 36 months		15.96	84.33 C
4	1076863	10000	10000 36 months		13.49	339.31 C
5	1073358	3000	3000 60 months		12.69	67.79 B
6	1073269	5000	5000 36 months		7.9	156.46 A
7	1069639	7000	7000 60 months		15.96	170.08 C
8	1072053	3000	3000 36 months		18.64	109.43 E
9	1071795	5600	5600 60 months		21.28	152.39 F
10	1071570	5375	5350 60 months		12.69	121.45 B
11	1070078	6500	6500 60 months		14.65	153.45 C
12	1069908	12000	12000 36 months		12.69	402.54 B
13	1064687	9000	9000 36 months		13.49	305.38 C
14	1069866	3000	3000 36 months		9.91	96.68 B
15	1069057	10000	10000 36 months		10.65	325.74 B
16	1069759	1000	1000 36 months		16.29	35.31 D
17	1065775	10000	10000 36 months		15.27	347.98 C
18	1069971	3600	3600 36 months		6.03	109.57 A
19	1062474	6000	6000 36 months		11.71	198.46 B
20	1069742	9200	9200 36 months		6.03	280.01 A
21	1069740	20250	19142.16108 60 months		15.27	484.63 C
22	1039153	21000	21000 36 months		12.42	701.73 B
23	1069710	10000	10000 36 months		11.71	330.76 B
24	1069700	10000	10000 36 months		11.71	330.76 B
25	1069559	6000	6000 36 months		11.71	198.46 B
26	1069697	15000	15000 36 months		9.91	483.38 B
27	1069800	15000	8725 36 months		14.27	514.64 C

Query Settings

PROPERTIES

Name

LoanDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

underscores (e.g., "credit card" instead of "credit_card").

File

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Manage Parameters

Refresh Preview

Properties

Advanced Editor

Manage

Choose Columns

Remove Columns

Keep Rows

Remove Rows

Sort

Split Column

Group By

Replace Values

Data Type: Text

Use First Row as Headers

Merge Queries

Append Queries

Combine Files

Text Analytics

Vision

Azure Machine Learning

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Sort

Transform

Combine

AI Insights

Queries [2]

LoanDetails

BorrowerDetails

12 installment

grade

sub_grade

issue_d

loan_status

purpose

1	10.65	162.87	B	B2	01-12-2018	Fully Paid	credit card
2	15.27	59.83	C	C4	01-12-2018	Charged Off	car
3	15.96	84.33	C	C5	01-12-2018	Fully Paid	small business
4	13.49	339.31	C	C1	01-12-2018	Fully Paid	other
5	12.69	67.79	B	B5	01-12-2018	Current	other
6	7.9	156.46	A	A4	01-12-2018	Fully Paid	wedding
7	15.96	170.08	C	C5	01-12-2018	Current	debt consolidation
8	18.64	109.43	E	E1	01-12-2018	Fully Paid	car
9	21.28	152.39	F	F2	01-12-2018	Charged Off	small business
10	12.69	121.45	B	B5	01-12-2018	Charged Off	other
11	14.65	153.45	C	C3	01-12-2018	Fully Paid	debt consolidation
12	12.69	402.54	B	B5	01-12-2018	Fully Paid	debt consolidation
13	13.49	305.38	C	C1	01-12-2018	Charged Off	debt consolidation
14	9.91	96.68	B	B1	01-12-2018	Fully Paid	credit card
15	10.65	325.74	B	B2	01-12-2018	Charged Off	other
16	16.29	35.31	D	D1	01-12-2018	Fully Paid	debt consolidation
17	15.27	347.98	C	C4	01-12-2018	Fully Paid	home improvement
18	6.03	109.57	A	A1	01-12-2018	Fully Paid	major purchase
19	11.71	198.46	B	B3	01-12-2018	Fully Paid	medical
20	6.03	280.01	A	A1	01-12-2018	Fully Paid	debt consolidation
21	15.27	484.63	C	C4	01-12-2018	Fully Paid	debt consolidation
22	12.42	701.73	B	B4	01-12-2018	Charged Off	debt consolidation
23	11.71	330.76	B	B3	01-12-2018	Fully Paid	credit card
24	11.71	330.76	B	B3	01-12-2018	Fully Paid	debt consolidation
25	11.71	198.46	B	B3	01-12-2018	Charged Off	major purchase
26	9.91	483.38	B	B1	01-12-2018	Fully Paid	credit card
27	14.27	514.64	C	C2	01-12-2018	Charged Off	debt consolidation

Query Settings

PROPERTIES

Name

LoanDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

Replaced Value

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

➤ Format the 'purpose' column to proper case.

powerpi capstone projects 1

FileHomeTransformAdd ColumnViewToolsHelp

Group By

Use First Row as Headers

Count Rows

Transpose

Reverse Rows

Detect Data Type

Fill

Pivot Column

Convert to List

Replace Values

Unpivot Columns

Move

Split Column

Format

Merge Columns

Extract

Statistics

Standard Scientific

Trigonometry

Rounding

Information

Date

Time

Duration

Run R script

Run Python script

Queries [2]

LoanDetails

BorrowerDetails

1.2 installment

grade

issue_d

loan_status

purpose

1	10.65	162.87	B	B2	01-12-2018	Fully Paid	Credit Card
2	15.27	59.83	C	C4	01-12-2018	Charged Off	Car
3	15.96	84.33	C	C5	01-12-2018	Fully Paid	Small Business
4	13.49	339.31	C	C1	01-12-2018	Fully Paid	Other
5	12.69	67.79	B	B5	01-12-2018	Current	Other
6	7.9	156.46	A	A4	01-12-2018	Fully Paid	Wedding
7	15.96	170.08	C	C5	01-12-2018	Current	Debt Consolidation
8	18.64	109.43	E	E1	01-12-2018	Fully Paid	Car
9	21.28	152.39	F	F2	01-12-2018	Charged Off	Small Business
10	12.69	121.45	B	B5	01-12-2018	Charged Off	Other
11	14.65	153.45	C	C3	01-12-2018	Fully Paid	Debt Consolidation
12	12.69	402.54	B	B5	01-12-2018	Fully Paid	Debt Consolidation
13	13.49	305.38	C	C1	01-12-2018	Charged Off	Debt Consolidation
14	9.91	96.68	B	B1	01-12-2018	Fully Paid	Credit Card
15	10.65	325.74	B	B2	01-12-2018	Charged Off	Other
16	16.29	35.31	D	D1	01-12-2018	Fully Paid	Debt Consolidation
17	15.27	347.98	C	C4	01-12-2018	Fully Paid	Home Improvement
18	6.03	109.57	A	A1	01-12-2018	Fully Paid	Major Purchase
19	11.71	198.46	B	B3	01-12-2018	Fully Paid	Medical
20	6.03	280.01	A	A1	01-12-2018	Fully Paid	Debt Consolidation
21	15.27	484.63	C	C4	01-12-2018	Fully Paid	Debt Consolidation
22	12.42	701.73	B	B4	01-12-2018	Charged Off	Debt Consolidation
23	11.71	330.76	B	B3	01-12-2018	Fully Paid	Credit Card
24	11.71	330.76	B	B3	01-12-2018	Fully Paid	Debt Consolidation
25	11.71	198.46	B	B3	01-12-2018	Charged Off	Major Purchase
26	9.91	483.38	B	B1	01-12-2018	Fully Paid	Credit Card
27	14.27	514.64	C	C2	01-12-2018	Charged Off	Debt Consolidation
28							

Format

Change casing of text or cleanse text.

Query Settings

PROPERTIES

Name

LoanDetails

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

Replaced Value

Capitalized Each Word

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

Hot weather Now

Search

ENG IN

12:43

07-09-2024

➤ Format the 'home_ownership' column to proper case.

