BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL INSTITUTE OF TECHNOLOGY

(Empowered Autonomous Institute Affiliated to University of Mumbai)

[Knowledge is Nectar]

Advance Data Visualization

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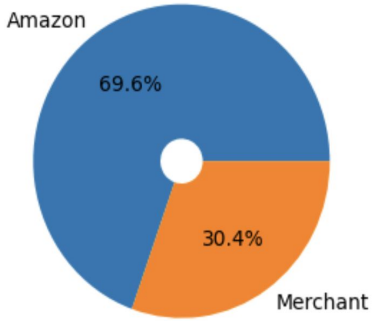
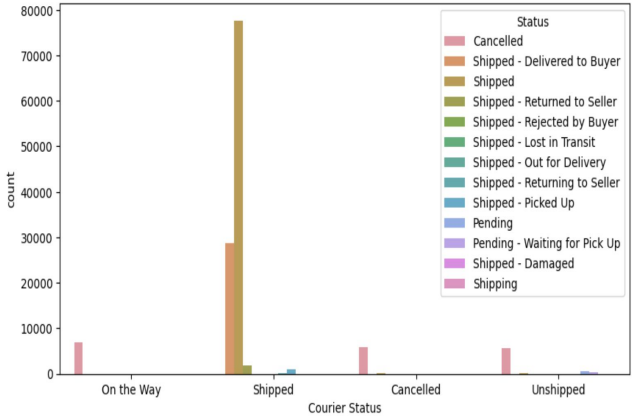
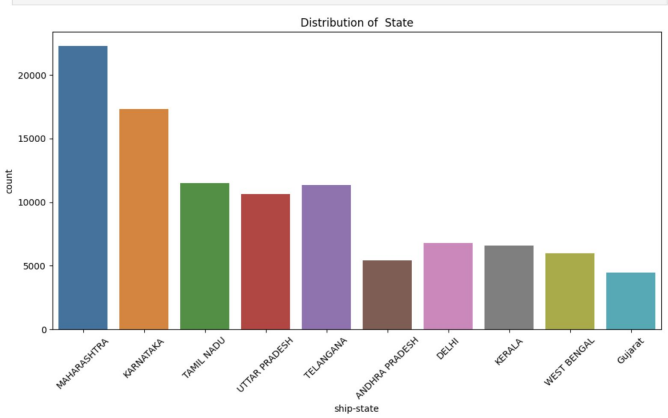
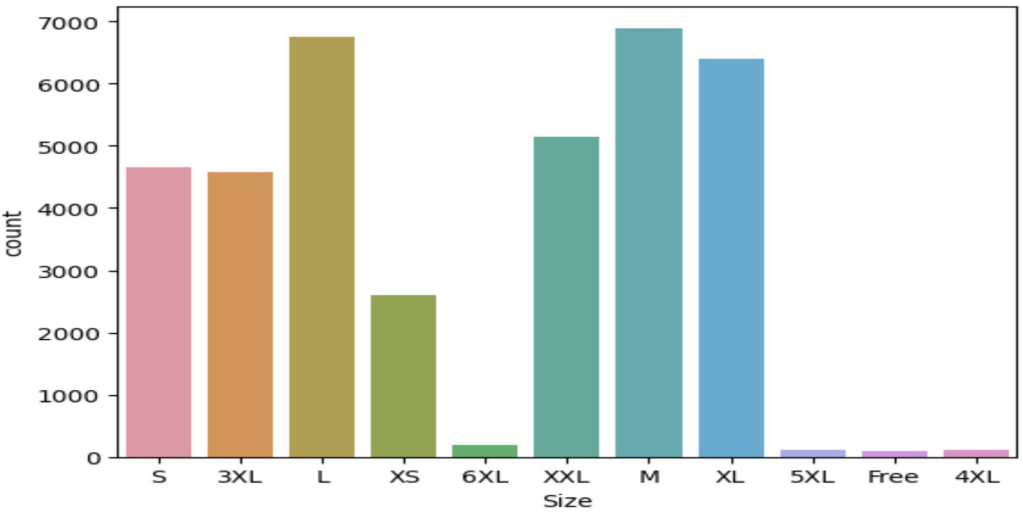
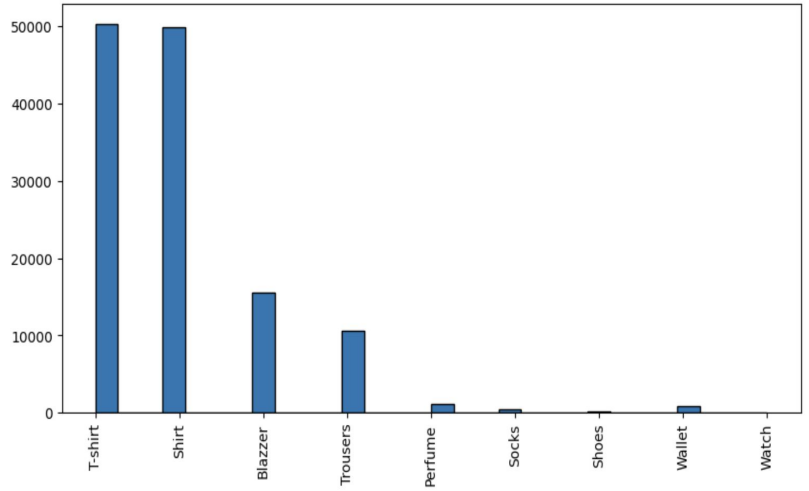


