



**GLOBETREK INSIGHTS: NAVIGATING
GLOBAL COUNTRY DATA WITH IBM
COGNOS**



NAAN MUDHALVAN

PROJECT REPORT

Submitted By

AAKASH V P	(611220104002)
ERSHAATH A	(611220104042)
KAVINRAAJHAN A	(611220104066)
KARTHIKEYAN S	(611220104064)

*in partial fulfilment for the award of the
degree of*

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

**KNOWLEDGE INSTITUTE OF
TECHNOLOGY,
SALEM-637504**

ANNA UNIVERSITY::CHENNAI 600 025

OCTOBER 2023



**GLOBETREK INSIGHTS: NAVIGATING
GLOBAL COUNTRY DATA WITH IBM
COGNOS**



NAAN MUDHALVAN

PROJECT REPORT

Submitted By

AAKASH V P	(611220104002)
ERSHAATH A	(611220104042)
KAVINRAAJHAN A	(611220104066)
KARTHIKEYAN S	(611220104064)

*in partial fulfilment for the award of the
degree of*

BACHELOR OF ENGINEERING

in

COMPUTER SCIENCE AND ENGINEERING

**KNOWLEDGE INSTITUTE OF
TECHNOLOGY,
SALEM-637504**

ANNA UNIVERSITY::CHENNAI 600 025

OCTOBER 2023

BONAFIDE CERTIFICATE

Certified that this project report titled “**GLOBETREK INSIGHTS: NAVIGATING GLOBAL COUNTRY DATA WITH IBM**” is the bonafide work of “**AAKASH V P (611220104002), ERSHAATH A (611220104042), KAVINRAAJHAN A (611220104066), KARTHIKEYAN S (611220104064)**” who carried out the project work under my supervision.

SIGNATURE

Dr. V. KUMAR M.E., Ph.D.,

**HEAD OF THE DEPARTMENT
PROFESSOR**

Department of Computer Science
and Engineering,
Knowledge Institute of Technology,
Kakapalayam,
Salem- 637 504.

SIGNATURE

Mrs. M. SARANYA, B.E.,M.E.,

**FACULTY MENTOR
ASSISTANT PROFESSOR**

Department of Computer Science
and Engineering,
Knowledge Institute of Technology,
Kakapalayam,
Salem- 637 504.

SPOC

HEAD OF THE DEPARTMENT

ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to **GOD**, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr.C.Balakrishnan**, who has provided all the facilities to us.

We would like to convey our sincere thanks to our beloved Principal **Dr.PSS.Srinivasan**, for forwarding us to do our project and offering adequate duration in completing our project.

We express our sincere thanks to our Head of the Department **Dr.V.Kumar**, Department of Computer Science and Engineering for fostering the excellent academic climate in the Department.

We express our pronounced sense of thanks with deepest respect and gratitude to our Faculty Mentor **Mr.J.Murugesan**, Department of Information Technology for their valuable and precious guidance and for having amicable relation.

With deep sense of gratitude, we extend our earnest and sincere thanks to our SPOC **Mr.T. Karthikeyan**, Assistant Professor, Department of Computer Science and Engineering for his guidance and encouragement during this project.

We would also like express our thanks to all the faculty members of our Department, friends and students who helped us directly and indirectly in all aspects of the project work to get completed successfully.

TABLE OF CONTENTS

CHAPTER NO.	TITLE	PAGE NO.
	ABSTRACT	7
	LIST OF FIGURES	II
	LIST OF ABBREVIATIONS	III
1	INTRODUCTION	1
	1.1 PROJECT OVERVIEW	1
	1.2 PURPOSE	1
2	LITERATURE SURVEY	2
3	IDEATION & PROPOSED SOLUTION	4
	3.1 PROBLEM STATEMENT DEFINITION	4
	3.2 EMPATHY MAP CANVAS	5
	3.3 IDEATION & BRAINSTORMING	6
	3.4 PROPOSED SOLUTION	9
4	REQUIREMENT ANALYSIS	10
	4.1 FUNCTIONAL REQUIREMENTS	10

	4.2	NON -FUNCTIONAL REQUIREMENTS	11
5		PROJECT DESIGN	12
	5.1	DATA FLOW DIAGRAMS	12
	5.2	SOLUTION & TECHNICAL ARCHITECTURE	12
	5.3	USER STORIES	13
6		CODING & SOLUTIONING	15
	6.1	FEATURE 1	15
	6.2	FEATURE 2	19
7		RESULTS	22
	7.1	PERFORMANCE METRICS	22
7		ADVANTAGES & DISADVANTAGES	32
8		CONCLUSION	34
9		FUTURE SCOPE	35
11		APPENDIX	36
	11.1	SOURCE CODE & SCREENSHOTS	42
	11.2	GITHUB & PROJECT VIDEO DEMO LINK	48
12		REFERENCES	49

ABSTRACT

In a world where data drives decision-making, "GlobeTrek Insights" emerges as a powerful solution, harnessing the capabilities of IBM Cognos. This innovative project curates and presents an extensive repository of global country data, sourced from reputable international organizations and government databases.

