Outline

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Business **Objective**:

1 Mengidentifikasi faktor apa saja yang menjadi penyebab customer terlambat membayar tunggakan credit

2 Visualisasi kondisi customer yang memiliki pembayaran kredit tertunda

3 Menentukan factor yang paling banyak menjadi penyebab customer menunggak

Data Explorasi: **1. Menggabungkan data**

SQL Code

```
SELECT a.customer_age,
a.dependent_count,
a.gender,
a.income_category,a.months_on_book,
a.total_relationship_count,a.months_inactive_12_mon,a.credit_limit,a.total_revolving_bal,a.total_trans_amt
,a.avg_open_to_buy,a.total_trans_ct,a.avg_utilization_ratio,
b.status , c.card_category, d.Education_Level, e.Marital_Status FROM
customer_data_history AS a
LEFT JOIN status_db AS b on a.idstatus = b.id
LEFT JOIN category_db AS c on a.card_categoryid = c.id
LEFT JOIN  education_db AS d on a.educationid = d.id
LEFT JOIN marital_db AS e on a.maritalid - e.id
```

Preview result

CLIENTNU	idstatus	Customer	Gender	Dependen	Education	Maritalid	Income_C	card_cate	Months_o	Total_Rela	Months_I	Contacts_	Credit_Lim	Total_Rev
7.69E+08	1	45	M	3	1	1	$60K - $80	1	39	5	1	3	12691	777
8.19E+08	1	49	F	5	2	2	Less than	1	44	6	1	2	8256	864
7.14E+08	1	51	M	3	2	1	$80K - $12	1	36	4	1	0	3418	0
7.7E+08	1	40	F	4	1	3	Less than	1	34	3	4	1	3313	2517
7.09E+08	1	40	M	3	3	1	$60K - $80	1	21	5	1	0	4716	0
7.13E+08	1	44	M	2	2	1	$40K - $60	1	36	3	1	2	4010	1247
8.1E+08	1	51	M	4	4	1	$120K +	2	46	6	1	3	34516	2264

Data Explorasi:

2. How many people will be attired by gender

SQL Code

SELECT status, customer_age,
COUNT (case when gender = 'M' then gender end) AS male
 FROM
all_data
WHERE lower(status) = 'attrited customer'
GROUP by 1,2
ORDER by male desc
LIMIT 10

SQL Code

SELECT status, customer_age,
COUNT (case when gender = 'F' then gender end) AS male
 from
all_data
GROUP by 1,2
ORDER by male desc
LIMIT 10

Preview result male customer with their age

Status	Age	Total
Attrited Customer	43	120
Attrited Customer	48	111
Attrited Customer	45	108
Attrited Customer	49	108
Attrited Customer	40	105
Attrited Customer	50	102
Attrited Customer	46	99
Attrited Customer	41	96
Attrited Customer	47	93
Attrited Customer	52	93

Preview result female customer with their age

Status	Age	Total
Attrited Customer	44	168
Attrited Customer	46	147
Attrited Customer	48	144
Attrited Customer	54	138
Attrited Customer	43	135
Attrited Customer	47	135
Attrited Customer	41	132
Attrited Customer	45	129
Attrited Customer	49	129
Attrited Customer	51	120

Data Explorasi: 3. From income perspective

SQL Code

```
SELECT income_category, COUNT(income_category)
total_customer from
all_data
WHERE lower(status) = 'attrited customer'
GROUP by 1
ORDER by total_customer desc
LIMIT 10
```
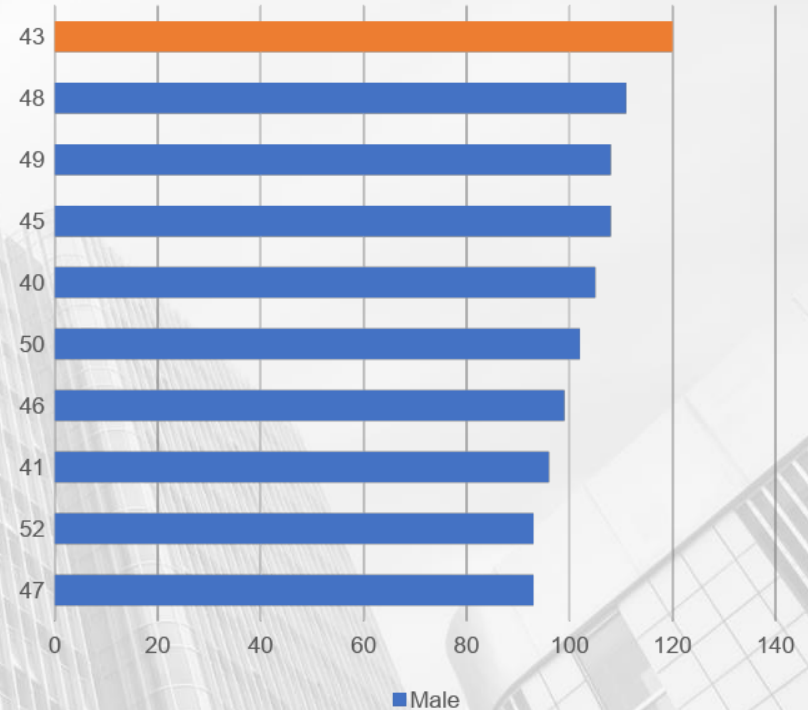
Preview result