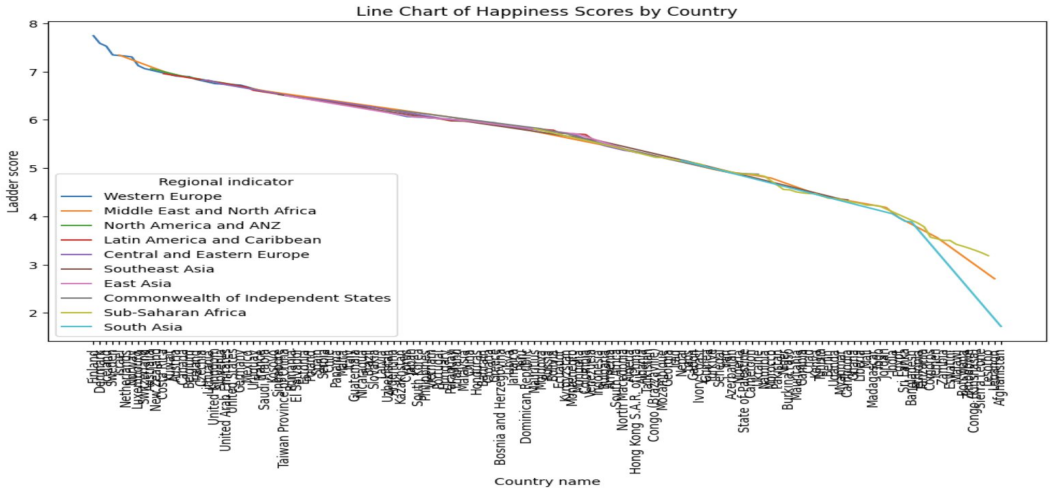


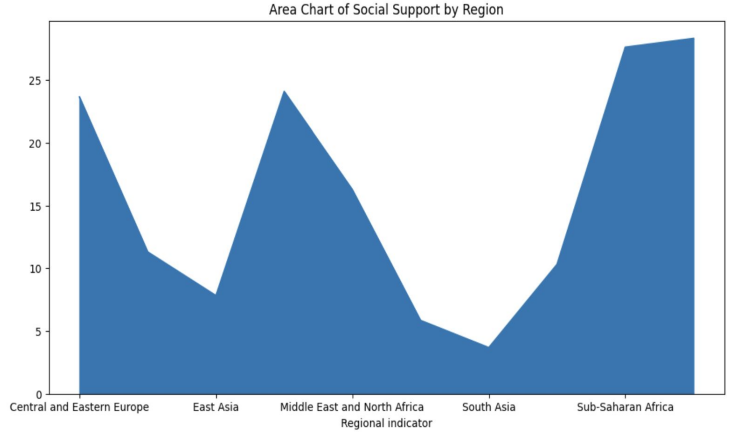


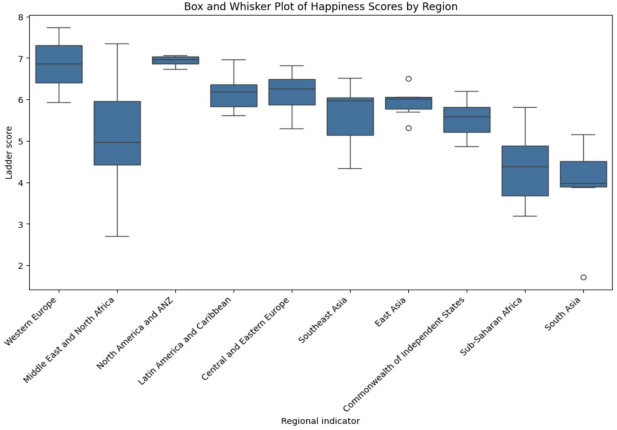


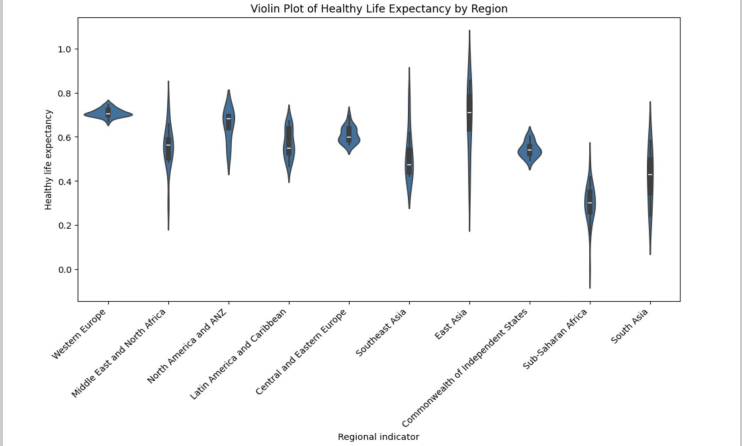


Exp 1(Amazon Sale Report): The data analysis reveals that the business has a significant customer base in Maharashtra state, mainly serves retailers, fulfills orders through Amazon, experiences high demand for T-shirts, and sees M-Size as the preferred choice among buyers.

