

Path to Prosperity: A Comprehensive Analysis
of Financial Independence based on data
taken from reddit.

Financial Independence: is the status of having enough income or wealth sufficient to pay one's living expenses for the rest of one's life without having to be employed or dependent on others. Income earned without having on work a job is commonly referred to as passive income. Others define financial independence differently according to their own goals.

Reddit is an American Social news aggregation, content rating, and discussion website. Registered users (commonly referred to as "redditors") submit content to the site such as links, text posts, images, and videos, which are then voted up or down by other members.

Financial Independence, Retire Early (FIRE) is a movement of people devoted to a program of extreme savings and investment that aims to allow them to retire far earlier than traditional budgets and retirement plans would permit.

Project Flow

To accomplish this, we have to complete all the activities listed below,

→ Define Problem / Problem Understanding

- * Specify the business problem
- * Business requirements
- * Literature Survey
- * Social or Business Impact.

→ Data Collection & Extraction from Database

- * Collect the data set,
- * Connect IBM DB2 with IBM Cognos.

→ Data Preparation

- * Prepare the Data for visualizations.

→ Data Visualizations.

- * No of unique visualizations.

→ Dashboard.

- * Responsive and Design of Dashboard.

→ Story

- * No of Scenes of Story

→ Report

- * creating a report

→ Performance Testing

- * Amount of Data Rendered to DB.
- * Utilization of Data Filters
- * No of Calculation Fields

* No of visualizations / graphs.

→ Web Integration

* Dashboard and story embed with UI with Flask.

→ Project Demonstrations & Documentation

* Record explanation video for project end to end solution

* Project Documentation - Step by step project development procedure

Milestone 1: Define Problem / Problem Understanding.

Activity 1: Specify the business problem.

Refer Project Description

Activity 2: Business requirements.

The business requirements for this project would likely include

Data collection: The first requirement is to collect data from Reddit that is relevant to financial independence, such as discussions on personal finance, savings and investing, and retirement planning.

Data cleaning and preparation: The collected data must be cleaned and processed to ensure it is suitable for analysis. This may involve removing irrelevant information, correcting inconsistencies and missing values, and transforming the data into a format that is compatible with the analysis tools.

Data analysis: The data must be analysed to uncover meaningful insights into financial independence. This could involve using techniques such as descriptive statistics, regression analysis, and data visualization to gain a deeper understanding of the data.

Report creation: The insights and findings from the data analysis must be presented in a comprehensive report that includes visualizations.

and data tables. The report must be well organized & easy to understand, with clear and concise explanations of the results.

Activity 3: Literature Survey

A literature survey for a project titled "The Path to Prosperity: A Comprehensive Analysis of Financial Independence Based on Data taken from Reddit" would involve a review of existing research and studies related to financial independence and personal finance. The objective of the literature survey would be to understand the current state of knowledge in this area and identify any gaps in the existing research that the project can address.

Activity 4: Social or Business Impact

Social Impact: The findings from this project could help people in better planning their finances & other assets.

Business Model Impact: A high level of financial independence for people indicates, healthy economic conditions for the country.

Stilestone 2: Data collection & extraction from Data base

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes and generate insights from the data.

Activity 1: collect the data set.

Please use the link to download the data set :

<https://drive.google.com/file/d/1QaxWt87q-n-zFn21iCzQbDJKNER0C95gx4/view?usp=share-link>.

Activity 1.1: Understand the data.

Check the below link out to understand the dataset in detail.

<https://data.world/drenader/reddit-financial-independence>

Activity 2: Connect IBM DB2 with IBM cognos.

Explanation video link:

<https://drive.google.com/file/d/15-vc0Lx9zRQGIV7vAgJbrDX-iNja2m8g/view?usp=share-link>.

✓ Milestone 3 : Data Preparation

Activity 1: Prepare the Data for Visualization.

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized, exploring the data to identify patterns and trends, filtering the data to focus on specific subsets of data, preparing the data for visualization software and ensuring the data is accurate and complete. This process helps to make the data easily understandable & ready for creating visualizations to gain insights into the performance and efficiency.

Activity 1.1 : Preparing a Data Module .

→ <https://drive.google.com/file/d/1DhkmTgXQ68SuCyxXrtBwtkar-WA8qP5Ej/view?usp=share-link>.

The screenshot shows the IBM Cognos Analytics with Watson interface. The top navigation bar has a 'New' button and a link to 'Data Module'. Below the navigation bar, there is a main menu with the following items:

- Home
- New
- upload data
- Content
- Recent
- Manage

After the 'Recent' item, there is a dropdown arrow pointing to a sub-menu:

- Present
- Dashboard
- Report
- Story

A callout box highlights the 'Data Module' option under the 'New' category.

Milestone 4: Data Visualization.

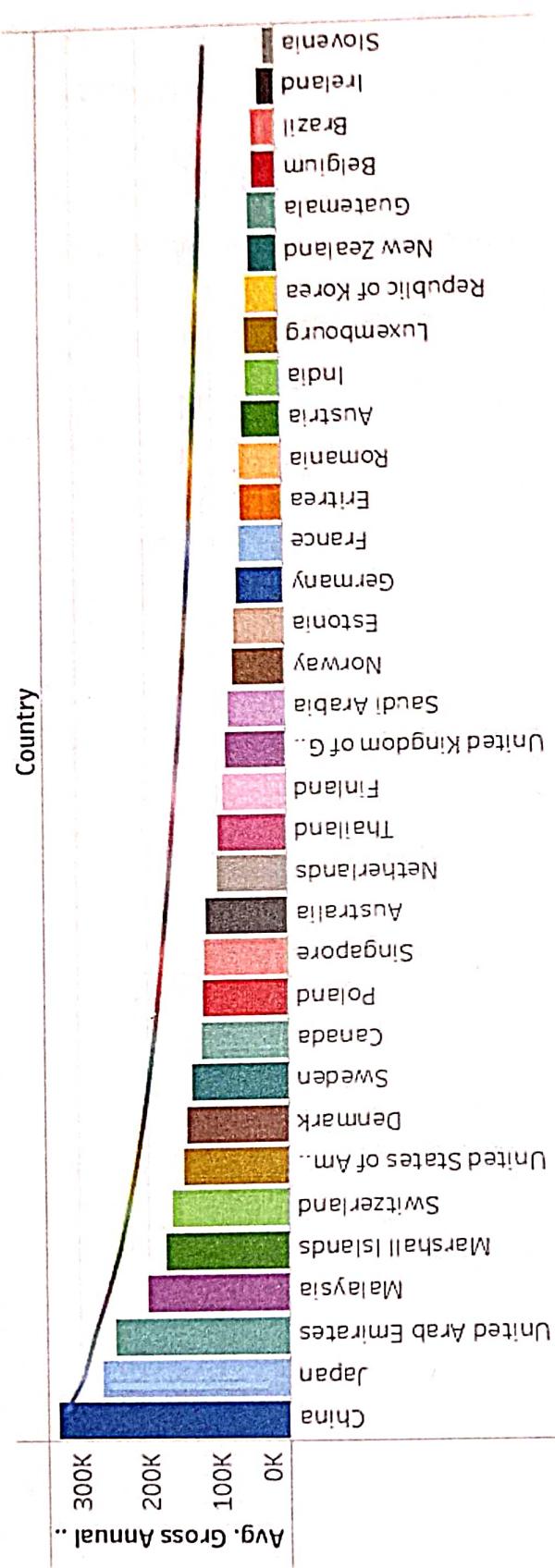
Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, & easier to interpret. By using visual elements such as charts, graphs and maps, data visualizations can help people quickly identify patterns, trends & outliers in the data.

Activity 1: No of unique visualizations.