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FileHomeTransformAdd ColumnViewToolsHelp

Close & Apply

New

Recent

Enter

Data source settings

Manage Parameters

Refresh

Advanced Editor

Properties

Manage

Choose Columns

Remove Columns

Keep Rows

Remove Rows

Sort

Split Column

Group By

Replace Values

1

2

Data Type: Text

Use First Row as Headers

1

2

Merge Queries

Append Queries

Combine Files

Combine

Text Analytics

Vision

Azure Machine Learning

AI Insights

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Transform

Combine

AI Insights

Queries [2]

LoanDetails

BorrowerDetails

fx

= Table.TransformColumns(#"Filtered Rows",{{"home_ownership", Text.Proper, type text}})

	member_id	loan_id	emp_length	home_ownership	annual_inc	verification_status	dti
1	1296599	1077501	10+ years	Rent	24000	Verified	
2	1314167	1077430	< 1 year	Rent	30000	Source Verified	
3	1313524	1077175	10+ years	Rent	12252	Not Verified	
4	1277178	1076863	10+ years	Rent	49200	Source Verified	
5	1311748	1075358	1 year	Rent	80000	Source Verified	
6	1311441	1075269	3 years	Rent	36000	Source Verified	
7	1304742	1069639	8 years	Rent	47004	Not Verified	
8	1288686	1072053	9 years	Rent	48000	Source Verified	
9	1306957	1071795	4 years	Own	40000	Source Verified	
10	1306721	1071570	< 1 year	Rent	15000	Verified	
11	1305201	1070078	5 years	Own	72000	Not Verified	
12	1305008	1069908	10+ years	Own	75000	Source Verified	
13	1298717	1064687	< 1 year	Rent	30000	Source Verified	
14	1304956	1069866	3 years	Rent	15000	Source Verified	
15	1303503	1069057	3 years	Rent	100000	Source Verified	
16	1304871	1069759	< 1 year	Rent	28000	Not Verified	
17	1299699	1065775	4 years	Rent	42000	Not Verified	
18	1304884	1069971	10+ years	Mortgage	110000	Not Verified	
19	1294539	1062474	1 year	Mortgage	84000	Verified	
20	1304855	1069742	6 years	Rent	77385.19	Not Verified	
21	1284848	1069740	3 years	Rent	43370	Verified	
22	1269083	1039153	10+ years	Rent	105000	Verified	
23	1304821	1069710	10+ years	Own	50000	Source Verified	
24	1304810	1069700	5 years	Rent	50000	Not Verified	
25	1304634	1069559	1 year	Rent	76000	Not Verified	
26	1273773	1069697	2 years	Mortgage	92000	Verified	
27	1304764	1069657	2 years	Rent	50004	Not Verified	

Query Settings

PROPERTIES

Name

BorrowerDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Replaced Value

Remove rows 1

Filtered Rows1

Remove rows 2

Filtered Rows

Capitalized Each Word

Changed Type1

Renamed Columns

Added Custom

Added Conditional Column

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

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Search

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22:43

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File

Home

Transform

Add Column

View

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Help

Close & Apply

New Source

Recent Sources

Enter Data

Data source settings

Manage Parameters

Refresh Preview

Properties

Advanced Editor

Choose Columns

Remove Columns

Keep Rows

Remove Rows

Sort

Split Column

Group By

Replace Values

Data Type: Fixed decimal number

Use First Row as Headers

Merge Queries

Append Queries

Combine Files

Azure Machine Learning

Text Analytics

Vision

AI Insights

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Sort

Transform

Combine

Queries [2]

LoanDetails

BorrowerDetails

fx

= Table.TransformColumnTypes(#"Capitalized Each Word",{{"total_pymnt", Currency.Type}})

		verification_status	dti	delinq_2yrs	last_pymnt_d	total_pymnt	out_prncp
1	24000	Verified		27.65	0	01-01-2015	5,861.07
2	30000	Source Verified		1	0	01-04-2020	1,008.71
3	12252	Not Verified		8.72	0	01-06-2021	3,003.65
4	49200	Source Verified		20	0	01-01-2015	12,226.30
5	80000	Source Verified		17.94	0	01-01-2016	3,242.17
6	36000	Source Verified		11.2	0	01-01-2015	5,631.38
7	47004	Not Verified		23.51	0	01-01-2016	8,136.84
8	48000	Source Verified		5.35	0	01-01-2015	3,938.14
9	40000	Source Verified		5.55	0	01-04-2019	646.02
10	15000	Verified		18.08	0	01-11-2019	1,476.19
11	72000	Not Verified		16.12	0	01-06-2020	7,677.52
12	75000	Source Verified		10.78	0	01-09-2020	13,943.08
13	30000	Source Verified		10.08	0	01-07-2019	2,270.70
14	15000	Source Verified		12.56	0	01-01-2015	3,478.98
15	100000	Source Verified		7.06	0	01-10-2020	7,471.99
16	28000	Not Verified		20.31	0	01-01-2015	1,270.17
17	42000	Not Verified		18.6	0	01-01-2015	12,519.26
18	110000	Not Verified		10.52	0	01-05-2020	3,785.02
19	84000	Verified		18.44	2	01-02-2015	7,164.50
20	77385.19	Not Verified		9.86	0	01-07-2019	9,459.96
21	43370	Verified		26.53	0	01-08-2015	27,663.04
22	105000	Verified		13.22	0	01-09-2020	14,025.40
23	50000	Source Verified		11.18	0	01-01-2015	11,902.56
24	50000	Not Verified		16.01	0	01-10-2020	11,536.31
25	76000	Not Verified		2.4	0	01-10-2019	2,050.14
26	92000	Verified		29.44	0	01-09-2019	15,823.48
27	50004	Not Verified		13.97	3	01-12-2019	1,609.12
28							

Query Settings

PROPERTIES

Name

BorrowerDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Replaced Value

Remove rows 1

Filtered Rows1

Remove rows 2

Filtered Rows

Capitalized Each Word

Changed Type1

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY 07-09-2024

➤ Round off the numbers in the 'funded_amnt' column to 2 decimal places.

powerpi capstone projects 1

File

Home

Transform

Add Column

View

Tools

Help

Close & Apply

New Source

Recent Sources

Enter Data

Data source settings

Manage Parameters

Refresh Preview

Properties Advanced Editor

Choose Columns

Remove Columns

Keep Rows

Remove Rows

Sort

Split Column

Group By

1 2 Replace Values

Data Type: Decimal Number

Use First Row as Headers

Merge Queries

Append Queries

Combine Files

Text Analytics

Vision

Azure Machine Learning

Close

New Query

Data Sources

Parameters

Query

Manage Columns

Reduce Rows

Transform

Combine

AI Insights

Queries [2]

LoanDetails

BorrowerDetails

id

loan_amt

1.2 funded_amt

term

1.2 int_rate

1.2 installment

grade

1	1077501	5000	4975 36 months		10.65	162.87 B
2	1077430	2500	2500 60 months		15.27	59.83 C
3	1077175	2400	2400 36 months		15.96	84.33 C
4	1076863	10000	10000 36 months		13.49	339.31 C
5	1075358	3000	3000 60 months		12.69	67.79 B
6	1075269	5000	5000 36 months		7.9	156.46 A
7	1069639	7000	7000 60 months		15.96	170.08 C
8	1072053	3000	3000 36 months		18.64	109.43 E
9	1071795	5600	5600 60 months		21.28	152.39 F
10	1071570	5375	5350 60 months		12.69	121.45 B
11	1070078	6500	6500 60 months		14.65	153.45 C
12	1069908	12000	12000 36 months		12.69	402.54 B
13	1064687	9000	9000 36 months		13.49	305.38 C
14	1069866	3000	3000 36 months		9.91	96.68 B
15	1069057	10000	10000 36 months		10.65	325.74 B
16	1069759	1000	1000 36 months		16.29	35.31 D
17	1065775	10000	10000 36 months		15.27	347.98 C
18	1069971	3600	3600 36 months		6.03	109.57 A
19	1062474	6000	6000 36 months		11.71	198.46 B
20	1069742	9200	9200 36 months		6.03	280.01 A
21	1069740	20250	19142.16 60 months		15.27	484.63 C
22	1039153	21000	21000 36 months		12.42	701.73 B
23	1069710	10000	10000 36 months		11.71	330.76 B
24	1069700	10000	10000 36 months		11.71	330.76 B
25	1069559	6000	6000 36 months		11.71	198.46 B
26	1069697	15000	15000 36 months		9.91	483.38 B
27	1069800	15000	8725 36 months		14.27	514.64 C