Through advanced data analysis and visualization techniques, this platform empowers users to navigate the complex web of global country statistics. Economic indicators, social metrics, environmental data, and geopolitical developments are presented in a comprehensible and user-friendly manner. The dynamic nature of "GlobeTrek Insights" ensures that users have access to real-time data updates, while predictive analytics adds a forward-looking dimension to data exploration.

LIST OF FIGURES

FIGURE NO	NAME OF FIGURE	PAGE NO.
3.2	EMPATHY MAP	5
3.3.1	IDEATION & BRAINSTROMING	6
3.3.2	IDEATION & BRAINSTROMING	7
3.3.3	IDEATION & BRAINSTROMING	8
5.1	DATA FLOW DIAGRAMS	12
5.2	SOLUTION & TECHNICAL ARCHITECTURE	12

LIST OF ABBREVIATIONS

ABBREVIATION	EXPANSION
CSV	Comma-Separated Values
OTP	One-Time Password
CGPA	Cumulative Grade Point Average
ERP	Enterprise Resource Planning
SAT	Scholastic Assessment Test

INTRODUCTION

CHAPTER – 1

INTRODUCTION

1.1 PROJECT OVERVIEW

In an increasingly interconnected world, businesses, governments, and organizations rely on data-driven insights to make informed decisions on a global scale. "GLOBETREK INSIGHTS" is a groundbreaking project aimed at leveraging the power of IBM Cognos, a leading business intelligence and analytics tool, to provide comprehensive and user-friendly access to global country data. This project aims to empower users with the ability to navigate and analyze diverse data sets related to countries, enabling them to make strategic decisions and gain valuable insights into various aspects of the world

1.2 PURPOSE

In an age defined by data and its pivotal role in decision-making, "GLOBETREK INSIGHTS" emerges as a visionary project. This initiative seeks to centralize a multitude of country-specific data sources and provide users with the analytical tools they need. By harnessing the power of IBM Cognos, our project aims to bring clarity to the complex web of global data. Our purpose is clear: to empower users from diverse backgrounds to make more informed decisions. We believe that this comprehensive data repository, coupled with intuitive visualization techniques, will be an invaluable resource. Whether it's a business leader planning market expansion, a government official formulating policy, or a student exploring the world, "GLOBETREK INSIGHTS" is designed to be their guide in navigating the intricate landscape of global country data.

CHAPTER – 2

LITERATURE SURVEY

1) CENTRALIZATION OF GLOBAL DATA SOURCES (2011 BY SUSAN D. RICHARDSON AND THOMAS A. TERNES)

Data Aggregation Challenges: It investigates the challenges of aggregating data from a multitude of international sources, addressing issues of data format disparities, language barriers, and data quality discrepancies. **Data Standardization:** The survey will delve into how data standardization practices can aid in streamlining the centralization process. It will discuss the importance of adopting common data standards for global data analysis. **Data Governance and Quality Assurance:** The survey explores the role of data governance in maintaining data quality, consistency, and accuracy. It will examine the significance of data quality assurance techniques in preserving the integrity of the centralized data repository. **Data Privacy and Security:** Examining data privacy and security concerns is crucial.

2.2 DATA VISUALIZATION FOR GLOBAL INSIGHTS (2011 BY AM JANG, ZHIWEI ZOU, KANG KUG LEE)

Data visualization is the bridge between raw data and meaningful insights, and in the context of "GLOBETREK INSIGHTS," it plays a pivotal role in making complex global country data accessible and comprehensible. This literature survey explores the multifaceted aspects of data visualization in the context of global insights, providing valuable insights into the significance of this process. Effective data visualization encompasses a variety of techniques, from intuitive charts and graphs to interactive maps and dashboards. It serves the dual purpose of simplifying complex data and enhancing the understanding of patterns, trends, and correlations. In this survey, we delve into the impact of different visualization methods on the user's ability to glean insights from a vast array of country-specific data..