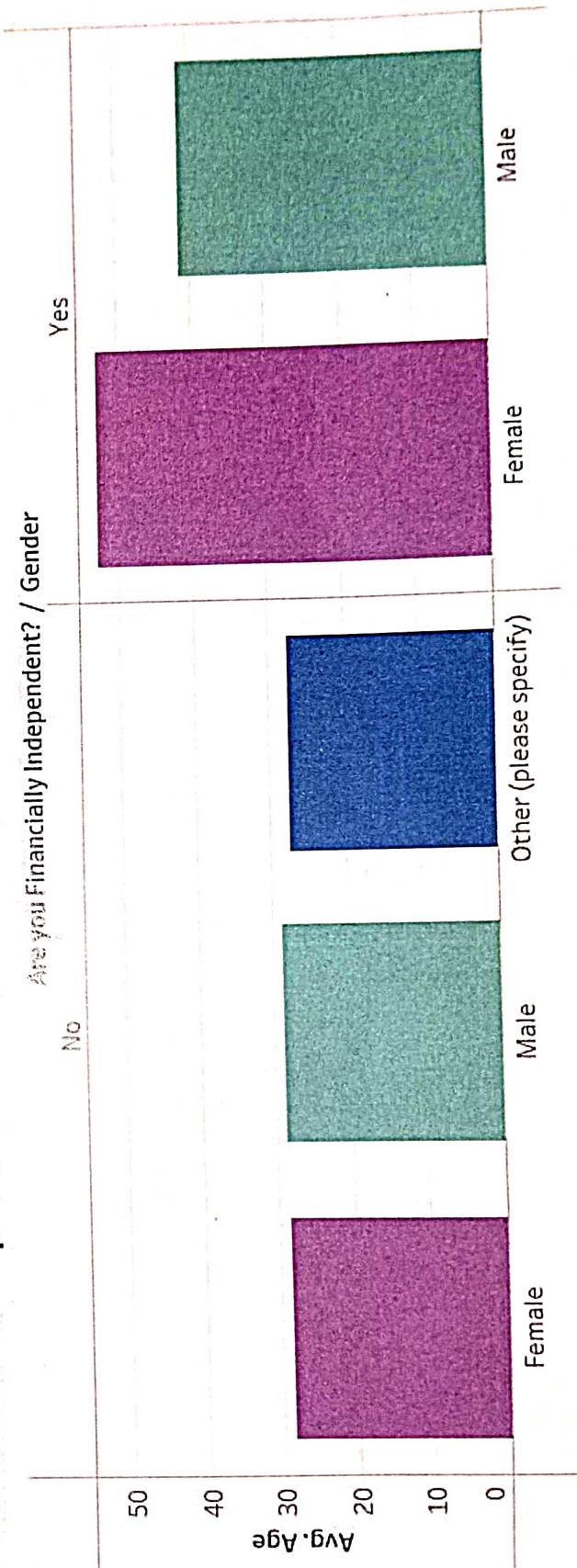
The number of unique visualizations that can be used created with a given dataset. Some common types of visualizations that can be used to analyse the Reddit Financial Independence data include bar charts, line charts, heat maps, scatter plots, pie charts, maps etc. These visualizations can be used to compare performance, track changes over time, show distribution and relationships between variables.

Activity - 1 Visualizations

Average Gross Annual Wage Income by Country



Financial Independence by Average Age and Gender



Milestone 5: Dashboard

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, health care etc. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the format of charts, graphs and tables.

Activity 1:- Responsive and Design of Dashboard

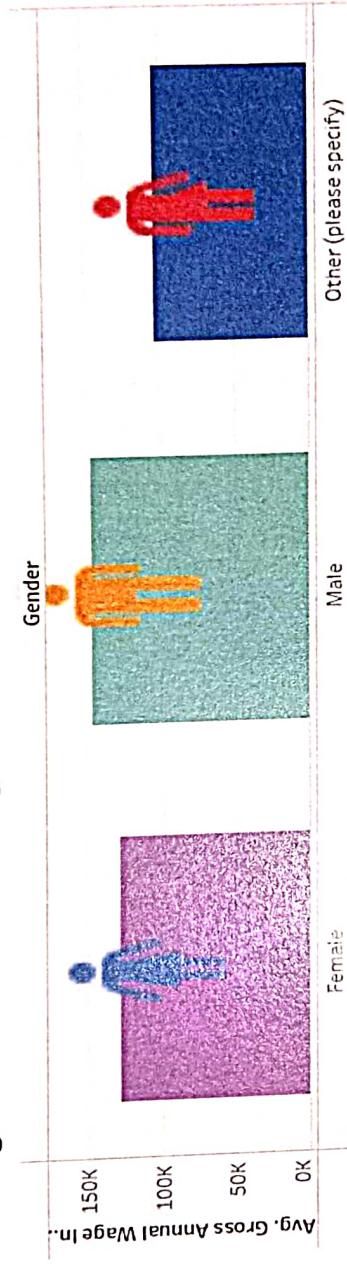
The responsiveness and design of a dashboard for analysing the factors important for financial independence is crucial to ensure that the information is easily understandable and actionable. Key considerations for designing a responsive and effective dashboard include user-centered design, clear and concise information, interactivity, data-driven approach, accessibility, customization and security. The goal is to create a dashboard that is user-friendly, interactive,

and data - driven, providing actionable insights

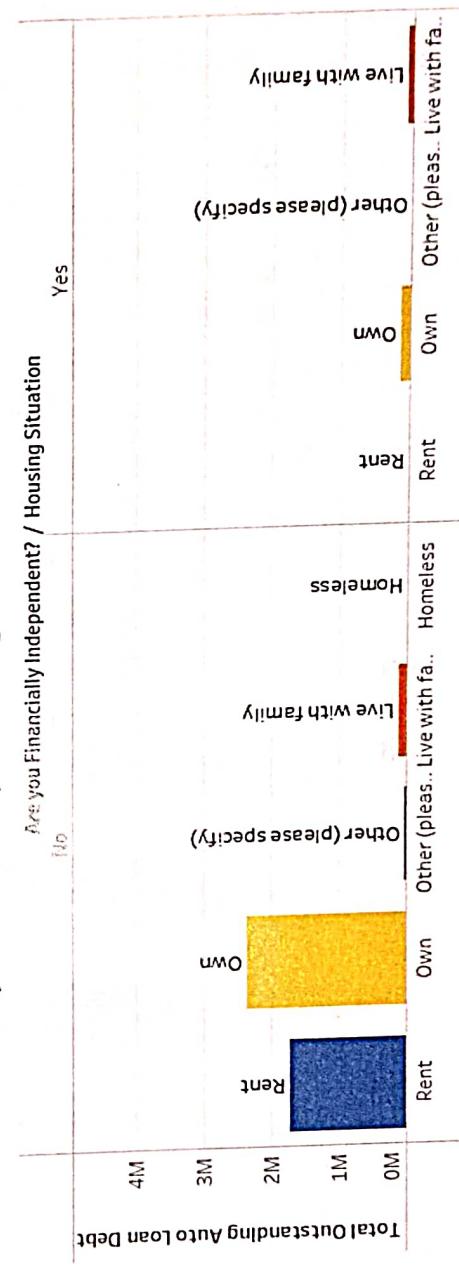
X

Dashboard 2

Average Gross Annual Wage Income by Gender

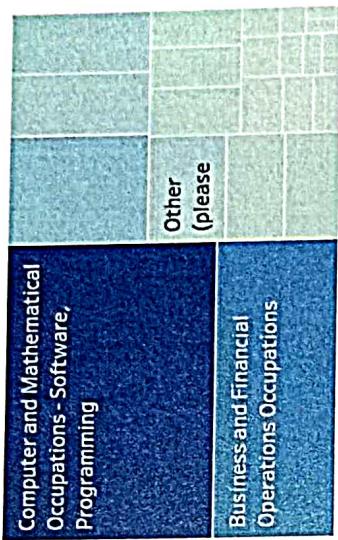
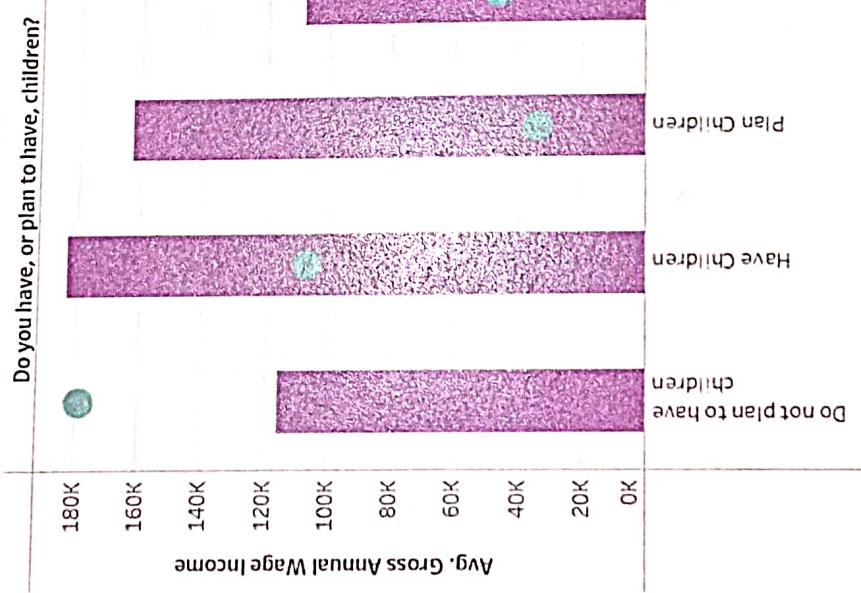