Query Settings

PROPERTIES

Name

LoanDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

Replaced Value

X

 Rounded Off

Renamed Columns

Removed Columns

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED AT 16:07

➤ Renamethecolumn'issue_d'to'issue_date'.

powerpi capstone projects 1

File

Home

Transform

Add Column

View

Tools

Help

Group By

Use First Row as Headers

Count Rows

Transpose

Reverse Rows

Detect Data Type

Rename

Pivot Column

Pivot Rows

Replace Values

Unpivot Columns

Move

Convert to List

Merge Columns

Split Column

Format Column

Parse

Statistics

Standard

Scientific

Information

Trigonometry

Rounding

Date

Time

Duration

Run R script

Run Python script

Table

Any Column

Text Column

Number Column

Date & Time Column

Scripts

Queries [2]

fx

= Table.RenameColumns("#Rounded Off",{"issue_d", "issue_date"})

LoanDetails

BorrowerDetails

	1.2 installment	grade	sub_grade	issue_date	loan_status	purpose
1	10.65	162.87 B	B2	01-12-2018	Fully Paid	credit card
2	15.27	59.83 C	C4	01-12-2018	Charged Off	car
3	15.96	84.33 C	C5	01-12-2018	Fully Paid	small business
4	13.49	339.31 C	C1	01-12-2018	Fully Paid	other
5	12.69	67.79 B	B5	01-12-2018	Current	other
6	7.9	156.46 A	A4	01-12-2018	Fully Paid	wedding
7	15.96	170.08 C	C5	01-12-2018	Current	debt consolidation
8	18.64	109.43 E	E1	01-12-2018	Fully Paid	car
9	21.28	152.39 F	F2	01-12-2018	Charged Off	small business
10	12.69	121.45 B	B5	01-12-2018	Charged Off	other
11	14.65	153.45 C	C3	01-12-2018	Fully Paid	debt consolidation
12	12.69	402.54 B	B5	01-12-2018	Fully Paid	debt consolidation
13	13.49	305.38 C	C1	01-12-2018	Charged Off	debt consolidation
14	9.91	96.68 B	B1	01-12-2018	Fully Paid	credit card
15	10.65	325.74 B	B2	01-12-2018	Charged Off	other
16	16.29	35.31 D	D1	01-12-2018	Fully Paid	debt consolidation
17	15.27	347.98 C	C4	01-12-2018	Fully Paid	home improvement
18	6.03	109.57 A	A1	01-12-2018	Fully Paid	major purchase
19	11.71	198.46 B	B3	01-12-2018	Fully Paid	medical
20	6.03	280.01 A	A1	01-12-2018	Fully Paid	debt consolidation
21	15.27	484.63 C	C4	01-12-2018	Fully Paid	debt consolidation
22	12.42	701.73 B	B4	01-12-2018	Charged Off	debt consolidation
23	11.71	330.76 B	B3	01-12-2018	Fully Paid	credit card
24	11.71	330.76 B	B3	01-12-2018	Fully Paid	debt consolidation
25	11.71	198.46 B	B3	01-12-2018	Charged Off	major purchase
26	9.91	483.38 B	B1	01-12-2018	Fully Paid	credit card
27	14.27	514.64 C	C2	01-12-2018	Charged Off	debt consolidation

Query Settings

PROPERTIES

Name

LoanDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

Replaced Value

Rounded Off

Renamed Columns

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

USD/GBP

+0.40%

Q Search

ENG IN

13:31

07-09-2024

➤ Renamethecolumn'last_pymnt_d'to'last_pymnt_date'.

powerpi capstone projects 1

FileHomeTransformAdd ColumnViewToolsHelp

Group By

Use First Row as Headers

Count Rows

Transpose

Reverse Rows

Detect Data Type

Rename

Pivot Column

Convert to List

Unpivot Columns

Move

Split Column

Format

Parse

Merge Columns

ABC Extract

Statistics

Standard

Scientific

Information

Trigonometry

Rounding

Date

Time

Duration

Run R script

Run Python script

TableAny ColumnText ColumnNumber ColumnDate & Time ColumnScripts

Queries [2]

LoanDetails

BorrowerDetails

verification_status

1.2 dth

delinq_2yrs

last_pymnt_date

total_pymnt

1.2 out_prncp

1	24000	Verified	27.65	0	01-01-2015	5,861.07
2	30000	Source Verified	1	0	01-04-2020	1,008.71
3	12252	Not Verified	8.72	0	01-06-2021	3,003.65
4	49200	Source Verified	20	0	01-01-2015	12,226.30
5	80000	Source Verified	17.94	0	01-01-2016	3,242.17
6	36000	Source Verified	11.2	0	01-01-2015	5,631.38
7	47004	Not Verified	23.51	0	01-01-2016	8,136.84
8	48000	Source Verified	5.35	0	01-01-2015	3,938.14
9	40000	Source Verified	5.55	0	01-04-2019	646.02
10	15000	Verified	18.08	0	01-11-2019	1,476.19
11	72000	Not Verified	16.12	0	01-06-2020	7,677.52
12	75000	Source Verified	10.78	0	01-09-2020	13,943.08
13	30000	Source Verified	10.08	0	01-07-2019	2,270.70
14	15000	Source Verified	12.56	0	01-01-2015	3,478.98
15	100000	Source Verified	7.06	0	01-10-2020	7,471.99
16	28000	Not Verified	20.31	0	01-01-2015	1,270.17
17	42000	Not Verified	18.6	0	01-01-2015	12,519.26
18	110000	Not Verified	10.52	0	01-05-2020	3,785.02
19	84000	Verified	18.44	2	01-02-2015	7,164.50
20	77385.19	Not Verified	9.86	0	01-07-2019	9,459.96
21	43370	Verified	26.53	0	01-08-2015	27,663.04
22	105000	Verified	13.22	0	01-09-2020	14,025.40
23	50000	Source Verified	11.18	0	01-01-2015	11,902.56
24	50000	Not Verified	16.01	0	01-10-2020	11,536.31
25	76000	Not Verified	2.4	0	01-10-2019	2,050.14
26	92000	Verified	29.44	0	01-09-2019	15,823.48
27	50004	Not Verified	13.97	3	01-12-2019	1,609.12

Query Settings

PROPERTIES

Name

BorrowerDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Replaced Value

Remove rows 1

Filtered Rows1

Remove rows 2

Filtered Rows

Capitalized Each Word

Changed Type1

Renamed Columns

11 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

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Hot weather

Now

Search

ENG IN

13:33

07-09-2024

➤ Create a new custom column named 'total_amount_paid' to calculate the total amount paid by each borrower by subtracting 'out_prncp' from 'total_pymnt'.