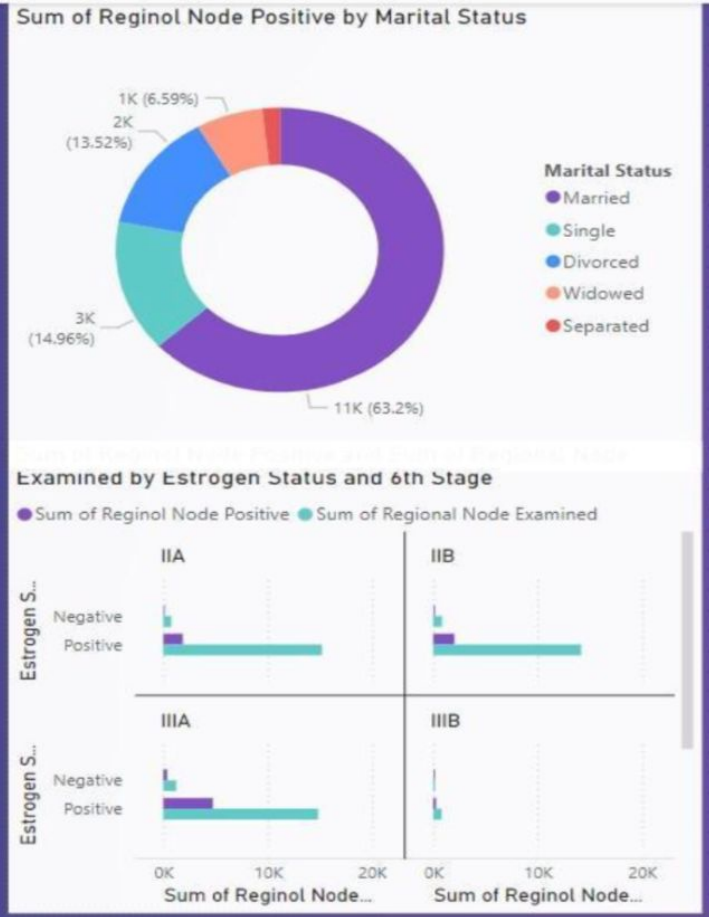


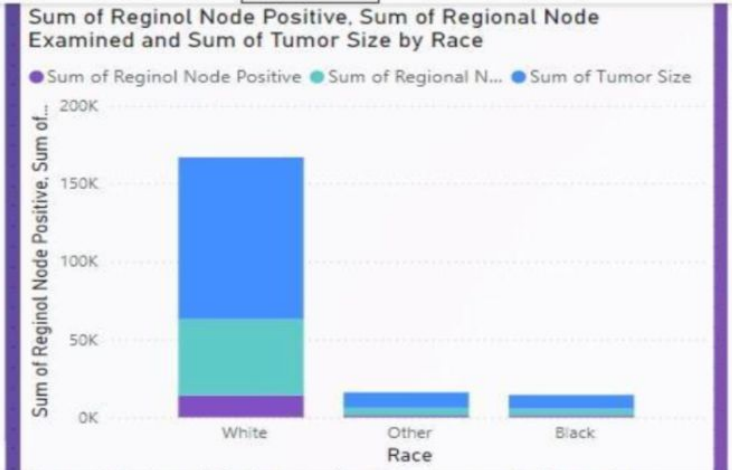


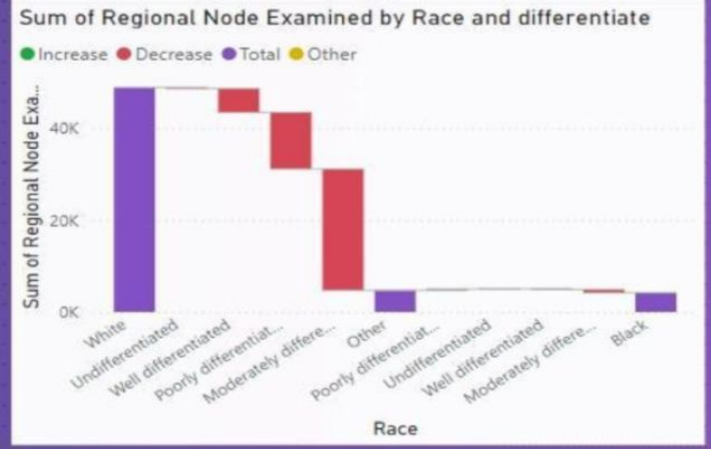


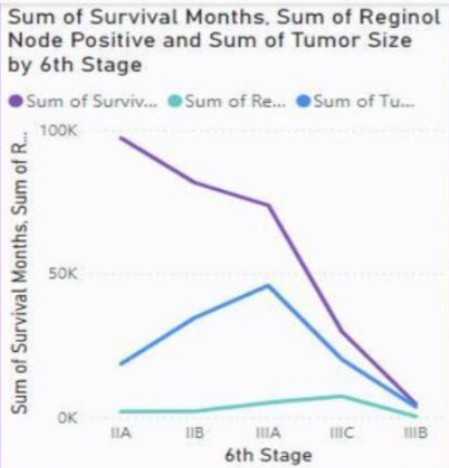


Exp 2(World-happiness-report): The data reveals global happiness insights by exploring economic and social factors like life expectancy, social support, and freedom across different regions and countries.