Financial Independence by housing situation and loan debit

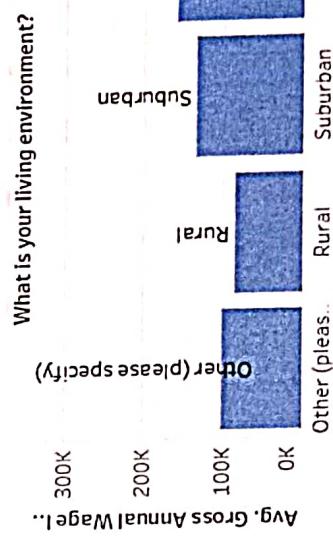


Dashboard 3

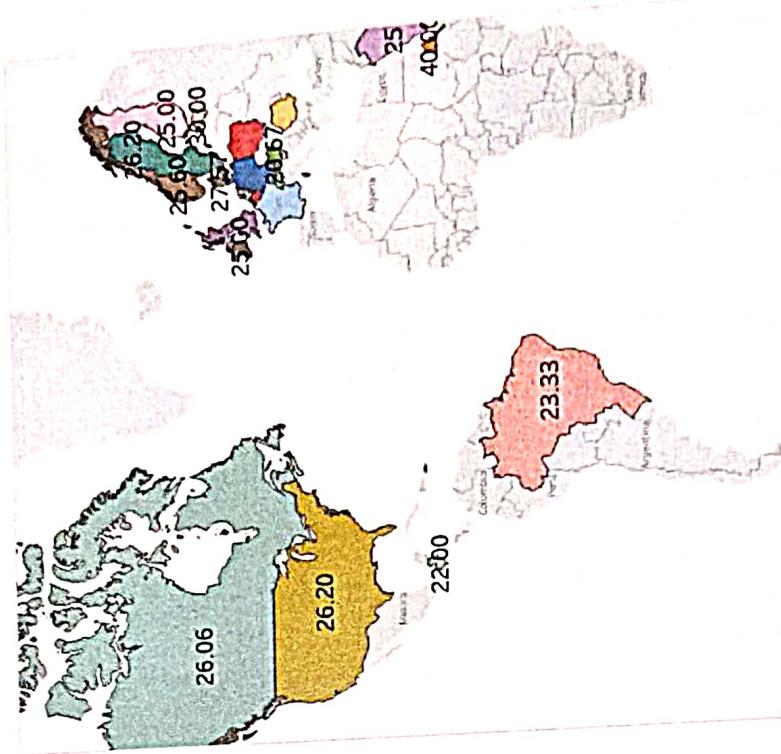
Gross Household other Income by Future Planning of Children



Average Gross Annual Wage Income by Living Environment



Dashboard 4



© 2024 Mapbox © OpenStreetMap

Milestone 6: Story

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications.

Activity 1: No of Scenes of story

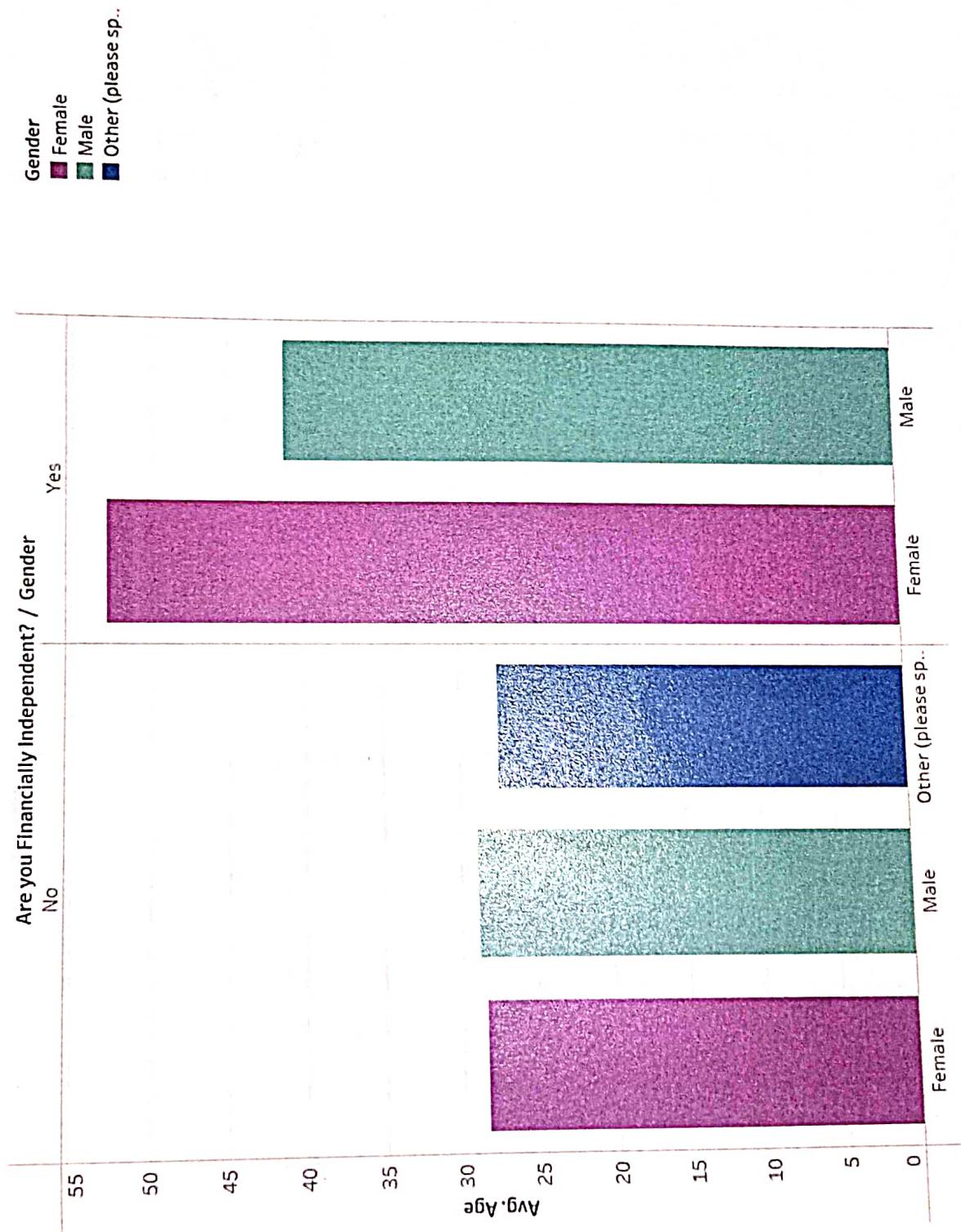
The number of scenes in a storyboard for a data visualization analysis of the factors affecting the financial independence, will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process & it breaks down the analysis into a series of steps or scenes.

Story

This visualization tells about the Financial Independence by Average Age and Gender

This visualization tells about the Average Gross Annual Wage Income by Gender

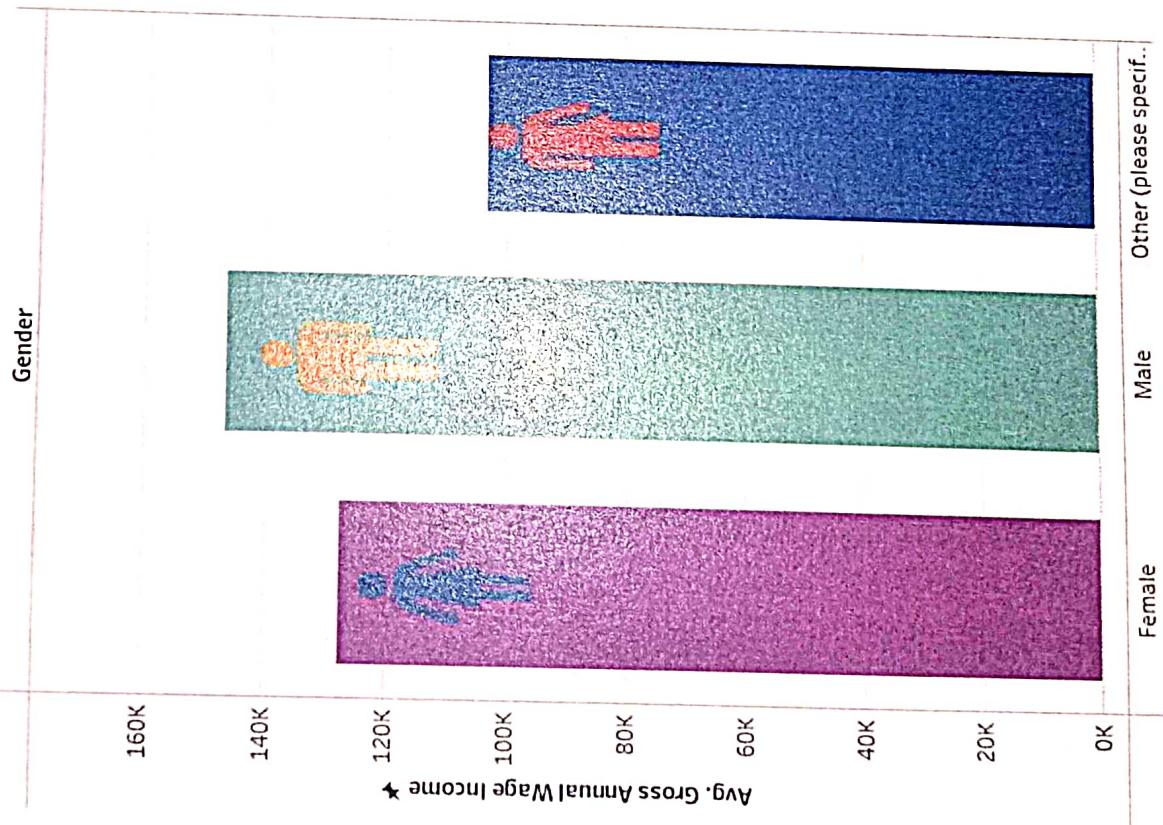
This visualization tells about the Average Gross Annual Wage Income by Gender