powerpi capstone projects 1

FileHomeTransformAdd ColumnViewToolsHelp

Column From Custom Invoke Custom ExamplesColumnFunctionDuplicate Column

Conditional ColumnIndex Column

Merge ColumnsABC ExtractFormatParse

Statistics Standard ScientificInformation

TrigonometryRounding

DateTimeDurationFrom Date & Time

TextVision Azure Machine Learning

GeneralFrom TextFrom NumberFrom Date & TimeAI Insights

Queries [2]LoanDetailsBorrowerDetails

= Table.AddColumn(#"Renamed Columns", "total_amount_paid", each [out_prncp]-[total_pymnt])

ius	1.2 dti	1.3 delinq_2yrs	last_pymnt_date	\$ total_pymnt	1.2 out_prncp	1.2 total_amount_paid	
1		27.65	0	01-01-2015	5,861.07	0	-5861.0714
2		1	0	01-04-2020	1,008.71	0	-1008.71
3		8.72	0	01-06-2021	3,003.65	0	-3003.6536
4		20	0	01-01-2015	12,226.30	0	-12226.3022
5		17.94	0	01-01-2016	3,242.17	766.9	-2475.27
6		11.2	0	01-01-2015	5,631.38	0	-5631.3778
7		23.51	0	01-01-2016	8,136.84	1888.15	-6247.69
8		5.35	0	01-01-2015	3,938.14	0	-3938.1443
9		5.55	0	01-04-2019	646.02	0	-646.02
10		18.08	0	01-11-2019	1,476.19	0	-1476.19
11		16.12	0	01-06-2020	7,677.52	0	-7677.52
12		10.78	0	01-09-2020	13,943.08	0	-13943.08
13		10.08	0	01-07-2019	2,270.70	0	-2270.7
14		12.56	0	01-01-2015	3,478.98	0	-3478.9819
15		7.06	0	01-10-2020	7,471.99	0	-7471.99
16		20.31	0	01-01-2015	1,270.17	0	-1270.1711
17		18.6	0	01-01-2015	12,519.26	0	-12519.2604
18		10.52	0	01-05-2020	3,785.02	0	-3785.02
19		18.44	2	01-02-2015	7,164.50	0	-7164.4999
20		9.86	0	01-07-2019	9,459.96	0	-9459.96
21		26.53	0	01-08-2015	27,663.04	0	-27663.0427
22		13.22	0	01-09-2020	14,025.40	0	-14025.4
23		11.18	0	01-01-2015	11,902.56	0	-11902.5616
24		16.01	0	01-10-2020	11,536.31	0	-11536.31
25		2.4	0	01-10-2019	2,050.14	0	-2050.14
26		29.44	0	01-09-2019	15,823.48	0	-15823.48
27		13.97	3	01-12-2019	1,609.12	0	-1609.12

Query Settings

PROPERTIESNameBorrowerDetailsAll Properties

APPLIED STEPSSourceNavigationPromoted HeadersChanged TypeReplaced ValueRemove rows 1Filtered Rows1Remove rows 2Filtered RowsCapitalized Each WordChanged Type1Renamed ColumnsAdded Custom

12 COLUMNS, 999+ ROWS Column profiling based on top 1000 rowsPREVIEW DOWNLOADED ON FRIDAY

95°F Mostly cloudy

Search

ENG IN13:5807-09-2024

powerpi capstone projects

FileHomeTransformAdd ColumnViewToolsHelp

Column From Custom Examples

Invoiced Column

Custom Function

Conditional Column

Index Column

Duplicate Column

From General

From Text

From Number

From Date & Time

All Insights

Merge Columns

Extract

Parse

Statistics

Standard

Scientific

Information

Trigonometry

Rounding

Information

Date

Time

Duration

Text Analytics

Vision

Azure Machine Learning

Queries [2]

X✓fx

= Table.AddColumn("#Added Custom", "delinquency_status", each if [delinq_2yrs] > 0 then "Delinquent" else "Not Delinquent")

LoanDetails

BorrowerDetails

	delinq_2yrs	last_pymnt_date	\$ total pymnt	1.2 out_prncp	ABC 123 total_amount_paid	ABC 123 delinquency_status
1	27.65	0	01-01-2015	5,861.07	0	-5861.0714 Not Delinquent
2	1	0	01-04-2020	1,008.71	0	-1008.71 Not Delinquent
3	8.72	0	01-06-2021	3,003.65	0	-3003.6536 Not Delinquent
4	20	0	01-01-2015	12,226.30	0	-12226.3022 Not Delinquent
5	17.94	0	01-01-2016	3,242.17	766.9	-2475.27 Not Delinquent
6	11.2	0	01-01-2015	5,631.38	0	-5631.3778 Not Delinquent
7	23.51	0	01-01-2016	8,136.84	1889.15	-6247.69 Not Delinquent
8	5.35	0	01-01-2015	3,938.14	0	-3938.1443 Not Delinquent
9	5.55	0	01-04-2019	646.02	0	-646.02 Not Delinquent
10	18.08	0	01-11-2019	1,476.19	0	-1476.19 Not Delinquent
11	16.12	0	01-06-2020	7,677.52	0	-7677.52 Not Delinquent
12	10.78	0	01-09-2020	13,943.08	0	-13943.08 Not Delinquent
13	10.08	0	01-07-2019	2,270.70	0	-2270.7 Not Delinquent
14	12.56	0	01-01-2015	3,478.98	0	-3478.9019 Not Delinquent
15	7.06	0	01-10-2020	7,471.99	0	-7471.99 Not Delinquent
16	20.31	0	01-01-2015	1,270.17	0	-1270.1711 Not Delinquent
17	18.6	0	01-01-2015	12,519.26	0	-12519.2604 Not Delinquent
18	10.52	0	01-05-2020	3,785.02	0	-3785.02 Not Delinquent
19	18.44	2	01-02-2015	7,164.50	0	-7164.4999 Delinquent
20	9.86	0	01-07-2019	9,459.96	0	-9459.96 Not Delinquent
21	26.53	0	01-08-2015	27,663.04	0	-27663.0427 Not Delinquent
22	13.22	0	01-09-2020	14,025.40	0	-14025.4 Not Delinquent
23	11.18	0	01-01-2015	11,902.56	0	-11902.5616 Not Delinquent
24	16.01	0	01-10-2020	11,536.31	0	-11536.31 Not Delinquent
25	2.4	0	01-10-2019	2,050.14	0	-2050.14 Not Delinquent
26	29.44	0	01-09-2019	15,823.48	0	-15823.48 Not Delinquent
27	13.97	3	01-12-2019	1,609.12	0	-1609.12 Delinquent
28	<					>

Query Settings

PROPERTIES

NameBorrowerDetails

All Properties

APPLIED STEPS

SourceNavigationPromoted HeadersChanged TypeReplaced ValueRemove rows 1Filtered Rows 1Remove rows 2Filtered RowsCapitalized Each WordChanged Type1Renamed ColumnsAdded CustomX Added Conditional Column

13 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

95°FMostly cloudy

Search

ENG IN14:1407-09-2024

➤ Remove the 'sub_grade' column that does not significantly contribute to the analysis.

powerpi capstone projects 1

FileHomeTransformAdd ColumnViewToolsHelp

Column From Custom Examples *ColumnInvoke Custom FunctionDuplicate Column

Conditional ColumnIndex Column

From TextMerge ColumnsABC Extract *Format *Parse *

From NumberStatisticsStandard Scientific *Rounding *Trigonometry *

From Date & TimeDateTimeDuration

AI InsightsText AnalyticsVisionAzure Machine Learning

Queries [2]

fx

= Table.RemoveColumns(#"Renamed Columns",{"sub_grade"})