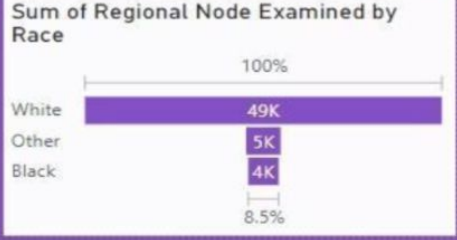




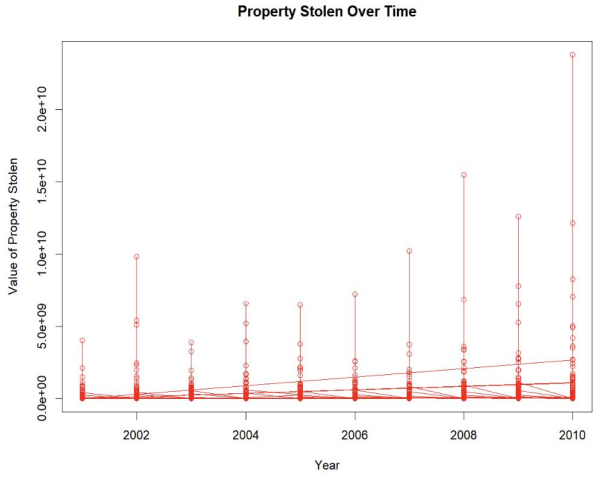


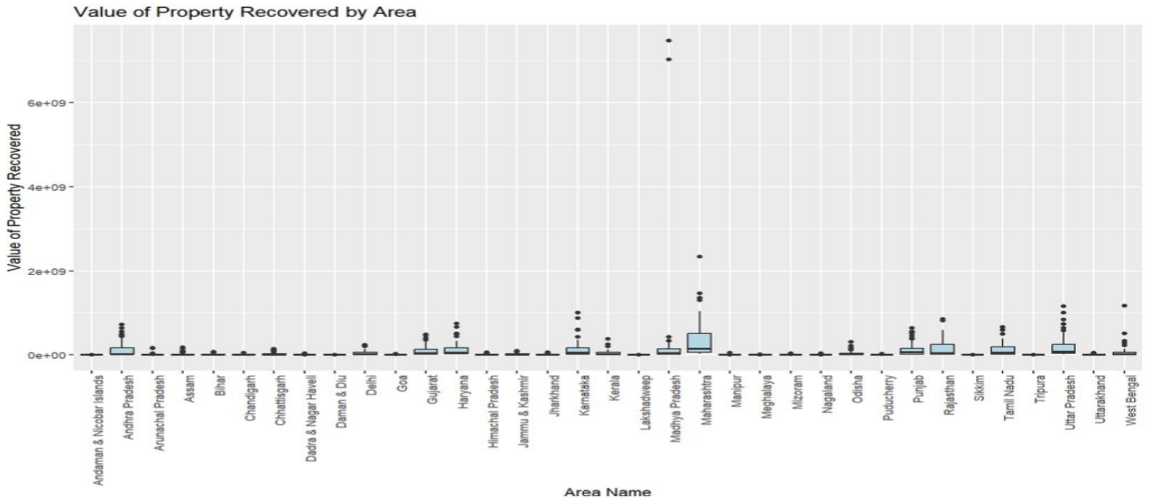


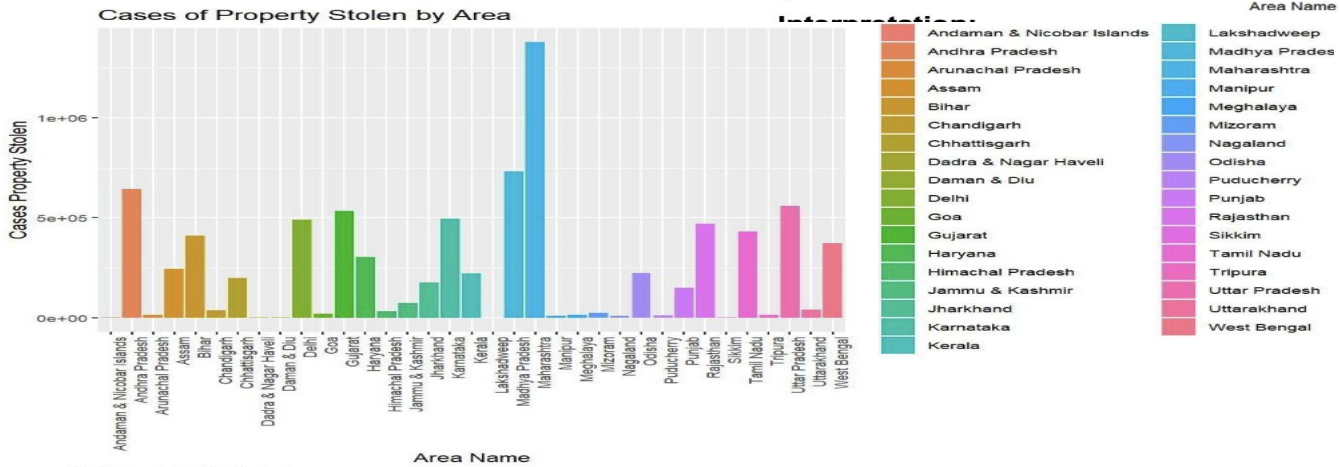
6th Stage	Negative	Positive	Total
IIA	837	17664	18501
IIB	2020	32597	34617
IIIA	3244	42560	45804
IIIB	718	2921	3639
IIIC	2643	17422	20065
Total	**9462**	**113164**	**122626**

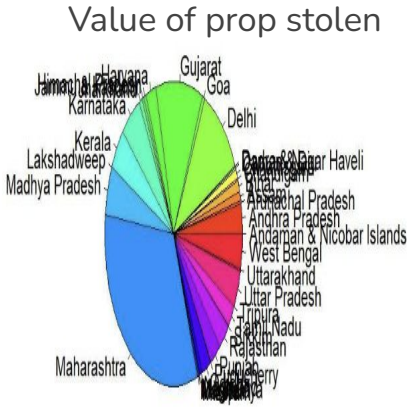


Exp 3(Breast Cancer Dataset): The dataset on breast cancer provides insights into demographic, hormonal, and racial factors affecting disease prevalence and severity, highlighting higher risk among married women, those with elevated estrogen or progesterone, and white women with larger tumor sizes and better healthcare access.