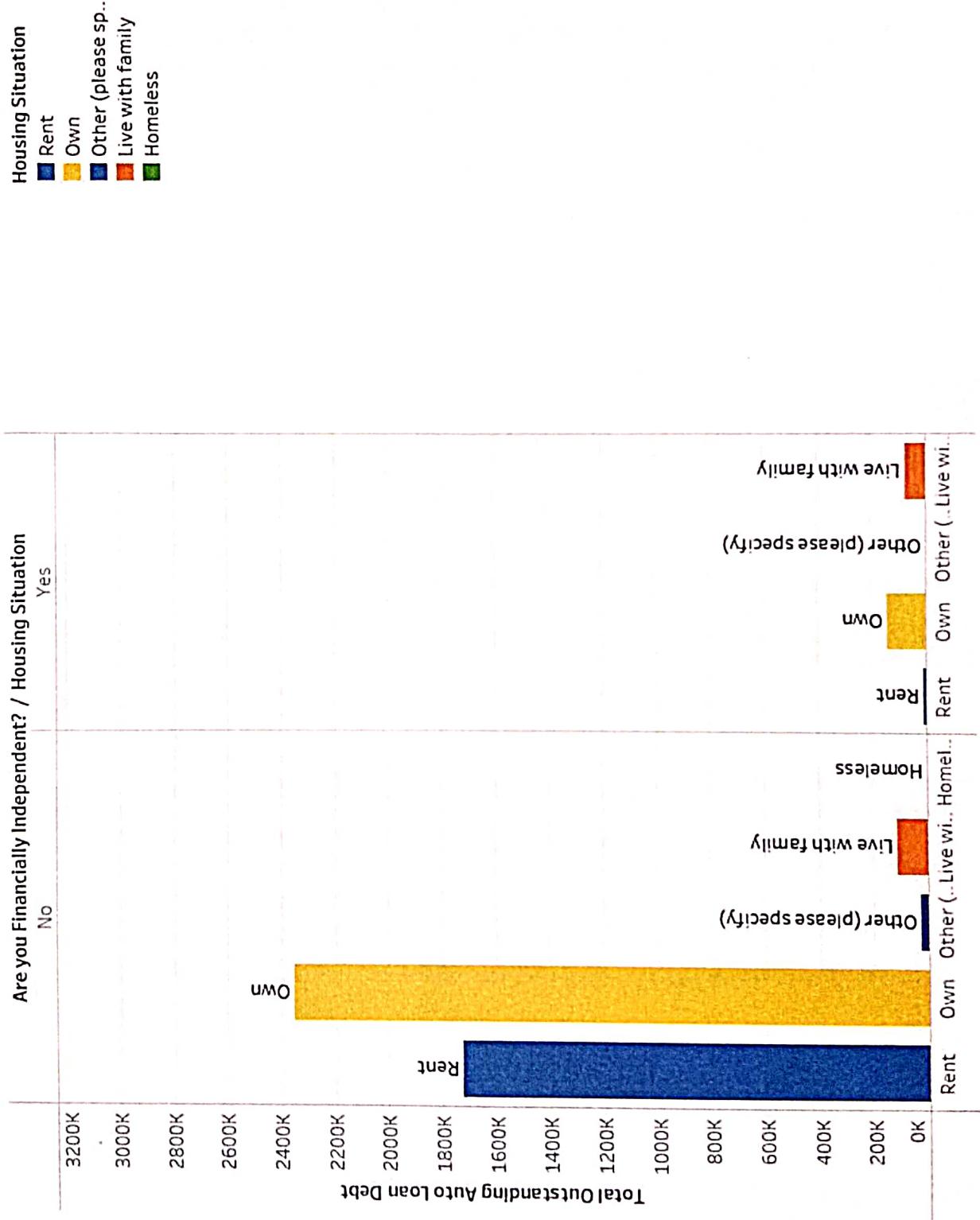
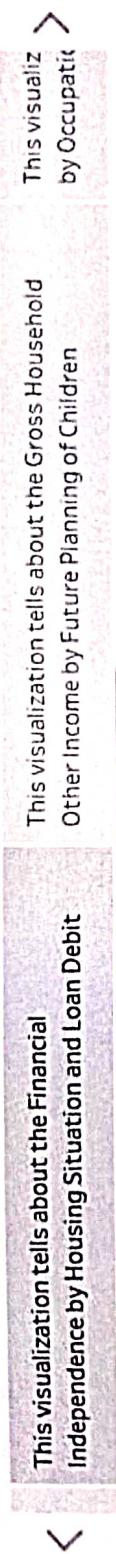
Story

This visualization tells about the Financial Independence by Average Age and Gender

This visualization tells about the Average Gross Annual Wage Income by Gender



Story



Story

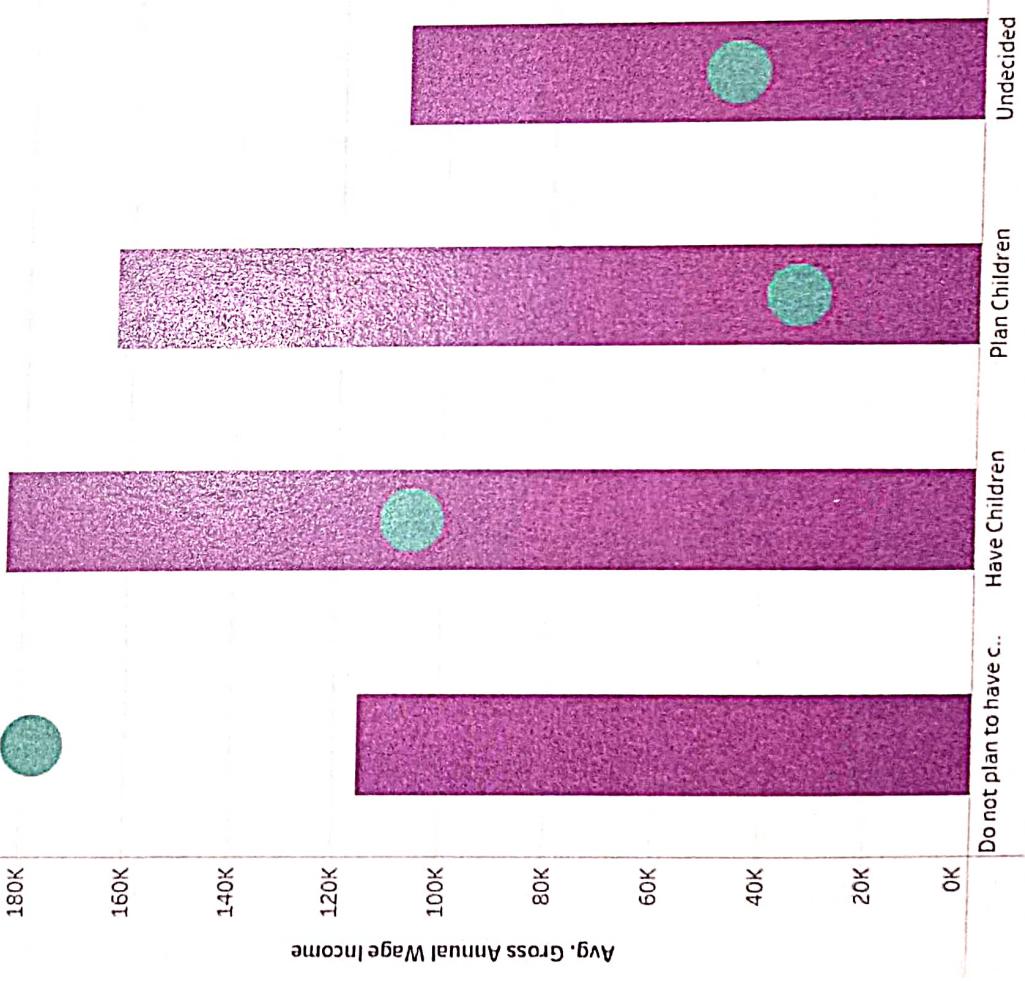
This visualization tells about the Gross Household Other Income by Future Planning of Children

This visualization tells about the Average Gross Income by Occupation

This visualization tells about the Average Gross Income by Independence

Do you have, or plan to have, children?

Measure Names
Avg. Gross Annu.
Avg. Gross Hous.



Measure Names
Avg. Gross Annu.
Avg. Gross Hous.