LoanDetails

BorrowerDetails

	12_int_rate	12_installment	12_grade	issue_date	loan_status	purpose
1		10.65	162.87 B	01-12-2018	Fully Paid	credit card
2		15.27	59.83 C	01-12-2018	Charged Off	car
3		15.96	84.33 C	01-12-2018	Fully Paid	small business
4		13.49	339.31 C	01-12-2018	Fully Paid	other
5		12.69	67.79 B	01-12-2018	Current	other
6		7.9	156.46 A	01-12-2018	Fully Paid	wedding
7		15.96	170.08 C	01-12-2018	Current	debt consolidation
8		18.64	109.43 E	01-12-2018	Fully Paid	car
9		21.28	152.39 F	01-12-2018	Charged Off	small business
10		12.69	121.45 B	01-12-2018	Charged Off	other
11		14.65	153.45 C	01-12-2018	Fully Paid	debt consolidation
12		12.69	402.54 B	01-12-2018	Fully Paid	debt consolidation
13		13.49	305.38 C	01-12-2018	Charged Off	debt consolidation
14		9.91	96.68 B	01-12-2018	Fully Paid	credit card
15		10.65	325.74 B	01-12-2018	Charged Off	other
16		16.29	35.31 D	01-12-2018	Fully Paid	debt consolidation
17		15.27	347.98 C	01-12-2018	Fully Paid	home improvement
18		6.03	109.57 A	01-12-2018	Fully Paid	major purchase
19		11.71	198.46 B	01-12-2018	Fully Paid	medical
20		6.03	280.01 A	01-12-2018	Fully Paid	debt consolidation
21		15.27	484.63 C	01-12-2018	Fully Paid	debt consolidation
22		12.42	701.73 B	01-12-2018	Charged Off	debt consolidation
23		11.71	330.76 B	01-12-2018	Fully Paid	credit card
24		11.71	330.76 B	01-12-2018	Fully Paid	debt consolidation
25		11.71	198.46 B	01-12-2018	Charged Off	major purchase
26		9.91	483.38 B	01-12-2018	Fully Paid	credit card
27		14.27	514.64 C	01-12-2018	Charged Off	debt consolidation
28						

Query Settings

PROPERTIES

NameLoanDetails

All Properties

APPLIED STEPS

Source

Navigation

Promoted Headers

Changed Type

Removed Duplicates

Filtered Rows

Replaced Value

Rounded Off

Renamed Columns

Removed Columns

10 COLUMNS, 999+ ROWS

Column profiling based on top 1000 rows

PREVIEW DOWNLOADED ON FRIDAY

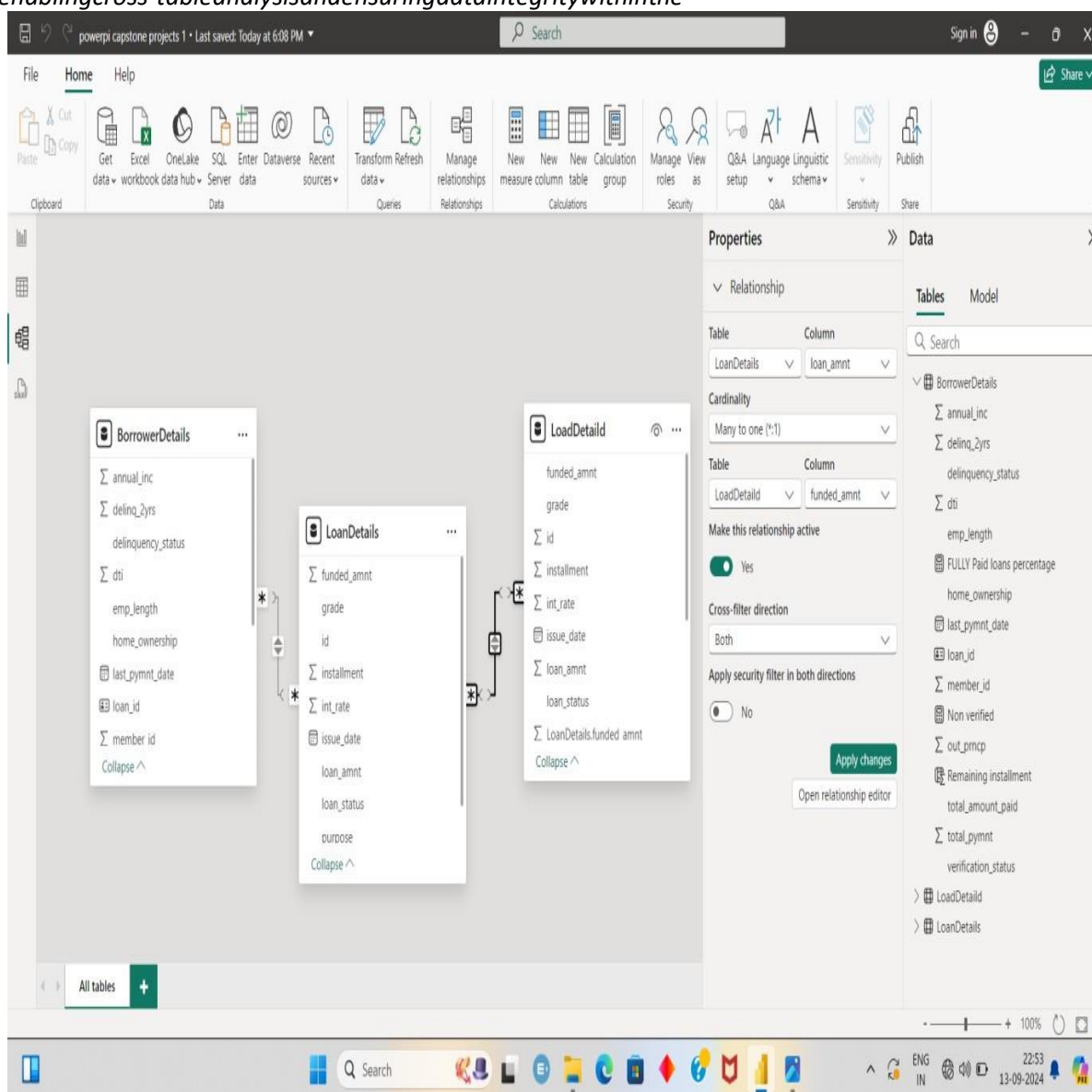
95°F Mostly cloudy

Search

ENG IN

14:25 07-09-2024

is crucial for enabling cross-table analysis and ensuring data integrity within the



➤ Create a new calculated column named 'remaining_installments' using DAX in the

"BorrowerDetails" table to calculate the number of remaining installments by

dividing the remaining principal amount ('out_prncp') by the monthly installment

amount ('installment') and round up the result using the CEILING() function to

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Get dataExcelOneLakeSQLEnter DataverseRecent sourcesTransform Refresh dataManage relationshipsNew Quick New New Manage View Sensitivity Publish