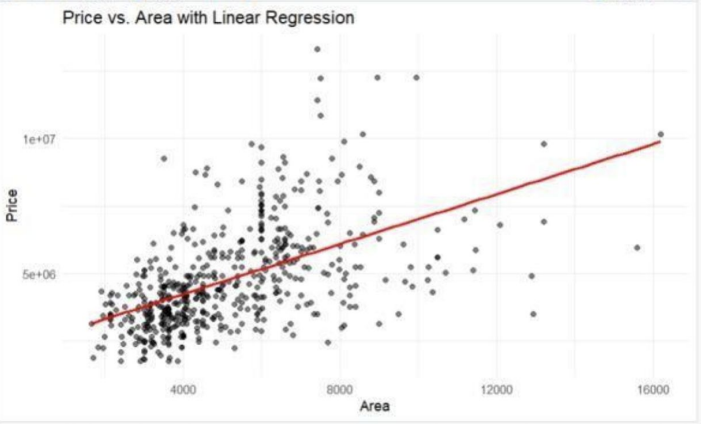


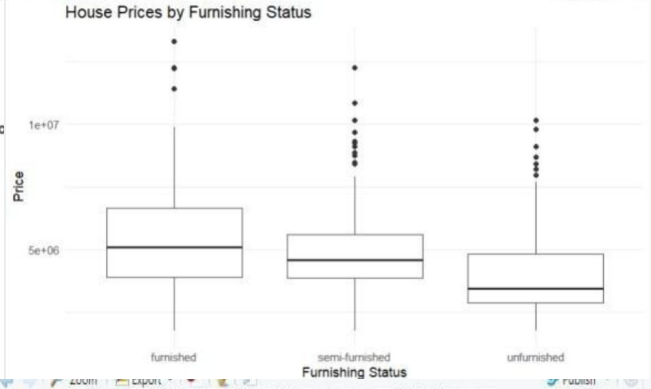


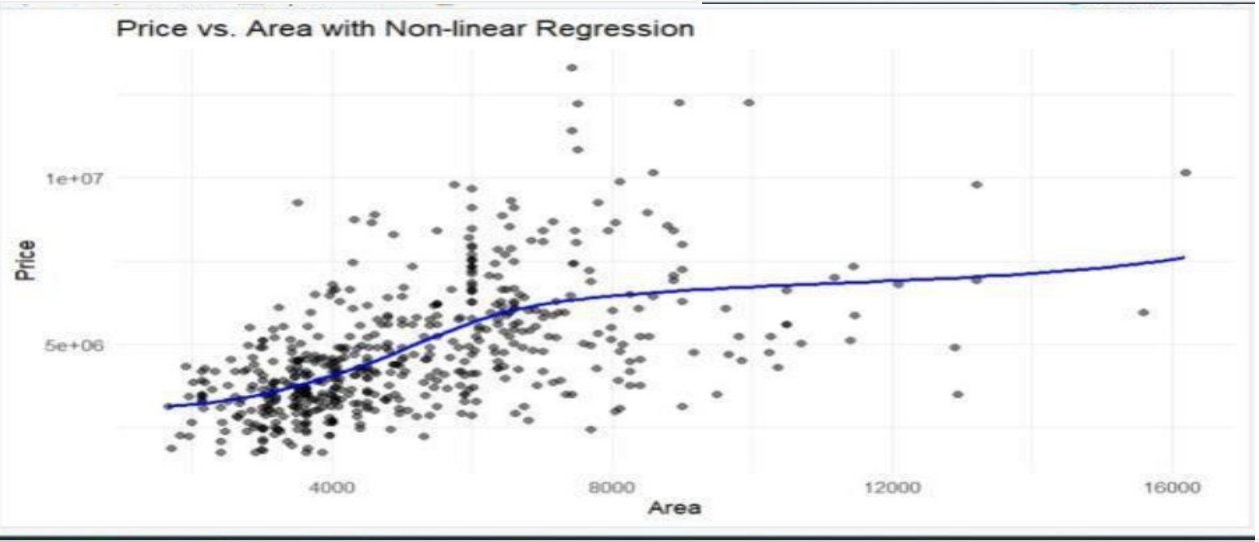


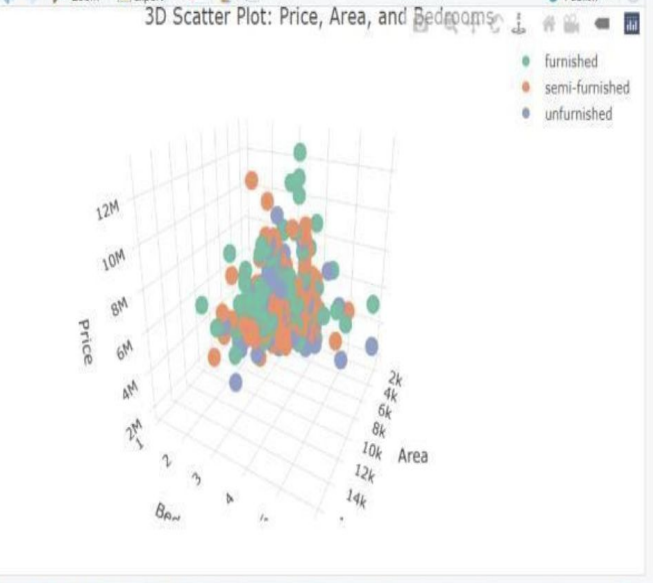


Exp 4(Crime Dataset): The analysis reveals stark regional disparities in property theft, with Maharashtra and Uttar Pradesh experiencing the highest crime rates, yet showing inconsistent recovery success across states, underscoring the need for targeted law enforcement and crime prevention strategies.

