

Bank Customer Segmentation in Germany

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Motivation

Understand customer behaviors, preferences, and needs

Tailor services, products, and analyze profitability and risk.

Identify high-value customers who generate substantial revenue.

Allocate resources more efficiently, and understand risk profiles.

Enhance customer satisfaction, fosters long-term loyalty, boost profitability while minimizing risks.



Dataset and Methodology

Dataset contains 20000 entries with 22 columns. Each represent a person who takes a credit by a bank.

No null values and na values were found.

No removing duplicate was performed.

Dataset was obtained from Kaggle.

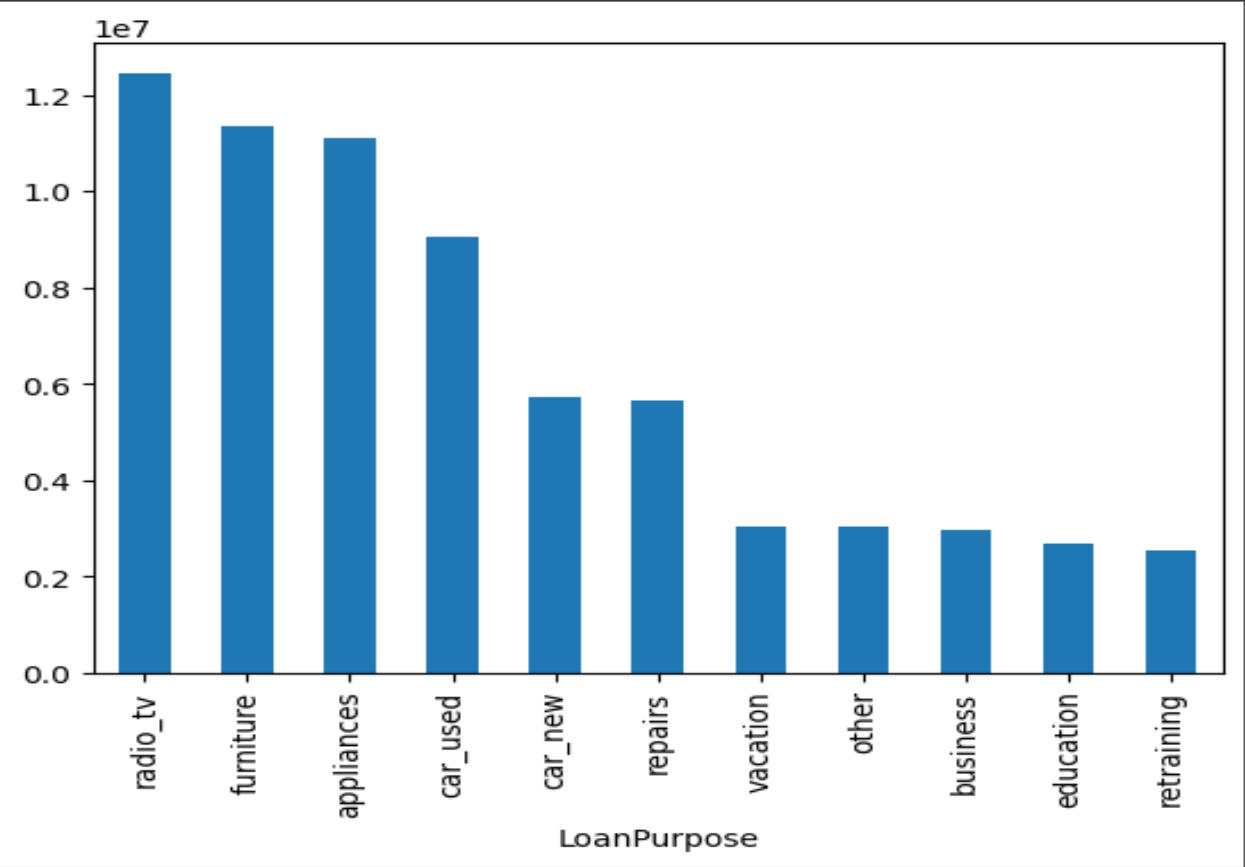
Among the most interesting columns found in the data set:

LoanDuration, LoanPurpose, CreditHistory, LoanAmount, ExistingSavings, Sex, OwnsProperty, Age, Job, Risk



Loan Purpose % Distribution

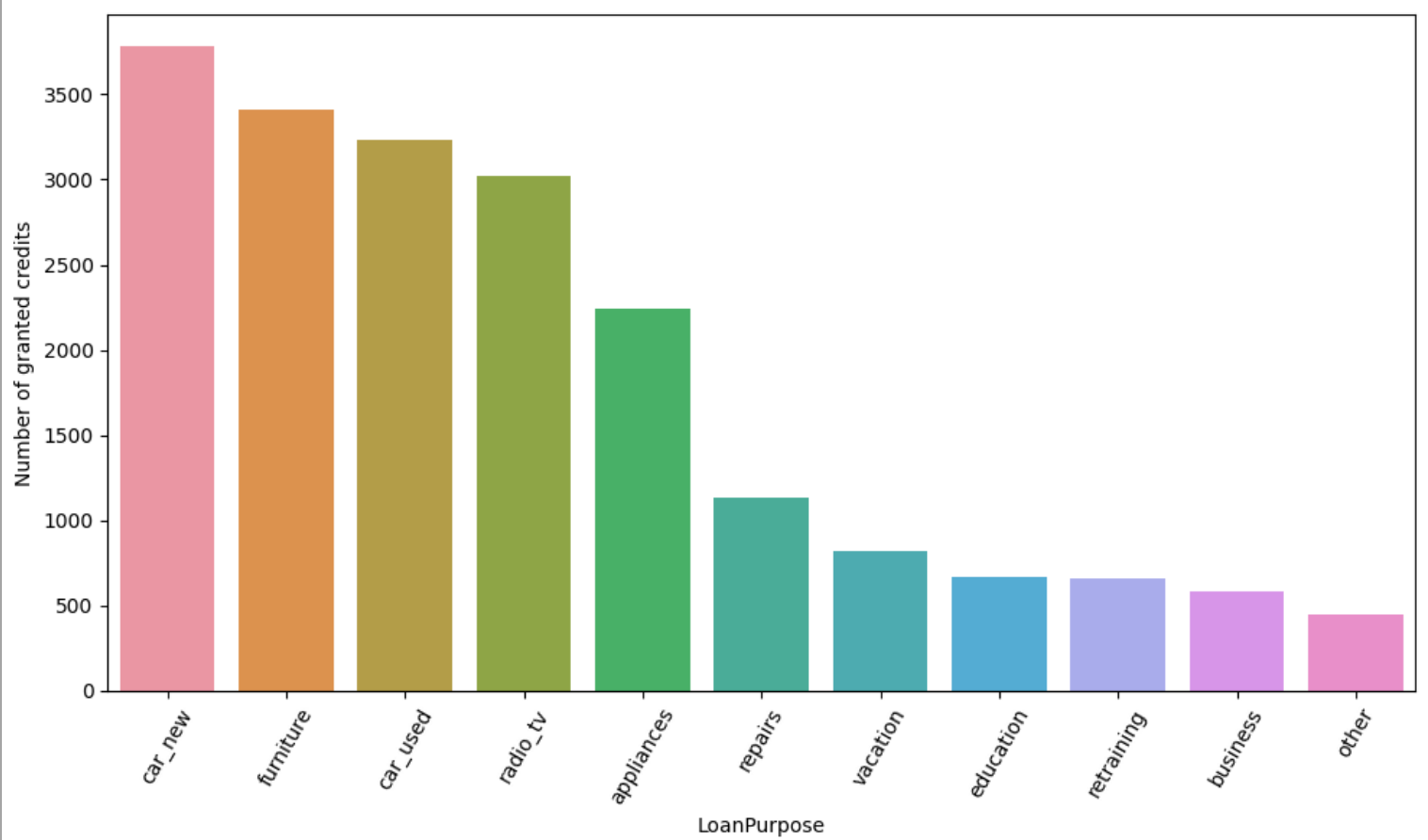
From a total of EUR 69,602,900 in credit allocation, the % distribution of loan amount:



	Euros	Percentage
LoanPurpose		
radio_tv	12443888	17.878404
furniture	11363640	16.326389
appliances	11110236	15.962318
car_used	9054072	13.008182
car_new	5721712	8.220508
repairs	5666648	8.141396
vacation	3026716	4.348549
other	3023488	4.343911
business	2959984	4.252673
education	2691088	3.866345
retraining	2541428	3.651325

Number of Granted Credits per Loan Purpose

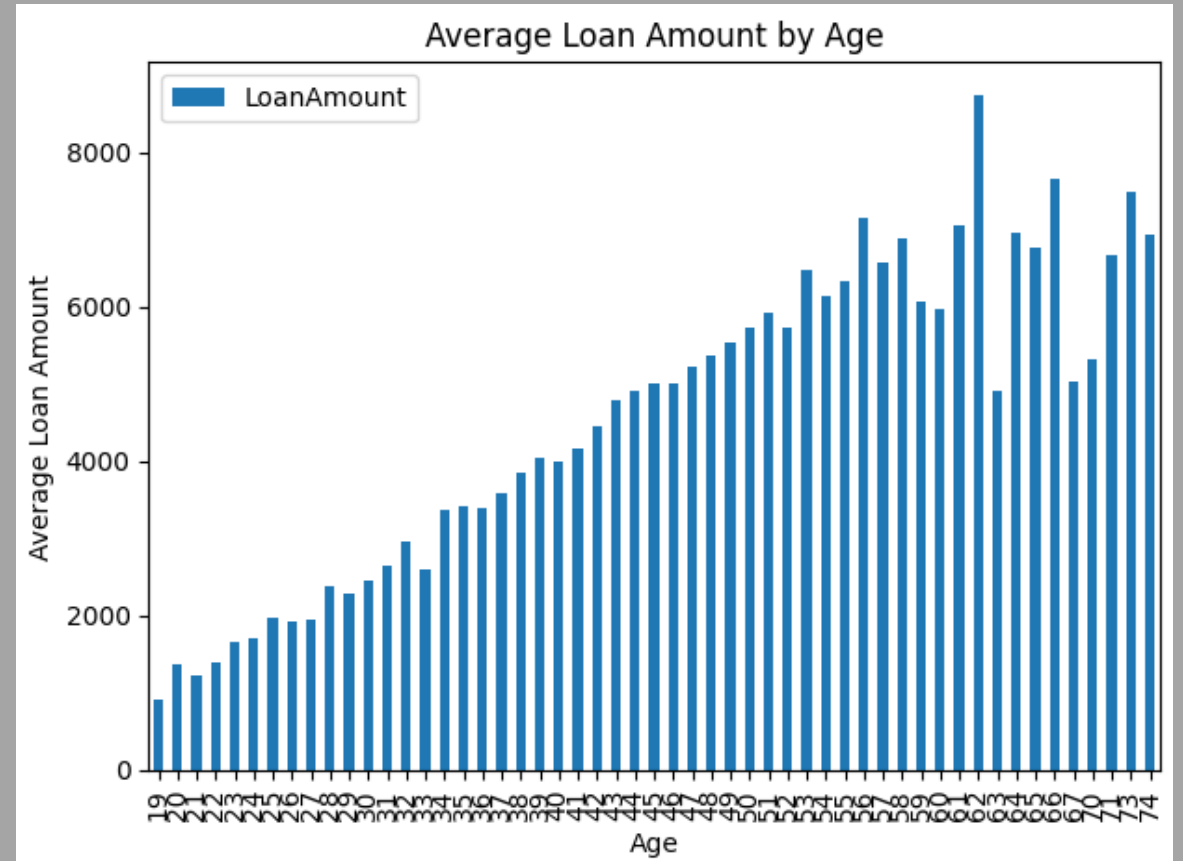
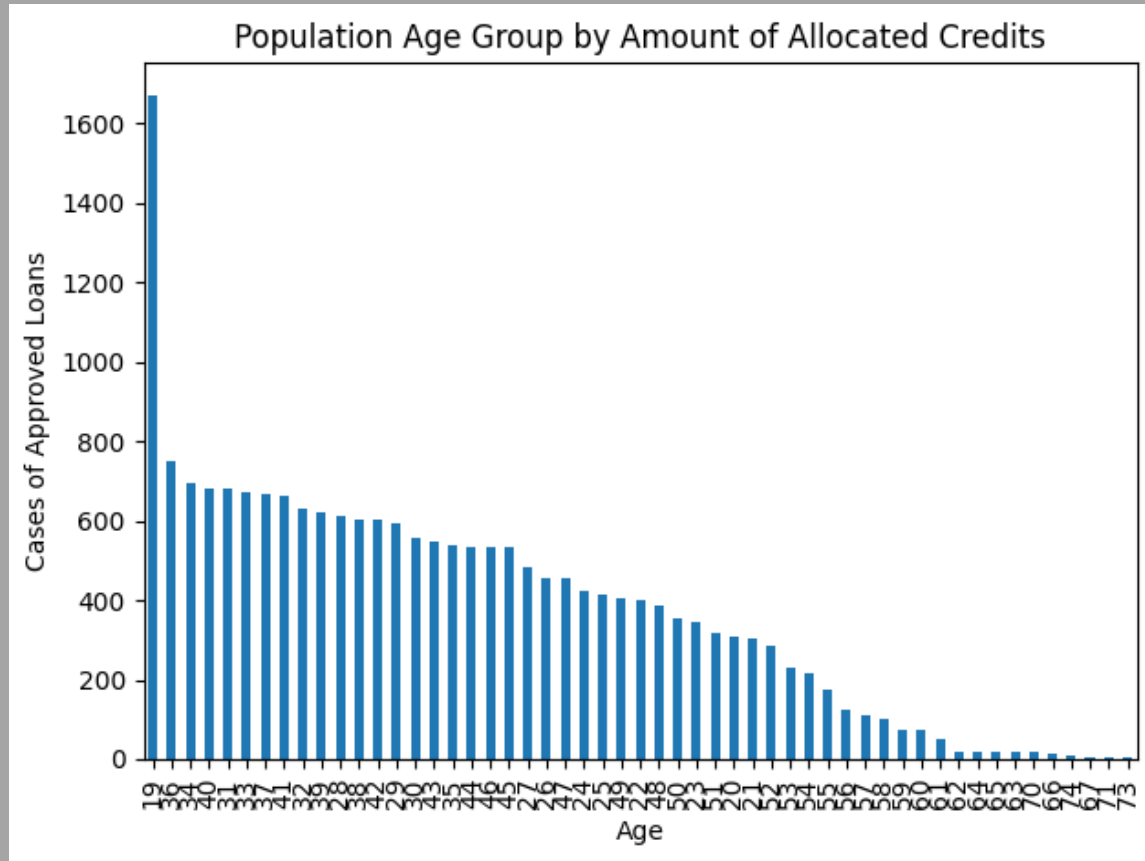
From 20,000 allocated credits, the most credits were approved for:



Number of Credits allocated

LoanPurpose	
car_new	3780
furniture	3412
car_used	3232
radio_tv	3020
appliances	2244
repairs	1132
vacation	820
education	668
retraining	656
business	584
other	452

Credit Allocated by Age VS Credit Allocated by Loan Amount



Conclusion

- The majority of people approved to have loans are 19 years old, this doesn't mean that the highest amount of credit loan amount goes to this segment.
- The most approved type of loan is to purchase a new car, this doesn't mean that in total is the type of credit with the most loan amount allocated.
- The Type of credit with the highest loan allocation is radio_tv, followed by furniture. New Car Loan is located in the 5th place.
- Marketing department should target different ranges of ages and types of loans, striving to reach all population ages and needs of loan types.