ClipboardDataQueriesRelationshipsCalculationsSecuritySensitivityShare

1 Remaining installment = CALCULATE(COUNT(BorrowerDetails[delinquency_status]))

home_ownership	annual_inc	verification_status	dti	delinq_2yrs	last_pymnt_date	total_pymnt	out_prncp	total_amount_paid	delinquency_status	Remaining installment
Mortgage	70000	Verified	6.21	0	01 November 2020	23996.94	0	-23996.94	Not Delinquent	1
Mortgage	70000	Verified	21.5	0	01 June 2021	22756.2027	0	-22756.2027	Not Delinquent	1
Mortgage	70000	Verified	18.45	0	01 February 2015	20596.97	0	-20596.97	Not Delinquent	1
Mortgage	70000	Verified	21.45	0	01 June 2020	16632.6	0	-16632.6	Not Delinquent	1
Mortgage	70000	Verified	14.61	0	01 June 2021	21630.52	0	-21630.52	Not Delinquent	1
Mortgage	70000	Verified	23.34	0	01 January 2019	4587.44	0	-4587.44	Not Delinquent	1
Mortgage	70000	Verified	6.15	0	01 March 2019	8314.15	0	-8314.15	Not Delinquent	1
Mortgage	70000	Verified	11.71	0	01 June 2021	13303.6626	0	-13303.6626	Not Delinquent	1
Mortgage	70000	Verified	19.66	0	01 May 2019	15848.53	0	-15848.53	Not Delinquent	1
Mortgage	70000	Verified	12.33	0	01 October 2018	20191.73	0	-20191.73	Not Delinquent	1
Mortgage	70000	Verified	8.73	0	01 January 2020	7471.48	0	-7471.48	Not Delinquent	1
Mortgage	70000	Verified	21.62	0	01 July 2021	21624.7793	0	-21624.7793	Not Delinquent	1
Mortgage	70000	Verified	12.57	0	01 February 2021	41662.89	0	-41662.89	Not Delinquent	1
Mortgage	70000	Verified	14.14	0	01 February 2021	11630.13	0	-11630.13	Not Delinquent	1
Mortgage	70000	Verified	6.84	0	01 January 2020	6815.21	0	-6815.21	Not Delinquent	1
Mortgage	70000	Verified	8.88	0	01 August 2019	10436.19	0	-10436.19	Not Delinquent	1
Mortgage	70000	Verified	8.31	0	01 July 2018	219.11	0	-219.11	Not Delinquent	1
Mortgage	70000	Verified	16.63	0	01 June 2021	7609.7545	0	-7609.7545	Not Delinquent	1
Mortgage	70000	Verified	13.78	0	01 August 2020	22944.69	0	-22944.69	Not Delinquent	1
Mortgage	70000	Verified	12.65	0	01 February 2020	27552.36	0	-27552.36	Not Delinquent	1
Mortgage	70000	Verified	16.13	0	01 February 2019	8731.4	0	-8731.4	Not Delinquent	1
Mortgage	70000	Verified	20.31	0	01 November 2021	35494.4771	0	-35494.4771	Not Delinquent	1
Mortgage	70000	Verified	19.8	0	01 February 2021	4441.12	0	-4441.12	Not Delinquent	1
Mortgage	70000	Verified	7.32	0	01 May 2019	6797.16	0	-6797.16	Not Delinquent	1
Mortgage	70000	Verified	11.79	0	01 May 2020	17940.85	0	-17940.85	Not Delinquent	1
Mortgage	70000	Verified	12.82	0	01 January 2021	1103.65	0	-1103.65	Not Delinquent	1
Mortgage	70000	Verified	16.61	0	01 January 2021	28875.76	0	-28875.76	Not Delinquent	1

Table: BorrowerDetails (4,65,909 rows) Column: Remaining installment (2 distinct values)