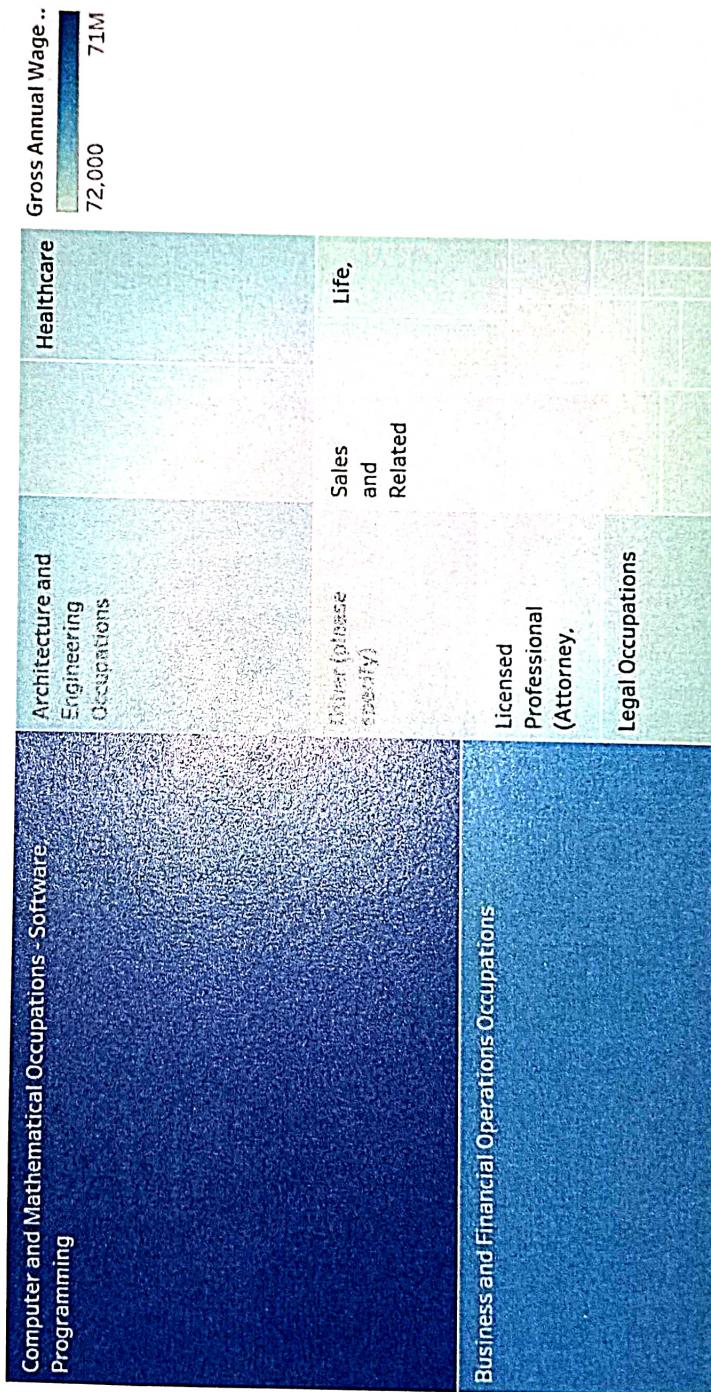
Measure Names
Avg. Gross Annu.
Avg. Gross Hous.

Story

< Household
dren

This visualization tells about the Average Gross Income
by Occupation

This visualization tells about the Financial
Independence by Average Age by Relationship Status



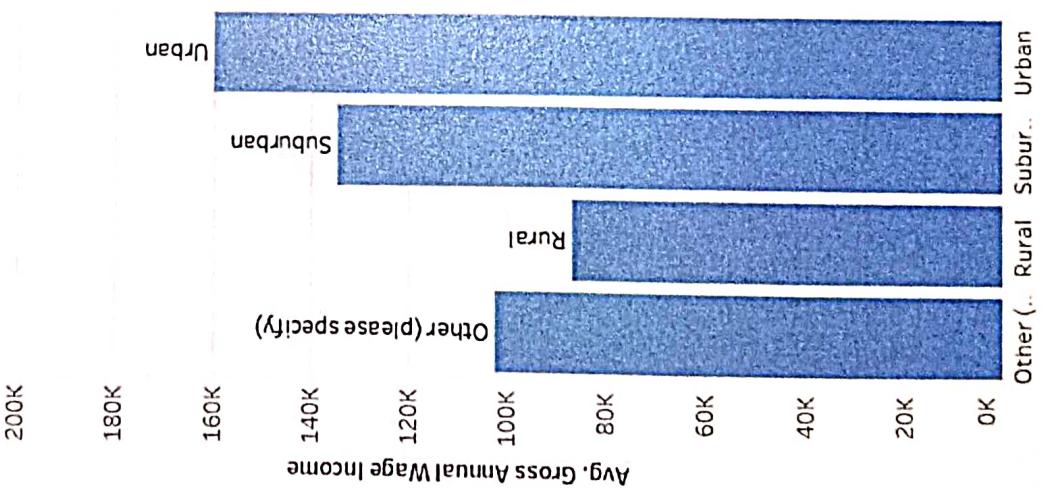
Story

< Relationship Status

This visualization tells about the Average Gross Annual Wage Income by Living Environment

This visualization tells about the Average Age When a Person Learns About FI/RE

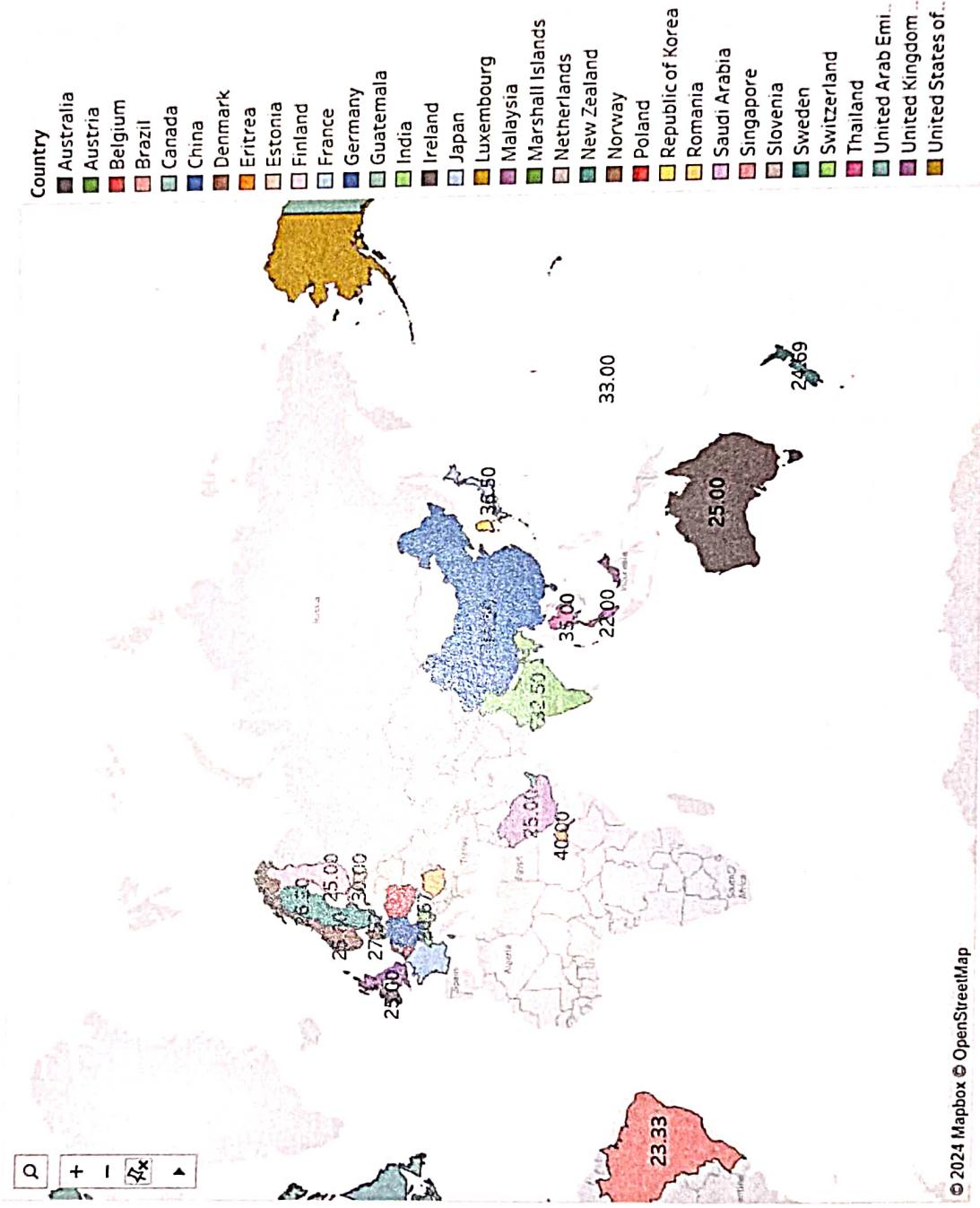
What is your living environment?