Income Category	Total Customer
Less than $40K	1836
$40K - $60K	813
$80K - $120K	726
$60K - $80K	567
Unknown	561
$120K +	378

Insight Visualization

43%

Dari customer yang akan memilih berhenti merupakan laki laki, dan **5% diantaranya** didominasi oleh pria dengan umur 43 tahun
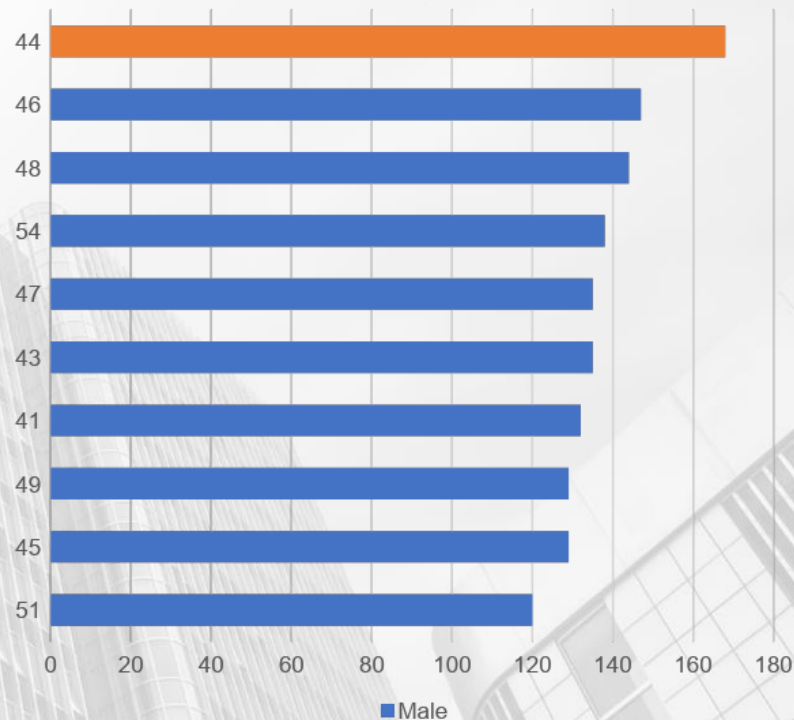
Insight Visualization

57%

Dari customer yang akan memilih berhenti merupakan perempuan dan **6% diantaranya** didominasi oleh wanita dengan umur 44 tahun.
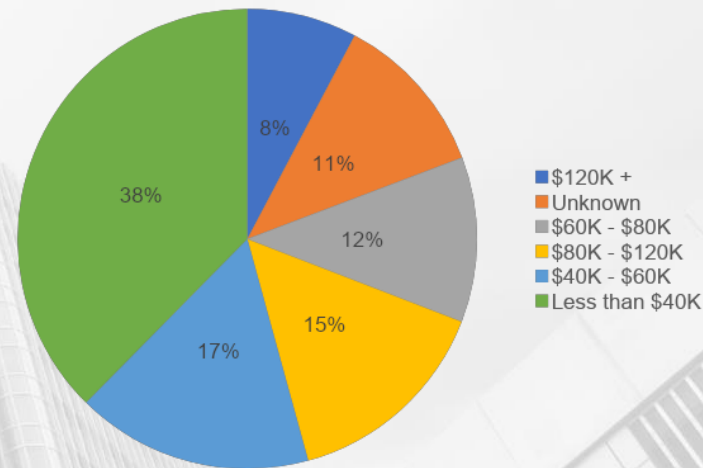

Age	Male
44	
46	
48	
54	
47	
43	
41	
49	
45	
51	

Insight Visualization

total customer

37%

Customer yang akan berhenti di dominasi oleh customer dengan pendapatan kurang dari **$40 dollar**

Pie chart legend:
- $120K +
- Unknown
- $60K - $80K
- $80K - $120K
- $40K - $60K
- Less than $40K

Pie chart values: 8%, 11%, 12%, 15%, 17%, 38%

Kesimpulan dan Solusi

1. **Pendapatan perbulan, dan usia** merupakan salah satu faktor yang menentukan bahwa customer akan lanjut untuk melakukan pinjaman atau tidak

2. Dengan temuan di atas kita bisa melakukan **auto screening**, dengan kondisi saat customer yang mendaftar memiliki income kurang dari $40 dan pada usia 44-57 tahun maka, **kita bisa memasukan kedalam profil kustomer berpotensi kuat gagal bayar**