Search

BorrowerDetails

Σ annual_inc

Σ delinq_2yrs

delinquency_status

Σ dti

emp_length

FULLY Paid loans percentage

home_ownership

> last_pymnt_date

loan_id

Σ member_id

Non verified

Σ out_prncp

Remaining installment

total_amount_paid

Σ total_pymnt

verification_status

> LoadDetaild

> LoanDetails

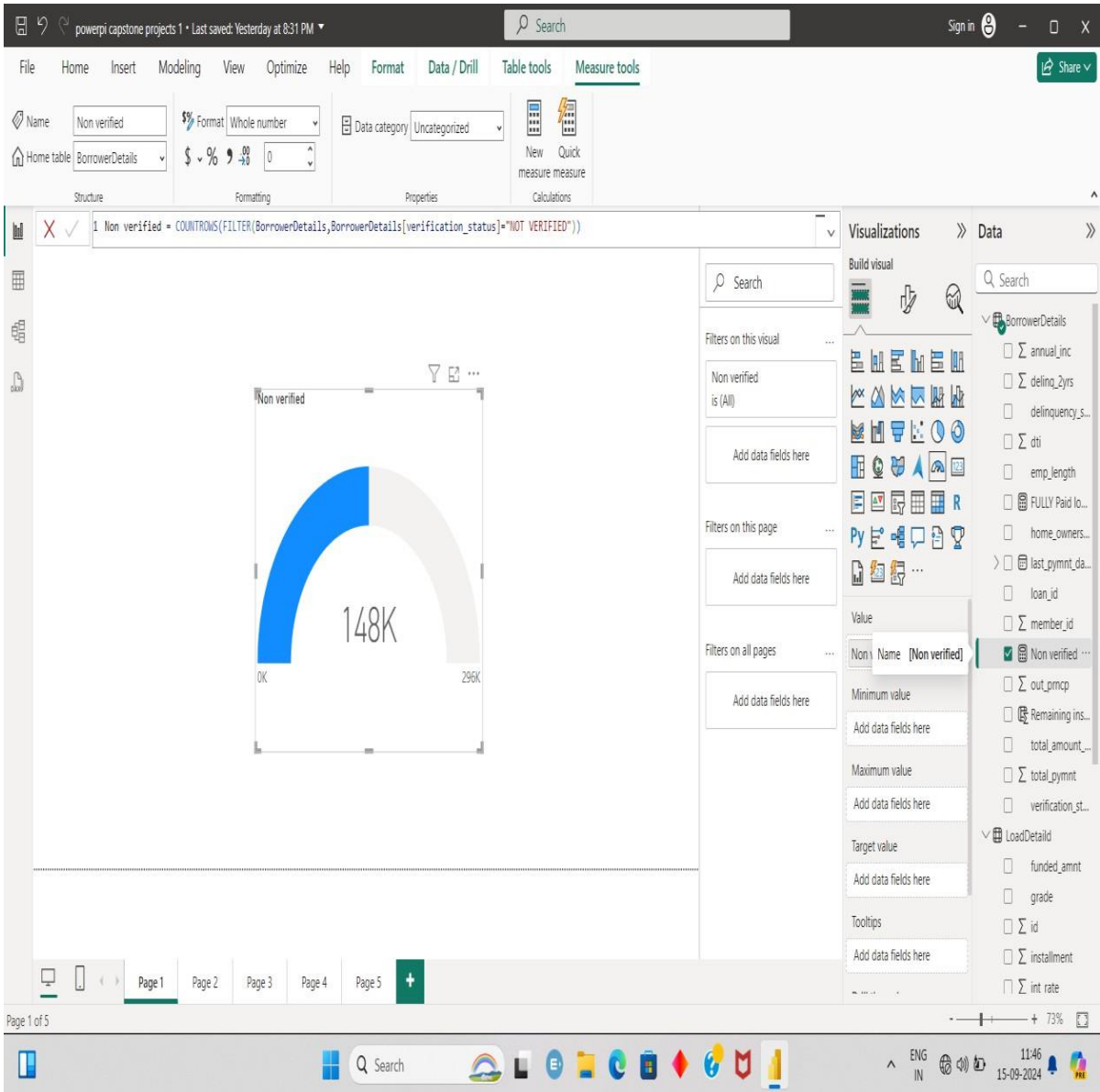
Search

ENG IN

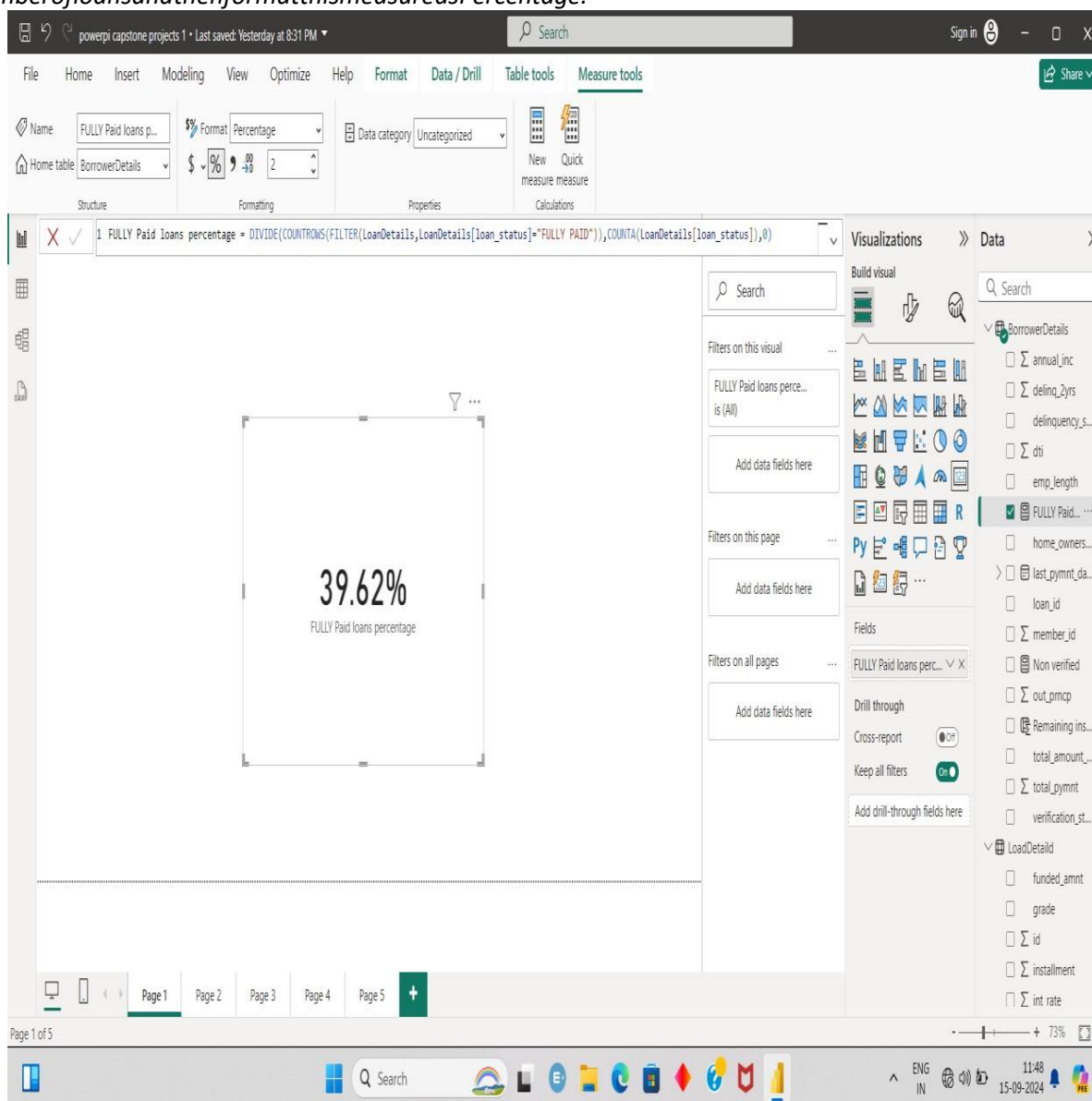
22:55

13-09-2024

➤ Create a measure named 'Non-VerifiedBorrowersCount' using DAX to count the number of loans that have been 'Not Verified'.



➤ Create a measure named 'Fully Paid Loan Percentage' to calculate the percentage of fully paid loans. Divide the number of loans with a "Fully Paid" loan status by the total number of loans and then format this measure as Percentage.

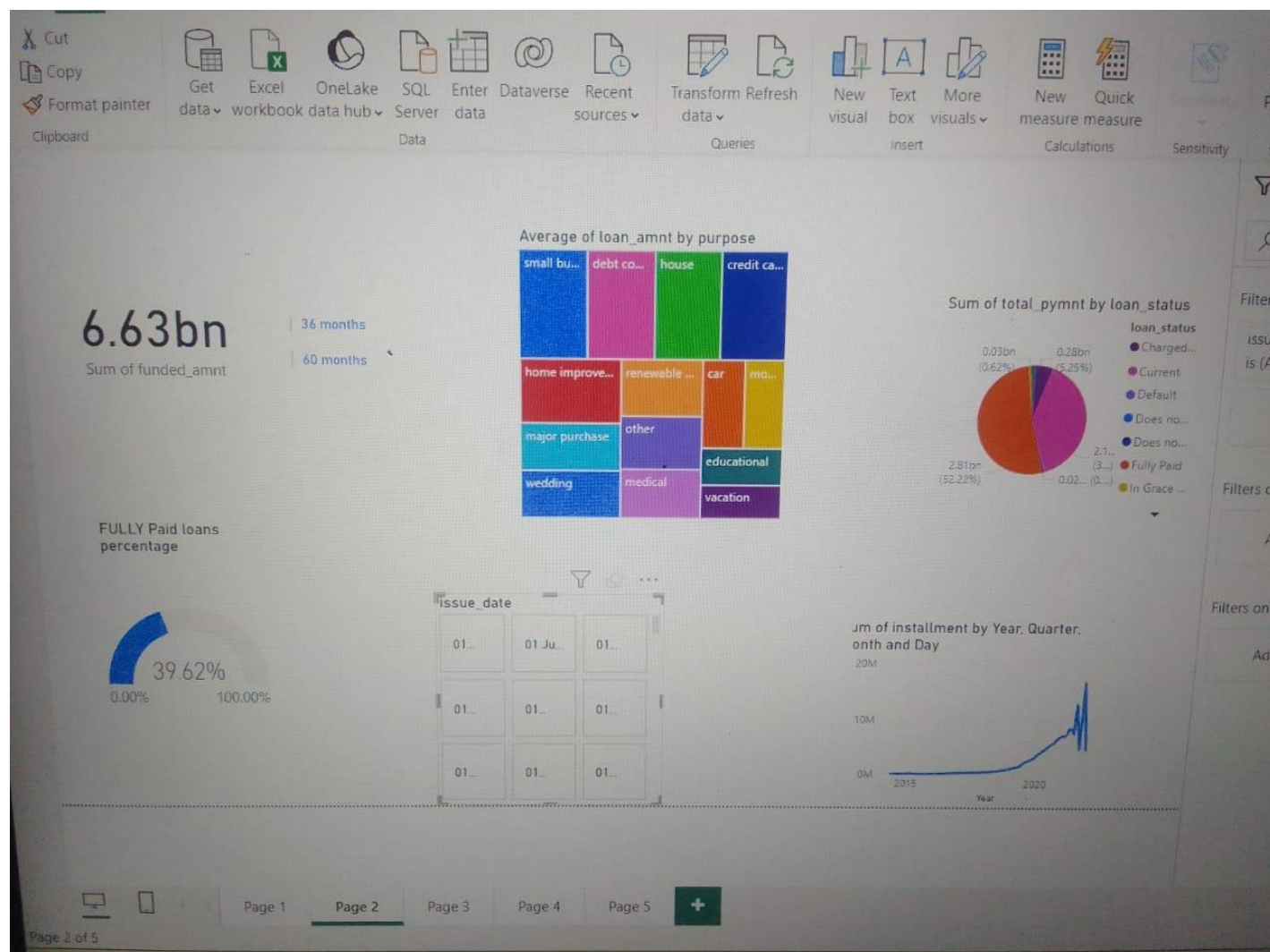


Report1:LoanPerformanceAnalysis

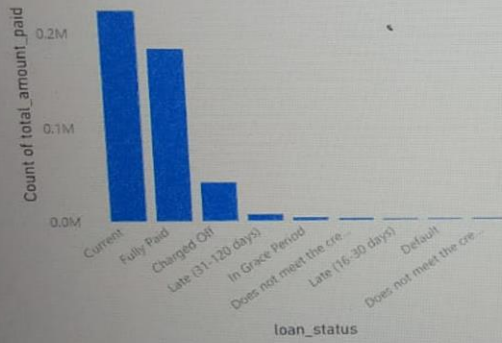
The Loan Performance Analysis report aims to provide insights into the performance of loans based on various factors such as loan amount, loan status, term, interest rate, and purpose.