Story

Relationship Status This visualization tells about the Average Gross Annual Wage Income by Living Environment

This visualization tells about the Average Age When a Person Learns About F/RE



Filestone 7: Report

A report is a document that presents information in a specific format and layout, usually based on data from a database or other data source. A report in IBM Cognos can contain various elements, such as tables, charts, graphs and images, as well as text and data elements, and it is designed to be used by business users to help them better understand their data elements, make informed decisions. There are several different types of reports available in IBM Cognos, including list reports, crosstab reports, chart reports and report studio reports, among others.

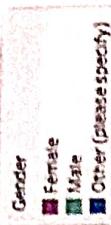
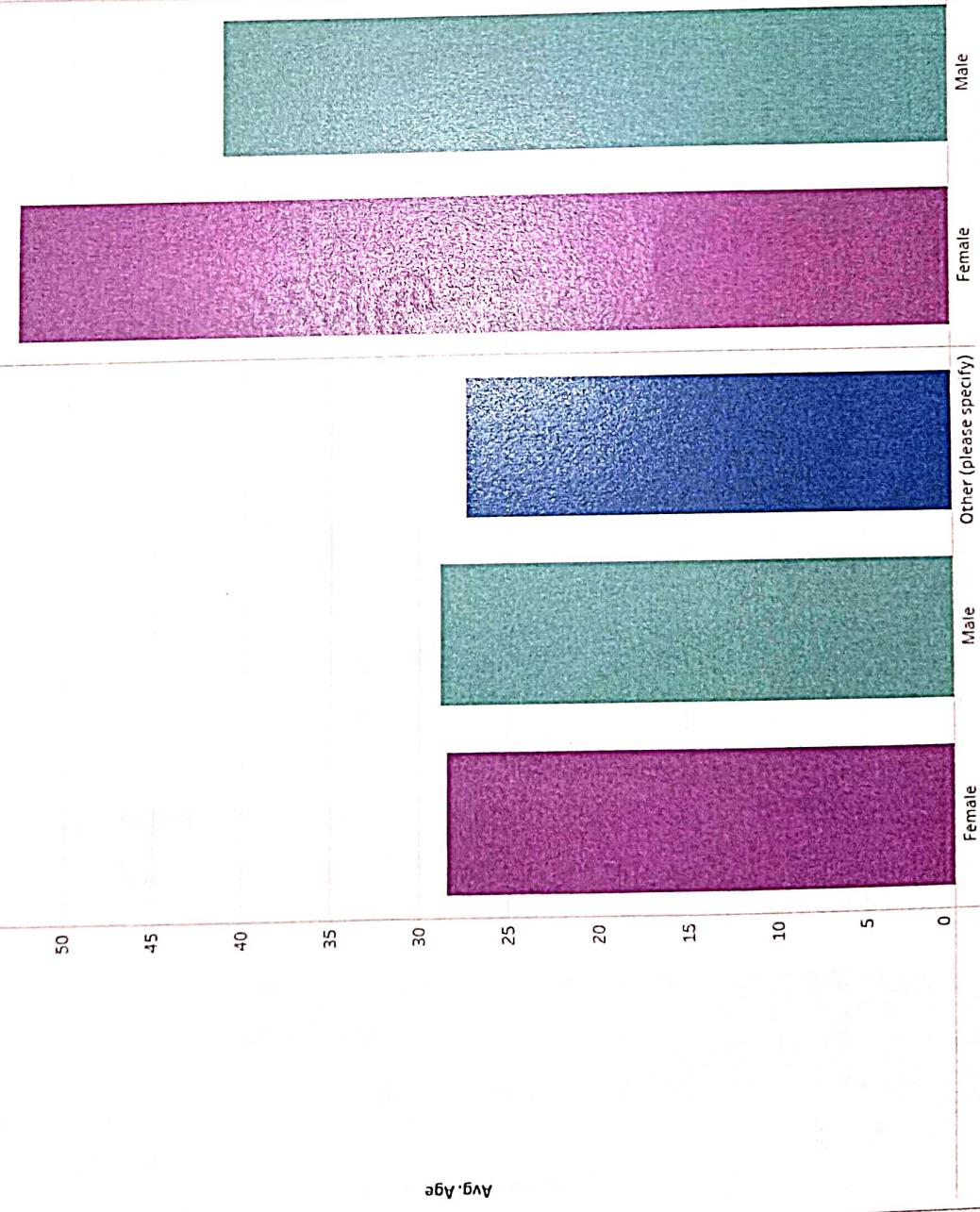
Activity 1: Creating a report.

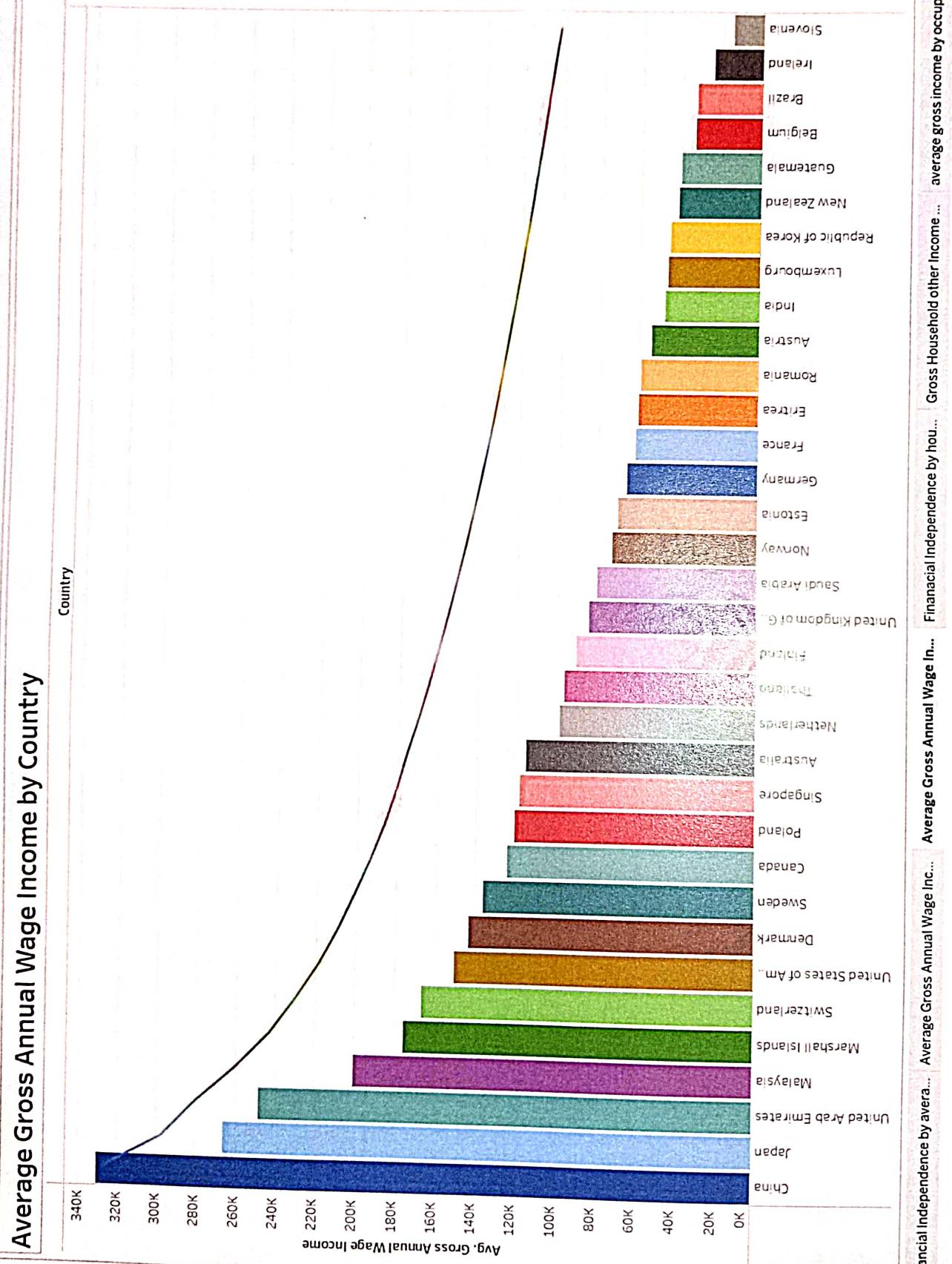
Financial Independence By Average Age and Gender