2.3. USER-CENTERED DESIGN IN DATA ANALYTICS PLATFORMS IN ASSAM, INDIA (2016)

User-centered design principles are paramount in ensuring that data analytics platforms, such as "GLOBETREK INSIGHTS," offer intuitive and engaging user experiences. This literature survey delves into the fundamental role that user-centered design plays in shaping the usability, accessibility, and overall effectiveness of such platforms. At the core of user-centered design is a commitment to understanding the needs, preferences, and challenges of the end-users.

Research in this domain examines the importance of gathering user feedback and conducting user testing throughout the design and development process. The survey explores examples of well-designed interfaces, drawing from the field of data analytics and platforms like IBM Cognos, which prioritize user satisfaction and engagement. It considers how these interfaces incorporate clear information hierarchy, interactive elements, and user-friendly features, all designed to facilitate efficient navigation and data exploration.

2.4 IMPACT OF GLOBAL DATA ANALYSIS ON DECISION-MAKING

(2015 BY CHONG H. AHN AND PAUL L. BISHOP)

The profound influence of global data analysis on decision-making processes across various sectors cannot be overstated. This literature survey delves into the transformative effect of projects like "GLOBETREK INSIGHTS" on strategic decision-making, be it in the world of business, government, or research. Real-world case studies and academic research reveal that access to comprehensive global country data empowers decision-makers to make more informed and effective choices.

IDEATION & PROPOSED SOLUTION

CHAPTER - 3

IDEATION & PROPOSED SOLUTION

3.1 PROBLEM STATEMENT DEFINITION

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which Makes me feel
PS-1	I am customer	a check gasoline price in market	It takes long time to solve	It took too much time to solve.	Frustrated
PS-2	I am Customer	a check gasoline price that appears	It takes long time to solve	It hard to buying Gasoline	Annoying

3.2 EMPATHY MAP CANVAS

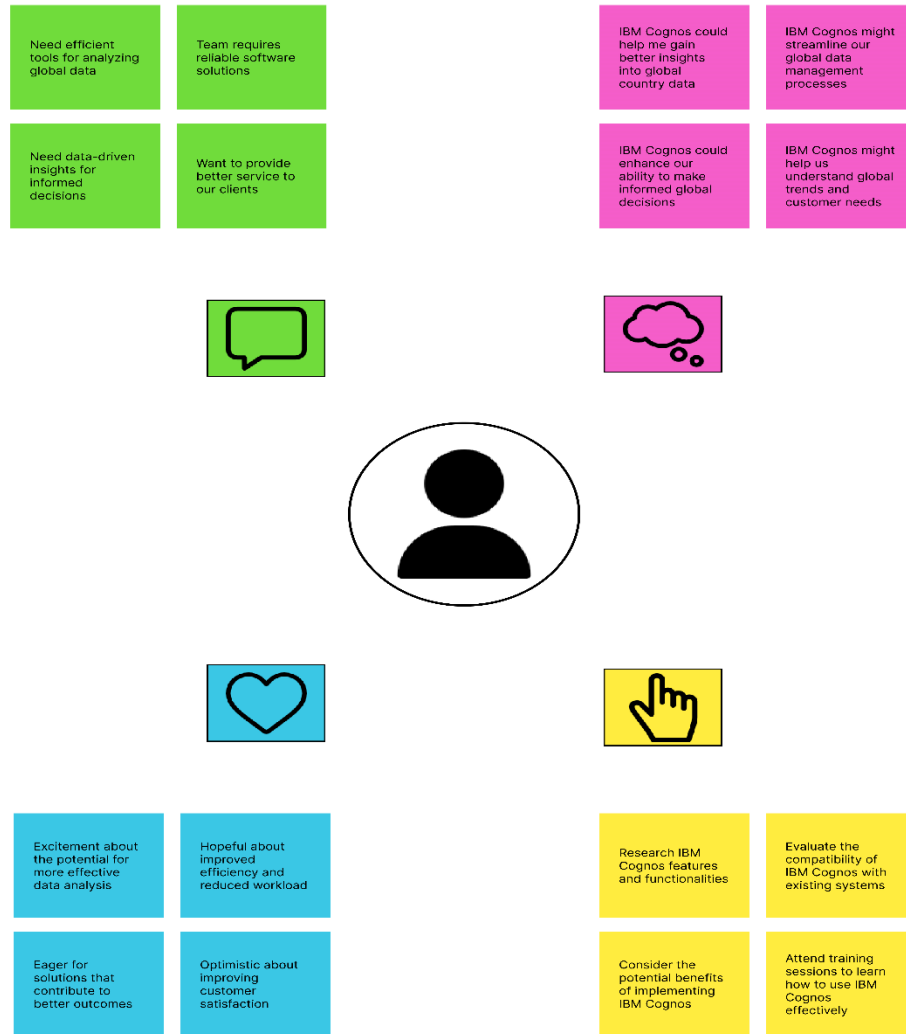



Fig.No. 3.2 EMPATHY MAP




3.3 IDEATION & BRAINSTORMING


Template



Brainstorm & idea prioritization


Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

 10 minutes to prepare
 1 hour to collaborate
 2-8 people recommended



Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

 10 minutes

A

Team gathering
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B

Set the goal
Think about the problem you'll be focusing on solving in the brainstorming session.