- TotalFundedAmount: Create a card visual to display the total funded amount.
- FullyPaidLoanPercentage: Create a gauge chart to display the 'Fully Paid Loan Percentage' measure.
- AverageInterestRatebyTerm: Create a multi-row card to show the average interest rate for each term.
- LoanStatusDistribution: Create a pie chart to visualize the sum of total payments by loan status.
- LoanAmountbyPurpose: Create a treemap to show the average loan amount by purpose.
- InstallmentOverTime: Create a line chart to visualize the sum of installments by Year and Quarter of the issue date.
- MaximumTotalAmountPaidbyLoanStatus: Create a column chart to display the maximum total amount paid by loan status.
- MinimumAnnualIncomebyGrade: Create a funnel chart to show the minimum annual income by grade.
- IssueDateSlicer: Add a slicer for the Month of the issue date to enable dynamic data exploration.

The Loan Performance Analysis report aims to provide insights into the performance of loans based on various factors such as loan amount, loan status, term, interest rate, and purpose.



Count of total_amount_paid by loan_status



Sum of annual_inc by grade



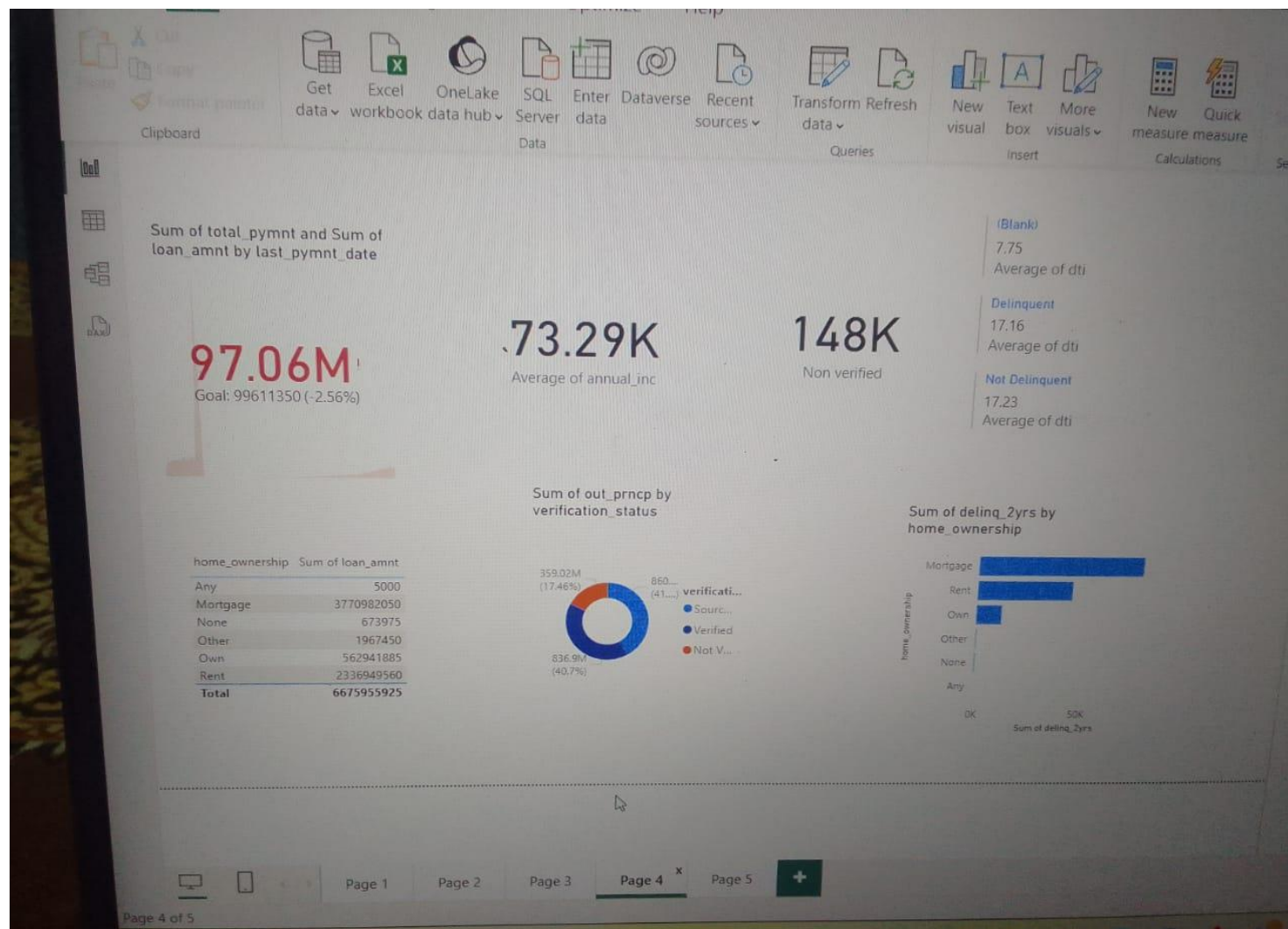
Report2:BorrowerProfileAnalysis

TheBorrowerProfileAnalysisreportaimstoprovideinsightsintothecharacteristicsof borrowers such as home ownership, annual income, employment length, verification status, debt-to-income ratio, and delinquency history.

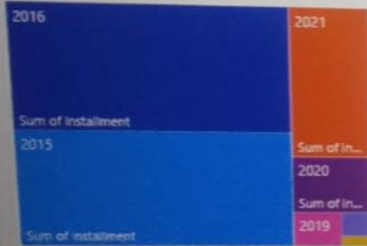
- KPIVisual:CreateaKPIvisualwiththesumoftotalpaymentasthevalue,the year of last payment date as the trend axis, and the sum of loan amount as the target. Round off to 2 decimal points and format as \$ currency.
- AverageofAnnualIncome:Displaytheaverageofannualincomeusingacard visual.
- Non-VerifiedBorrowersCount:Displaythecountofnon-verifiedborrowersusing a card visual.
- AverageDebt-to-IncomebyDelinquencyStatus:Createamulti-rowcardtoshow the average debt-to-income ratio by delinquency status.
- SumofLoanAmountbyHomeOwnership:Createatabletoshowthetotalloan amount by home ownership.
- AverageRemainingPrincipalbyVerificationStatus:Createadonutchartto display the average remaining outstanding principal by verification status.
- SumofDelinquenciesbyHomeOwnership:Createabarcharttoshowthetotal number of delinquencies in the past 2 years by home ownership and filter the visual to display only Mortgage, Rent, and Own.
- MaxRemainingInstallmentsbyEmploymentLength:Createatreemaptoshow the maximum remaining installments by employment length.
- TotalAmountPaidandFundedAmountOverTime:Createalinecharttodisplay the sum of total amount paid and the sum of funded amount by the year of last payment date.
- PurposeSlicer:Addaslicerforloanpurposetoenabledynamicdataexploration.

Report2:BorrowerProfileAnalysis

TheBorrowerProfileAnalysisreportaimstoprovideinsightsintothecharacteristicsof borrowers such as home ownership, annual income, employment length, verification status, debt-to-income ratio, and delinquency history.



Sum of installment and Sum of Remaining installment by Year



Sum of funded_amnt by Year and total_amount_paid



purpose

