## Relationship Between Seattle Pet Licensing & Income by Zip Code ETL Report

## Team Members:

- 1. Oleksandra Ianchevska
- 2. Surabhi Sood
- 3. Zina Zachmann

Extract							
File Name	Source	Alternative Source	Format				
seattle_pet_licenses.csv	https://www.kaggle.com/aaronschlegel/seattle- pet-licenses	https://data.seattle.gov/Community/Seattle -Pet-Licenses/jguv-t9rb	CSV				
wa_incomes_zip_code.csv	https://www.kaggle.com/aaronschlegel/seattle- pet-licenses?select=wa_incomes_zip_code.csv	https://www.irs.gov/statistics/soi-tax- stats-individual-income-tax-statistics-zip- code-data-soi	CSV				
zip_code.csv	https://www.zipcodestogo.com/Washington/		CSV				

## Transform

File Name	Data Frame Name	Renamed Columns	Col. Data Type Change	Rejected Data	Deleted Column	Merged	Aggregation
seattle_pet_licenses.csv	pet_licenses_data	'zip_code' →  'Zip Code'	Change Column "Zip Code" = string	Drop incorrect zip codes	*secondary_breed  * animal_s_name	zip_code_data, pet_licenses_data, left_on="Zip Code", right_on="Zip Code"	None
wa_incomes_zip_code.csv	income_data	None	Change Column "Zip Code" = string	None	*Number of single returns  *Number of single returns  *Number of joint returns  *Number of head of household returns  *Number with paid preparer's signature  *Number of exemptions  *Number of dependents  *Total prepared returns	target_data, income_data, left_on="Zip Code", right_on="Zip Code"	None

					*Number of volunteer income tax assistance (VITA) prepared returns  *Number of tax counseling for the elderly (TCE) prepared returns  *Number of volunteer prepared  *Number of refund anticipation loan returns  *Number of refund anticipation check returns  *Number of refund anticipation check returns  *Number of rederly returns [3]  *Adjusted gross income (AGI) [4]  *Number of returns.1		
zip_code.csv	zip_code_data	None	None	None	None	zip_code_data, pet_licenses_data, left_on="Zip Code", right_on="Zip Code"	None

N/A	target_data	None	Change Column 'license_number' = integer  Parsing "License Issue Date" column into year only	Drop NaN Drop duplicates	*Adjusted Gross Income	target_data, income_data, left_on="Zip Code", right_on="Zip Code"	Columns:  "Zip Code"  "License Issue Date"  "License Number"  "Primary Breed"  "Species"  Sum Columns:  "Number of returns"  "Total Income Amount"
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<sup>\*</sup> denotes a new column

Load						
Final Data Base	Table	Data Frame				
PostgreSQL using SQLAlchemy	license_zip	target_data				
HEROKU	daoq1dnihjoiui	target_data				

The data has been prepared for analysis of correlation between a number of pet licenses issued and income by a zip code in the city of Seattle.