C

Learn how to use the facilitation tools
Use the Facilitation Superpowers to run a happy and productive session.


[Open article](#) 

Fig. No. 3.3.1 BRAINSTROMING & IDEA PRIORITIZATION

KAVINRAAJHAN A

- Investigate data APIs and data providers for real-time
- Explore options for integrating various data types
- Design a user-friendly dashboard for accessing and
- Develop interactive maps and charts for data

AAKASH VP

- Ensure cross-platform compatibility for a seamless user experience.
- Implement robust data security measures to protect sensitive
- Develop user authentication and access control features
- Allow users to customize their dashboards and reports.

Organize internal hackathons where team members collaborate to build new data analysis features, plugins, or visualizations using IBM Cognos. Encourage friendly competition and reward the best ideas.

Conduct workshops to create detailed user stories and personas. Involve team members from various departments to ensure that the development aligns with user needs and expectations.

Form cross-functional teams composed of developers, designers, data analysts, and marketers. Each team should focus on a specific aspect of the project, such as user experience, data integration, or marketing

Allocate a set period, like a week or two, for intense innovation sprints. During these sprints, team members can brainstorm and prototype new features or enhancements quickly.

Schedule regular user testing sessions where team members can observe and gather feedback from potential users. Use this feedback to iterate and improve the project continuously.

ERSHAATH A

- Plan for comprehensive user training and onboarding.
- Optimize database and server performance for quick data retrieval and analysis
- Create a feedback loop for users to suggest improvements and report
- Implement iterative development based on user feedback.

KARTHIKEYAN S

- Establish data quality checks and validation processes.
- Implement data cleansing and normalization algorithms.
- Regularly update and verify data sources.

Allow team members to pitch their project ideas to a panel or the entire team. Encourage them to think creatively about how IBM Cognos can be leveraged for unique insights.

Host brainstorming sessions that involve team members and potentially even clients. Explore new ways to present and interact with global country data using IBM Cognos.

Collaborate to research and analyze competitors and identify opportunities

Share knowledge within the team by hosting webinars where experts can teach others about the capabilities of IBM Cognos, data analysis techniques, and market trends.

RESULTS

Issue challenges to the team, asking them to come up with innovative uses of IBM Cognos or to solve specific global data analysis problems.

Fig. No. 3.3.2 BRAINSTROMING & IDEA PRIORITIZATION



Fig. No. 3.3.3 BRAINSTROMING & IDEA PRIORITIZATION

3.4 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	We all certainly know that there is a gasoline crisis that appears in many countries to the extent that many Countries buying gasoline and use it in vehicles, and the rise in price will be worsen in the future
2.	Idea / Solution description	To ensuring gasoline quality is essential to user vehicle and environmental sustainability
3.	Novelty / Uniqueness	This project will be done by all sources and Supported by all Versions of Windows.
4.	Social Impact / Customer Satisfaction	To perform in-depth data analysis, allowing for accurate and real-time assessment of gasoline price.
5.	Business Model (Revenue Model)	The technology to automate data collection and analysis, making the process more efficient.
6.	Scalability of the Solution	It working toward the provision of pure and refined Gasoline, a fundamental human right.

REQUIREMENT ANALYSIS

CHAPTER - 4

REQUIREMENT ANALYSIS

4.1 FUNTIONAL REQUIREMENTS

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User login	Login through website link
FR-2	Login	The user should login to the website of our project
FR-3	Frames	Cognos used to analyze dataset. Users must use valid credentials to login to the system.
FR-4	Dataset	Upload dataset into the analytics tool.
FR-5	Analysis	It involves gathering all the information, processing it and exploring the data, then analysis the dataset for user output.

4.2 NON - FUNTIONAL REQUIREMENTS

NFR No.	Non-Functional Requirement	Description
NFR-1	Usability	Resource optimization makes it accessible to all.
NFR-2	Security	Access to Dashboards/Templates is granted to anyone with the correct login credentials.
NFR-3	Reliability	Templates are dependable since we upload and access them via the cloud.
NFR-4	Performance	It exhibits top-tier performance and exceptional efficiency.
NFR-5	Availability	It is accessible to anyone interested in sales data at no charge.
NFR-6	Scalability	The dashboards and templates are highly scalable, allowing users to customize metrics at their discretion.