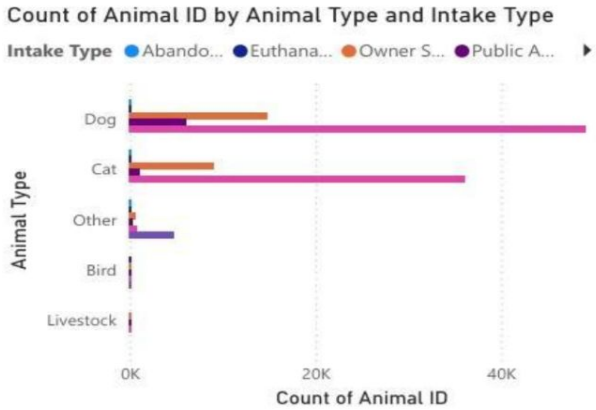


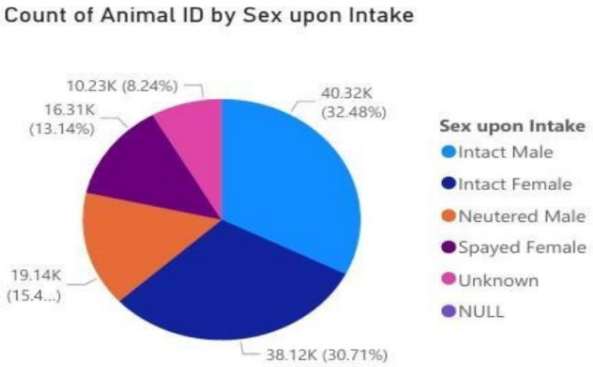


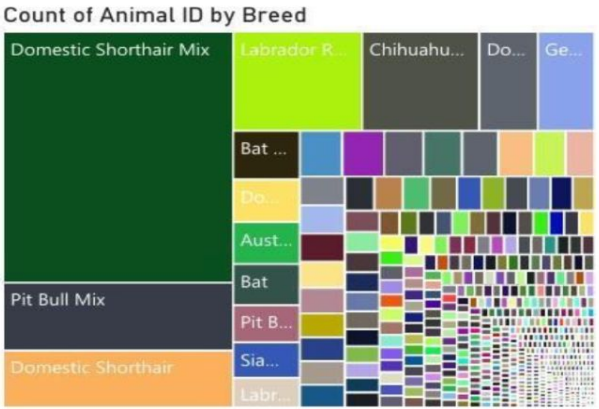


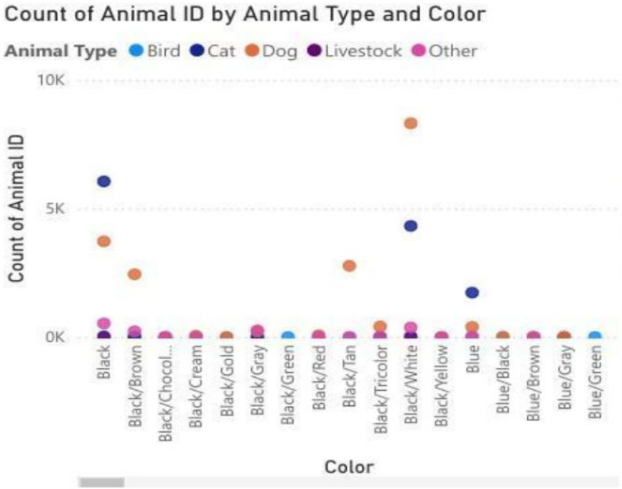


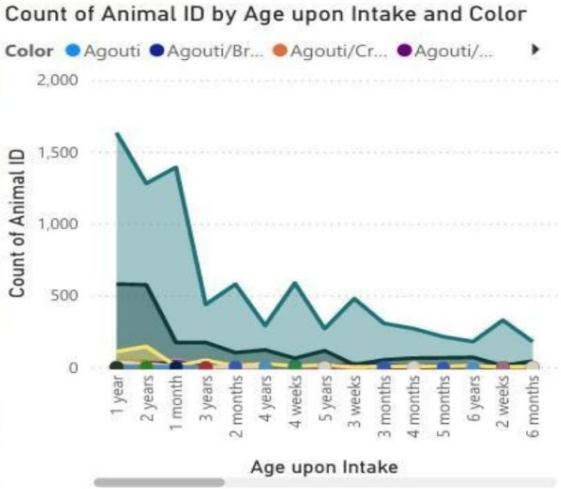
Exp 5(Housing Dataset): The housing data analysis reveals that house prices increase with area and bedroom count, but vary by furnishing status, with notable price distributions across these factors. Non-linear trends suggest diminishing returns in price for larger areas, highlighting complex influences on housing costs.