Are you Financially Independent? / Gender

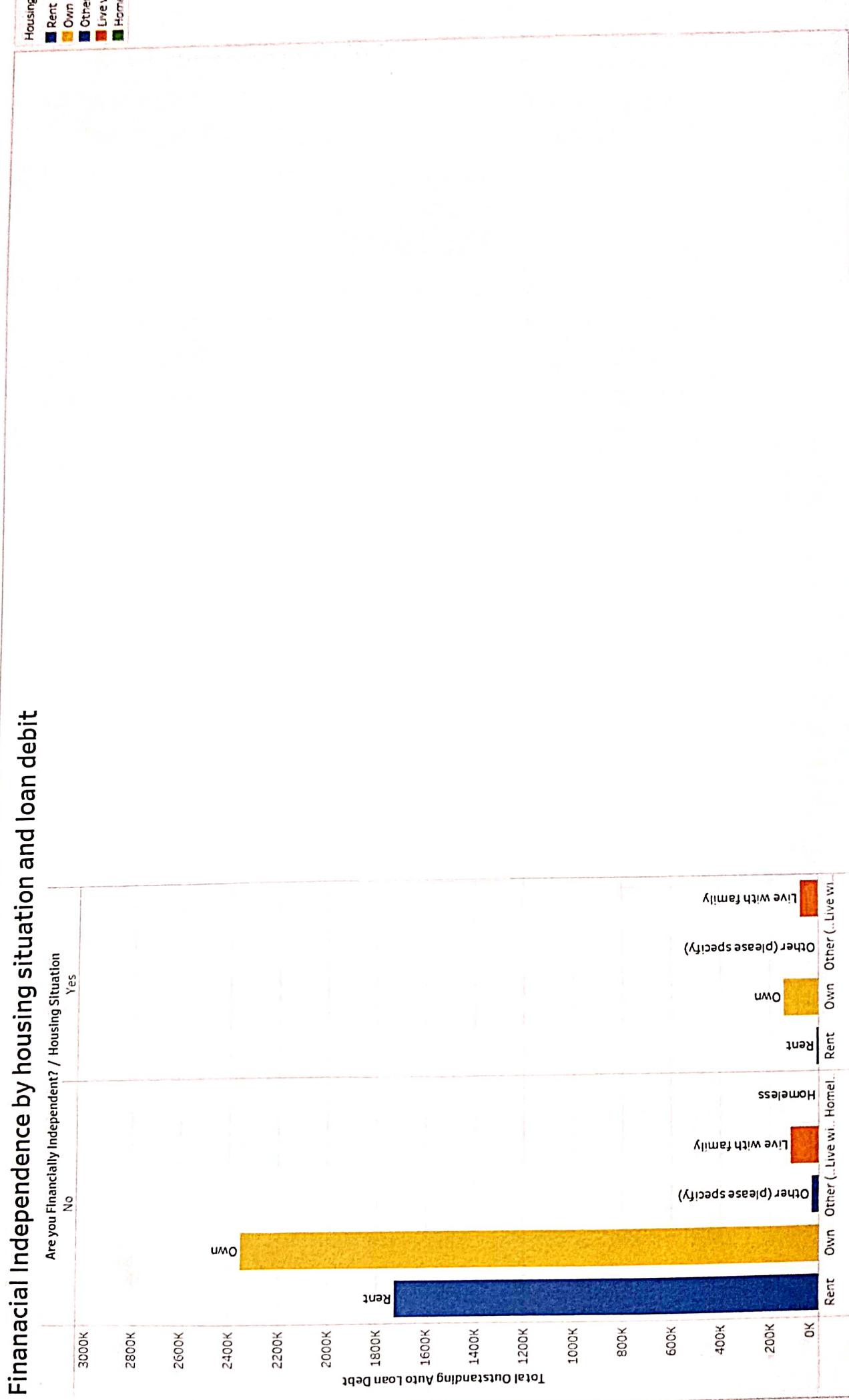
No

Yes



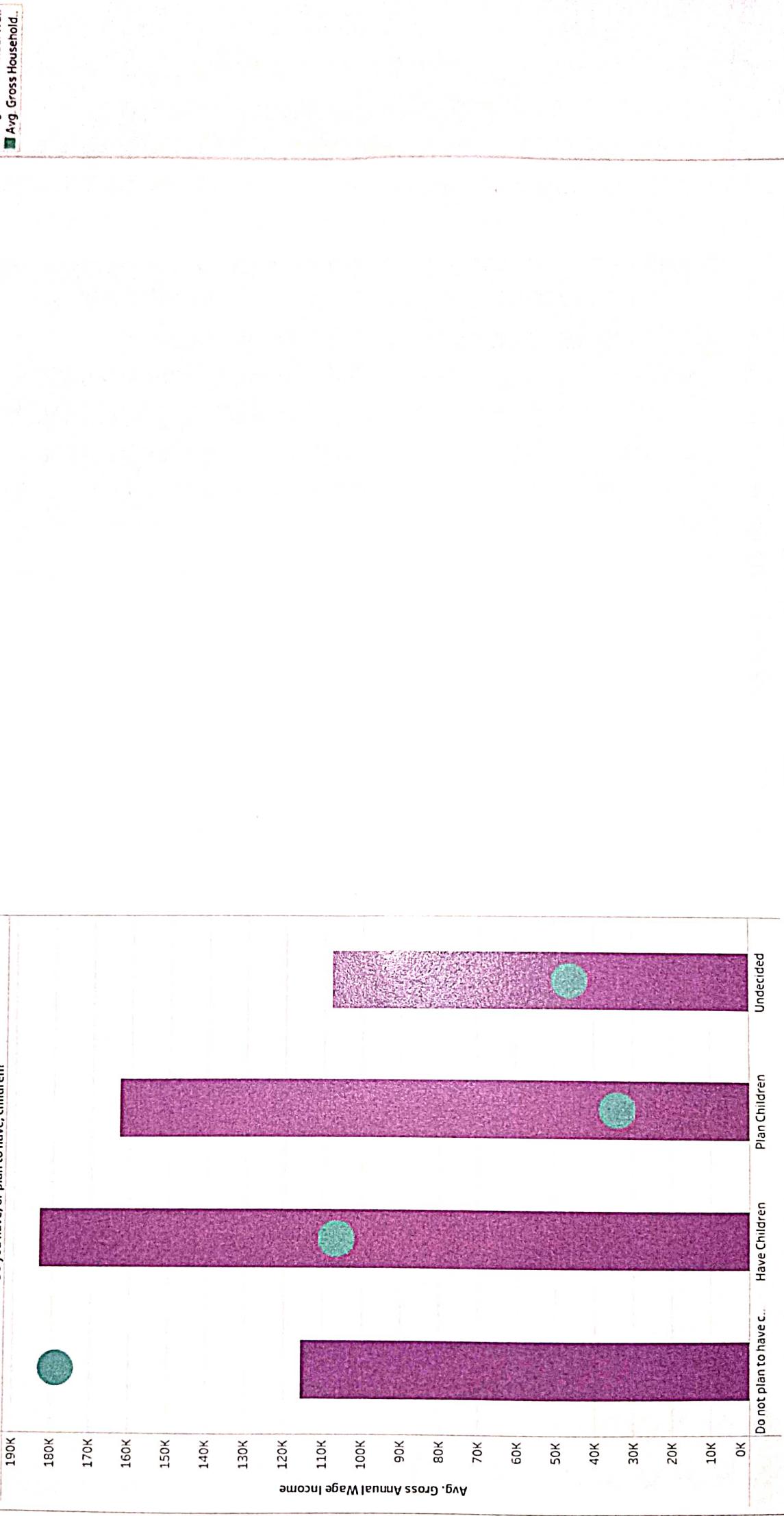


Financial Independence by housing situation and loan debit



Gross Household other Income by Future Planning of Children

Do you have, or plan to have, children?



Measure Names
Avg. Gross Annual Wa...
Avg. Gross Household...