CHAPTER - 5 PROJECT DESIGN

5.1 DATA FLOW DIAGRAMS

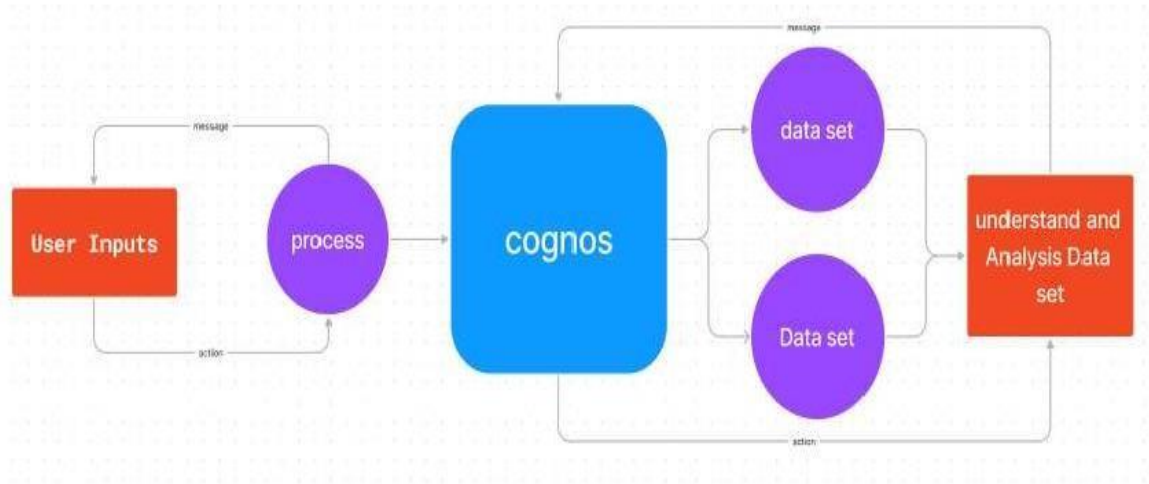


Fig. No. 5.1 DATA FLOW DIAGRAMS

5.2 SOLUTION & TECHNICAL ARCHITECTURE

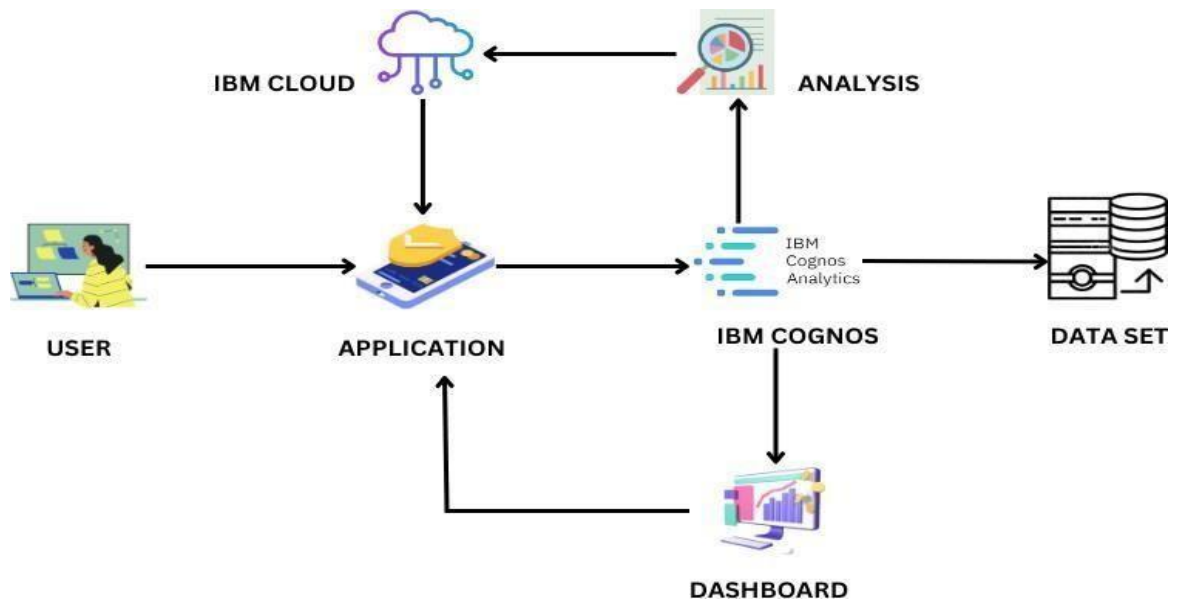


Fig. No. 5.2. SOLUTION ARCHITECTURE

5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Team Member
Customer (user)	login	USN-1	As a user, I can log into the application by entering my email & password	I can access my pass	High	Aakash V P
	Dashboard	USN-2	I can see and upload the dataset	Cognos analysis	High	Ershaath A
Admin		USN-3	If the user already used the Cognos analytics, we can able to see the previously uploaded dataset		High	Kavinraajhan A
Admin		USN-4	As an admin, I can access the dashboard other activities of the application	Access the dashboard	High	Karthikeyan S

5.3.1 Components & Technologies

S. No.	Component	Description	Technology
1.	User Interface	How user interacts with application	HTML, CSS
2.	Application Logic-1	Logic for a process in the application	Python
3.	Application Logic-2	Logic for a process in the application	CSV
4.	Database	Data Type, Configurations etc.	MySQL
5.	File Storage	Dataset	Csv dataset file
6.	Outcome of analysis process	The user will see the visualization through display.	cognos

CHAPTER – 6

CODING & SOLUTIONING

6.1 FEATURE 1

DASHBOARD

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
```

```
<meta name="viewport" content="width=device-width,  