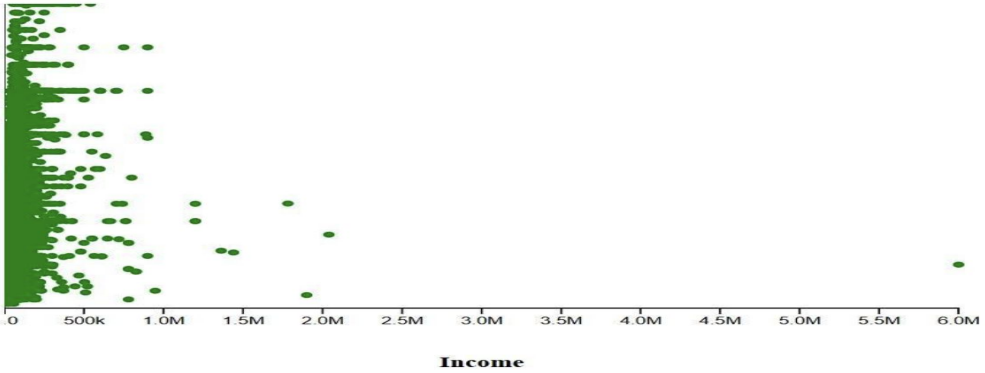




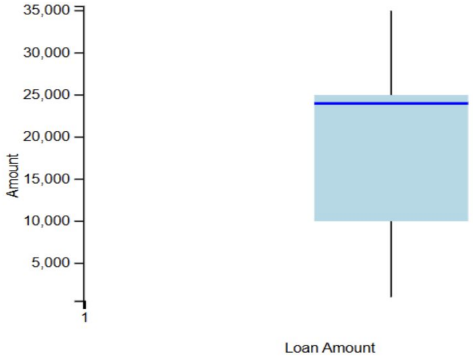


Exp 6(Animal Shelter Dataset): The analysis of animal intake data reveals that most animals admitted are strays, predominantly dogs and cats, with many being younger and spayed/neutered, suggesting prior ownership.

Scatter Plot: Income vs Loan Amount

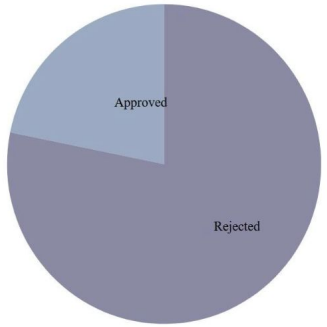


Box Plot (Loan Amount)

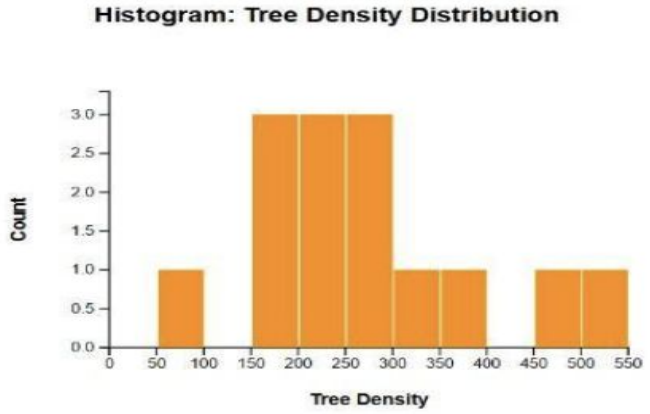


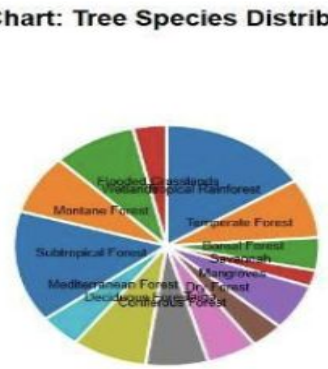
Bar Plot: Loan Amount by Loan Intent

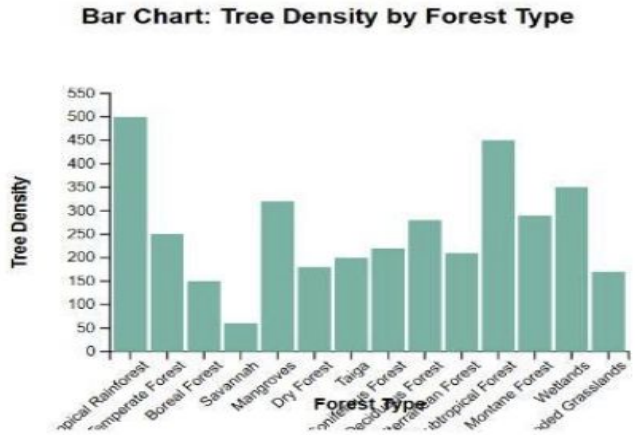
Pie Chart: Loan Status Distribution

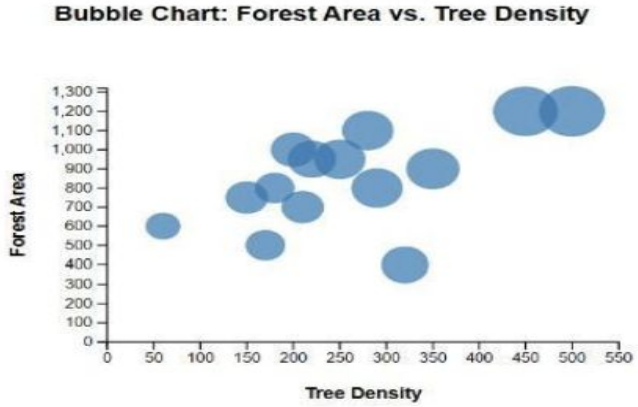


Exp 7(Health InsuranceDataset): The analysis of the loan dataset through various visualizations and hypothesis testing reveals insights into the relationships between borrower demographics, loan amounts, and interest rates, highlighting key trends and correlations that can inform financial decision-making.







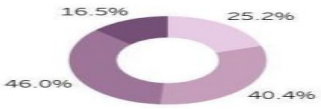


Exp 8(Forest Dataset): This visualization highlights key insights into forest ecosystems, revealing how tree density and species diversity vary across different forest types, while providing a deeper understanding of the factors that shape these natural environments.

Women Empowerment in STEM

STEM stands for Science, Technology, Engineering, and Mathematics. This dashboard is intended to make a social change by making the world aware of the backwardness of women in the STEM fields. The dashboard includes data up to 2015 on.