Average Gross Income by Occupation

Computer and Mathematical Occupations - Software, Programming

SUM(GROSS ANNUAL Wdg.)
72,000 70,602,290

Architecture and Engineering Occupations		Management Occupations		Healthcare Practitioners and Technical Occupations		Other (please specify)		Sales and Related Occupations		Education, Training, and Library Occupations		Life, Physical, and Social Science Occupations		Food	

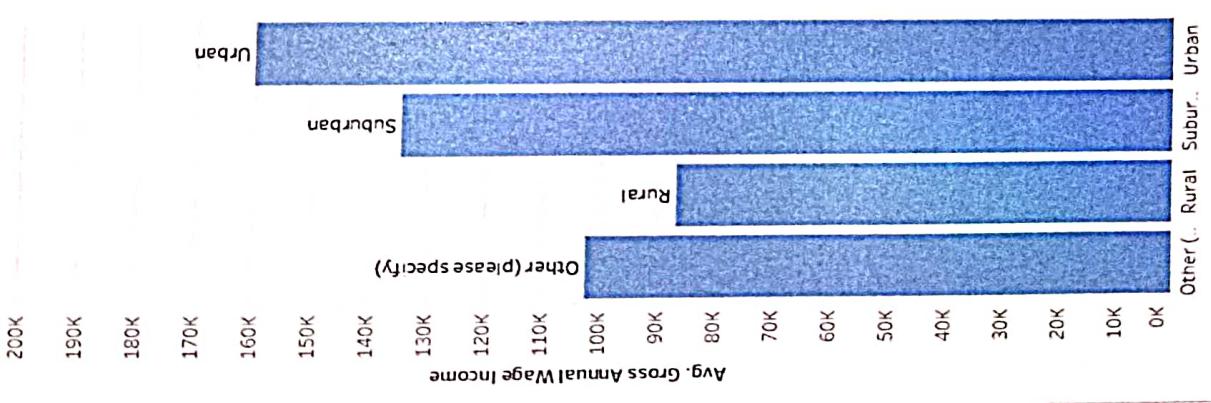
Financial independence by average age by relationship status

Are you Financially Independent?
No
Yes

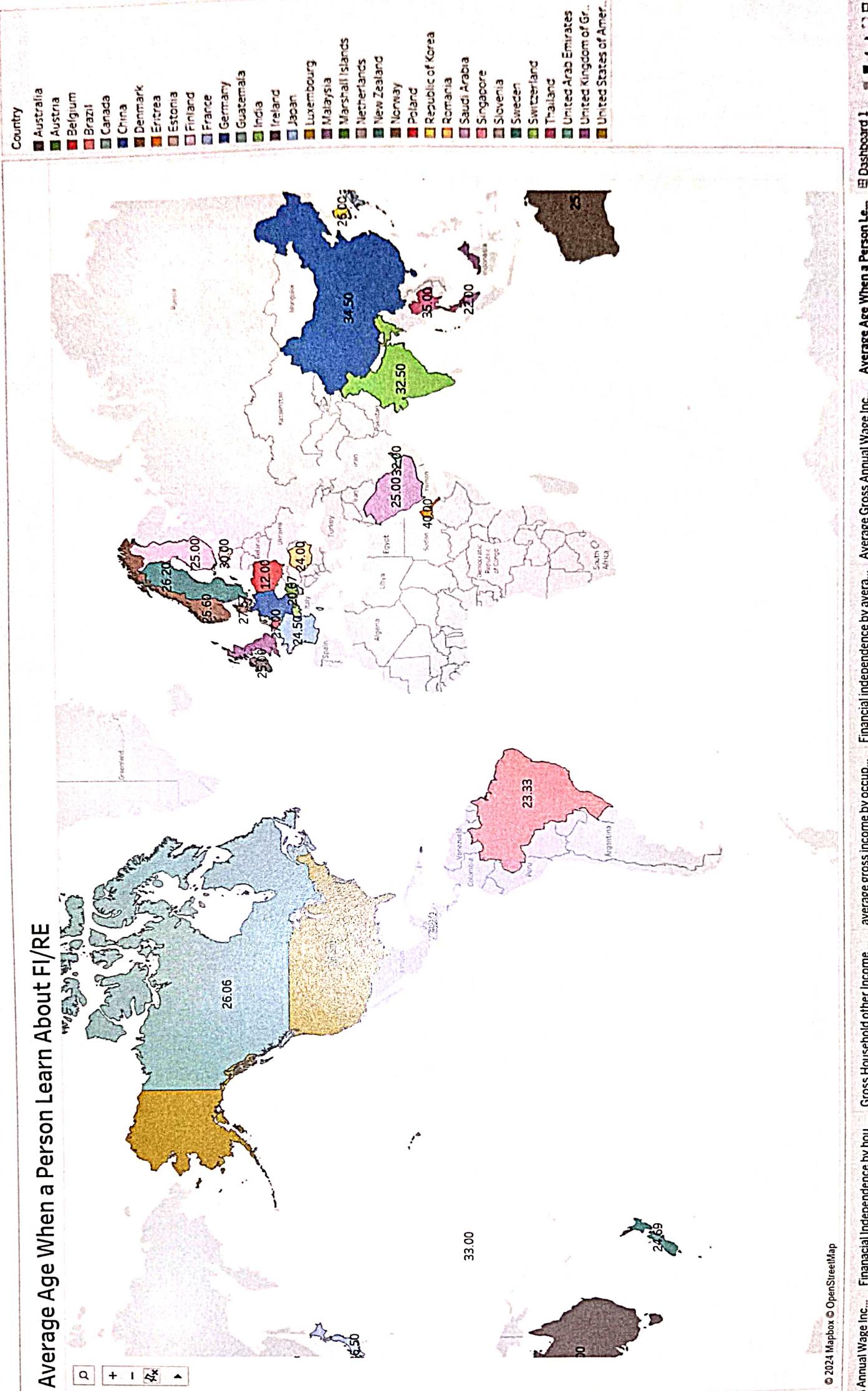


Average Gross Annual Wage Income by Living Environment

What is your living environment?

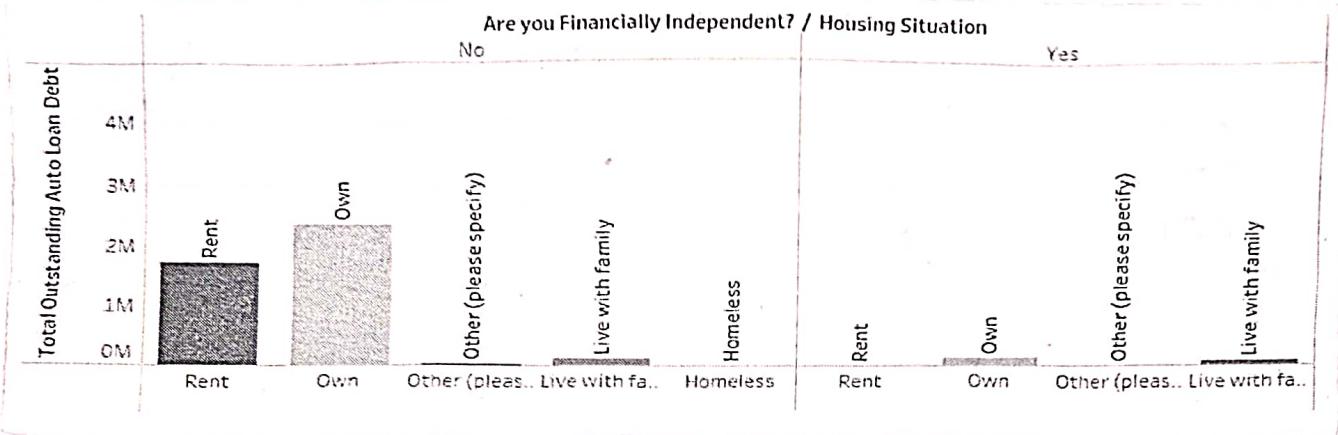


Average Age When a Person Learn About FI/RE

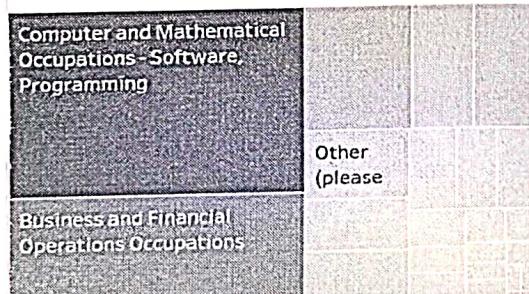


Milestone 8 : Performance Testings.

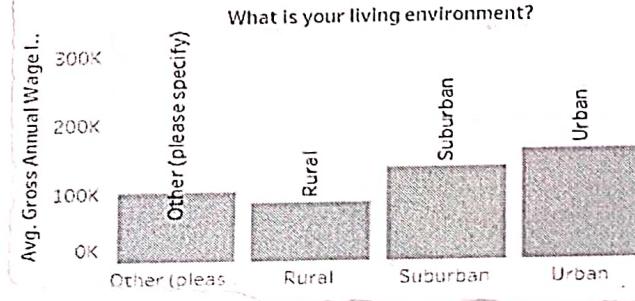
Activity 1: Utilization of Data filters.



Average Gross Income by Occupation



Average Gross Annual Wage Income by Living Environment



Activity 3: No. of Visualisations / Graphs

1. Financial Independence by average wage and gender
2. Average annual wage income by gender
3. Average gross wage income by living environment.
4. Financial independence by relationship status.
5. Top 10 countries by annual side gig income
6. Top 10 countries by annual investment income
7. Top paying occupations
8. Top 10 countries by annual wages
9. Financial independence by loan debt.

Milestone 9: Web Integration

Publishing helps us to track and monitor key metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

Integrating dashboard / reports / stories to web
Step 1: Go to Dashboard / report / story, click on Share button on the top ribbon

Activity 1: Dashboard and story embed with UI with Flask.

Explanation video links:

<https://drive.google.com/file/d/1H3kP6BbPcOmgDerfunl4D-DuBgxBFx0bI/view?usp=sharing>

Milestone 10: Project Demonstration & Documentation

Activity 1: Record explanation video for project end to end solution.

Activity 2: Project Documentation - step by step project development procedure.