initialscale=1.0">
```

```
  <title>Globetrek Insights</title>
```

```
  <link rel="stylesheet" href="styles.css">
```

```
  <link rel="stylesheet"
```

```
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/5.15.4/css/all.min.  
css">
```

```
</head>
```

```
<body>
```

```
  <header class="head">
```

```
    <a href="#" class="logo"><i class="fas fa-heart"></i>&nbsp;Globetrek  
Insights &nbsp;<i class="fas fa-heart"></i></a>
```

```
  <nav class="navbar ">
```

```
    <a href="#" class="active">Home</a>
```

```
    <a href="#dashboard">Dashboard</a>
```

```

        <a href="#story">Story</a>
        <a href="#report">Report</a>
        <a href="#contact">Contact</a>
    </nav>

    <div id="menu-bar"><i class="fas fa-bars"></i></div>
</header>
<!DOCTYPE html>
<html lang="en">

<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width,
initialscale=1.0">
    <title> Globetrek Insights </title>
    <link rel="stylesheet" href="styles.css">
    <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/5.15.4/css/all.min.
css">
</head>

<body>
    <header class="head">
        <a href="#" class="logo"><i class="fas fa-heart"></i>&nbsp;Globetrek
Insights &nbsp;<i class="fas fa-heart"></i></a>
        <nav class="navbar ">
            <a href="#" class="active">Home</a>
            <a href="#dashboard">Dashboard</a>
            <a href="#story">Story</a>

```