Women % in various field



Occupation
- Computer and mathematical
- Chemists and materials scie..
- Biological scientists
- Architecture and engineering

This pie chart shows about the percentage of women working in various STEM related fields. Here we can see

Women's representation remains low in computer/math and engineering fields (25.2% and 16.5% respectively), while biological science (46.0%) and chemistry/materials science (40.4%) show more balanced trends."

Trend of % Women graduated in

The % of women are graduating from stem majors by 2015

Computer science : 18
Engineering : 20.1

Over the years from 2000 to 2015, the average scores in Computer Sciences gradually declined from 28.0 to 18.0, while Engineering scores remained relatively stable, ranging from 20.5 to 20.1.

The % of women are in stem jobs by education in field Like ..

The % of women in health-related jobs with their master's education and Professional/Doctoı gree.

The % of Women in Health-related jobs with their Master's education is 21.67%

The % of Women in Health-related jobs with their Professional or Doctoral Degree is 12.20%

The % of Women are wor in

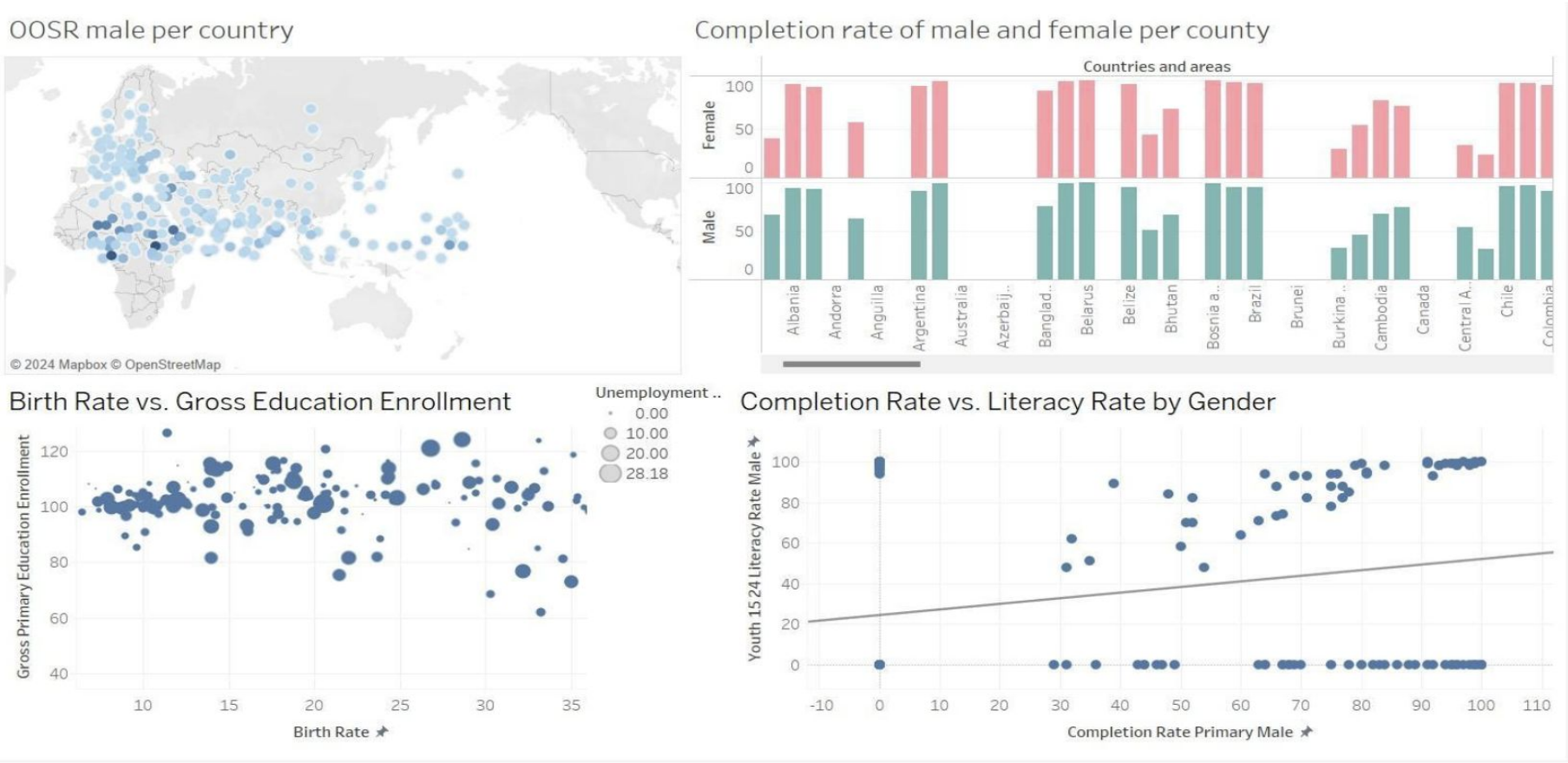
The % of women working in computers who majored in Computers is 25.50%

The % of women working in Engineering jobs who majored in engineering is 16.11%

Men Vs Momen % by Profession

Profession	Men (%)	Women (%)
Health professions maj..	61	69
Computer major worki..	53	38
Engineering major wor..	30	24
Physicalsciences major..	10	8

Exp 9(Women Empowerment Dataset): This analysis reveals the persistent gender gaps in STEM fields, highlighting both the progress made in certain disciplines and the ongoing challenges women face, particularly in computer science and engineering



Exp 10(World Education Dataset): This analysis reveals key insights into global education disparities, highlighting gender differences in completion rates, the complex relationship between birth rates and primary education enrollment, and the correlation between primary completion and youth literacy rates.