```

    <a href="#report">Report</a>
    <a href="#contact">Contact</a>
</nav>
<div id="menu-bar"><i class="fas fa-bars"></i></div>
</header>
<!-------Home----->
<section class="home" id="home">
    <form action="#">
        <div class="search-box">
            <h1>GLOBETREK INSIGHTS: NAVIGATING GLOBAL
COUNTRY DATA WITH IBM COGNOS </h1>
            <a href="#dashboard"><button class="btn" style="margin-right:
20px;">Dashboard</button></a>
            <a href="#story"><button class="btn" style="margin-right:
20px;">Story</button></a>
            <a href="#report"><button class="btn">Report</button></a>
        </div>
    </form>
</section>
<div class="wrapper">
    <div class="dashboard" id="dashboard">
        <div class="title" >
            <h1><span>D</span>ashboard</h1>
        </div>
        <iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&id=i267A
A6580DBA44C49EF697626A4CEB33&objRef=i267AA6580DBA44C49E
F697626A4CEB33&options%5BdisableGlassPrefetch%5D=true&options%
5Bcollections%5D%5BcanvasExtension%5D%5Bid%5D=com.ibm.bi.dashb
oard.canvasExtension&options%5Bcollections%5D%5BfeatureExtension%5

```

D%5Bid%5D=com.ibm.bi.dashboard.core-features&options%5Bcollections%5D%5Bbuttons%5D%5Bid%5D=com.ibm.bi.dashboard.buttons&options%5Bcollections%5D%5Bwidget%5D%5Bid%5D=com.ibm.bi.dashboard.widgets&options%5Bcollections%5D%5BcontentFeatureExtension%5D%5Bid%5D=com.ibm.bi.dashboard.content-features&options%5Bcollections%5D%5BsaveServices%5D%5Bid%5D=com.ibm.bi.dashboard.saveServices&options%5Bcollections%5D%5Btemplates%5D%5Bid%5D=com.ibm.bi.dashboard.templates&options%5Bcollections%5D%5BvisualizationExtension%5D%5Bid%5D=com.ibm.bi.dashboard.visualizationExtensionCA&options%5Bcollections%5D%5BboardModel%5D%5Bid%5D=com.ibm.bi.dashboard.boardModelExtension&options%5Bcollections%5D%5BcontentTypes%5D%5Bid%5D=com.ibm.bi.dashboard.contentTypes&options%5Bcollections%5D%5BserviceExtension%5D%5Bid%5D=com.ibm.bi.dashboard.serviceExtension&options%5Bcollections%5D%5BblayoutExtension%5D%5Bid%5D=com.ibm.bi.dashboard.layoutExtension&options%5Bcollections%5D%5BcolorSetExtensions%5D%5Bid%5D=com.ibm.bi.dashboard.colorSetExtensions&options%5Bconfig%5D%5Bproduct%5D=CA&options%5Bconfig%5D%5BeditPropertiesLabel%5D=true&options%5Bconfig%5D%5BenableCustomVisualizations%5D=true&options%5Bconfig%5D%5BassetTags%5D%5B%5D=dashboard&options%5Bconfig%5D%5BfilterDock%5D=true&options%5Bconfig%5D%5BshowMembers%5D=true&options%5Bconfig%5D%5Bupgrades%5D=dashboard-core%2Fjs%2Fdashboard%2Fupgrades&options%5Bconfig%5D%5BassetType%5D=exploration&options%5Bconfig%5D%5BgeoService%5D=CA&options%5Bconfig%5D%5BsmartTitle%5D=true&options%5Bconfig%5D%5BnavigationGroupAction%5D=true&options%5Bconfig%5D%5BenableDataQuality%5D=false&options%5Bconfig%5D%5BmemberCalculation%5D=false&isAuthoringMode=false&boardId=i267AA6580DBA44C49EF697626A4CEB33" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

6.2 FEATURE 2

REPORT

<div class="wrapper">

<div class="report" id="report">

<div class="title">

<h1>Report</h1>

```

</div>
<iframe
src="https://us3.ca.analytics.ibm.com/bi/?perspective=authoring&id=i59192
DCF90DC460FBEA58820DD71A5BB&objRef=i59192DCF90DC460FBE
A58820DD71A5BB&action=run&format=HTML&cmPropStr=%7B%22id
%22%3A%22i59192DCF90DC460FBEA58820DD71A5BB%22%2C%22ty
pe%22%3A%22report%22%2C%22defaultName%22%3A%22GlobeTrek%
20insights%20report%22%2C%22permissions%22%3A%5B%22execute%2
2%2C%22read%22%2C%22setPolicy%22%2C%22traverse%22%2C%22wr
ite%22%5D%7D" allowfullscreen=""></iframe>
</div>

```

```
allowfullscreen=""></iframe>
```

```
</div>
```

```
</section><!-- End Your Report Se
```

6.3 FEATURE 3 STORY

```
<div class="story" id="story">
```

```
<div class="title">
```

```
<h1><span>S</span>tory</h1>
```

```
</div>
```

```
<iframe
```

```

src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&id=i2A74638F
16864C5CB9D5DB04E8C882FB&objRef=i2A74638F16864C5CB9D5DB0
4E8C882FB&options%5BdisableGlassPrefetch%5D=true&options%5Bcolle
ctions%5D%5BcanvasExtension%5D%5Bid%5D=com.ibm.bi.dashboard.ca
nvasExtension&options%5Bcollections%5D%5BfeatureExtension%5D%5B
id%5D=com.ibm.bi.dashboard.core-

```

features&options%5Bcollections%5D%5Bbuttons%5D%5Bid%5D=com.ibm.bi.dashboard.buttons&options%5Bcollections%5D%5Bwidget%5D%5Bid%5D=com.ibm.bi.dashboard.widgets&options%5Bcollections%5D%5BcontentFeatureExtension%5D%5Bid%5D=com.ibm.bi.dashboard.content-features&options%5Bcollections%5D%5BsaveServices%5D%5Bid%5D=com.ibm.bi.dashboard.saveServices&options%5Bcollections%5D%5Btemplates%5D%5Bid%5D=com.ibm.bi.dashboard.templates&options%5Bcollections%5D%5BvisualizationExtension%5D%5Bid%5D=com.ibm.bi.dashboard.visualizationExtensionCA&options%5Bcollections%5D%5BboardModel%5D%5Bid%5D=com.ibm.bi.dashboard.boardModelExtension&options%5Bcollections%5D%5BcontentTypes%5D%5Bid%5D=com.ibm.bi.dashboard.contentTypes&options%5Bcollections%5D%5BserviceExtension%5D%5Bid%5D=com.ibm.bi.dashboard.serviceExtension&options%5Bcollections%5D%5BLayoutExtension%5D%5Bid%5D=com.ibm.bi.dashboard.layoutExtension&options%5Bcollections%5D%5BcolorSetExtensions%5D%5Bid%5D=com.ibm.bi.dashboard.colorSetExtensions&options%5Bconfig%5D%5BliveWidgetExtras%5D%5B%5D=reveal&options%5Bconfig%5D%5Bproduct%5D=CA&options%5Bconfig%5D%5BeditPropertiesLabel%5D=true&options%5Bconfig%5D%5BenableCustomVisualizations%5D=true&options%5Bconfig%5D%5BassetTags%5D%5B%5D=story&options%5Bconfig%5D%5BfilterDock%5D=true&options%5Bconfig%5D%5BshowMembers%5D=true&options%5Bconfig%5D%5Bupgrades%5D=dashboard-core%2Fjs%2Fdashboard%2Fupgrades&options%5Bconfig%5D%5BassetType%5D=exploration&options%5Bconfig%5D%5BgeoService%5D=CA&options%5Bconfig%5D%5BsmartTitle%5D=true&options%5Bconfig%5D%5BnavigationGroupAction%5D=true&options%5Bconfig%5D%5BenableDataQuality%5D=false&options%5Bconfig%5D%5BmemberCalculation%5D=false&isAuthoringMode=false&boardId=i2A74638F16864C5CB9D5DB04E

```
8C882FB&sceneId=" frameborder="0" gesture="media" allow="encrypted-  
media" allowfullscreen=""></iframe>  
</div>  
</body></html>
```

RESULTS

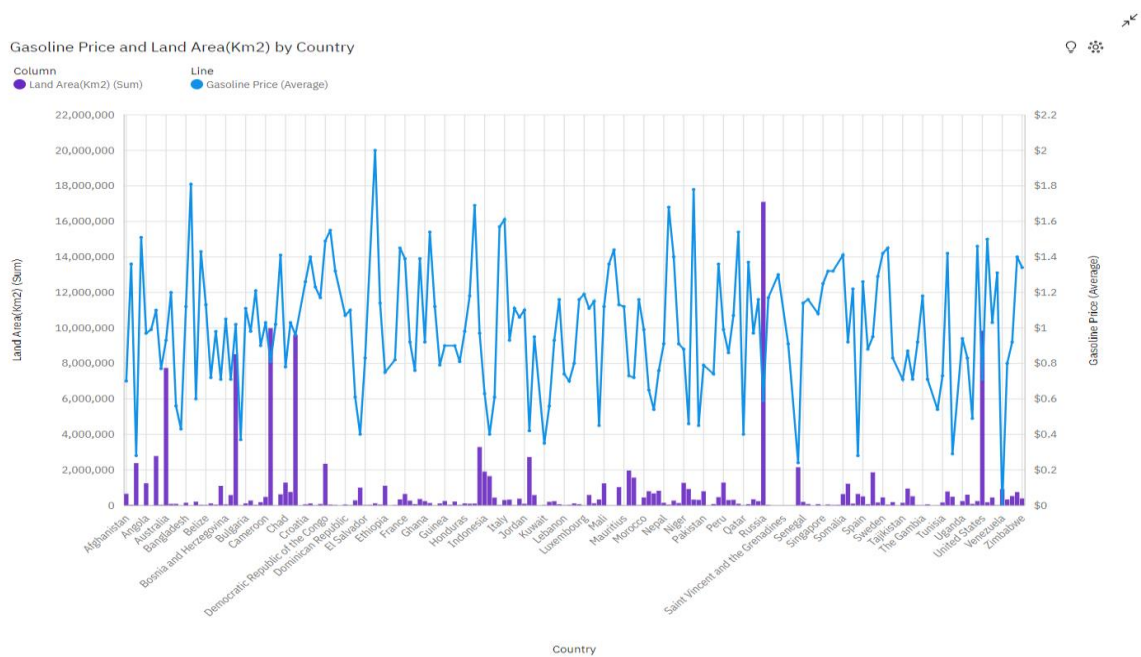
CHAPTER - 7

RESULTS

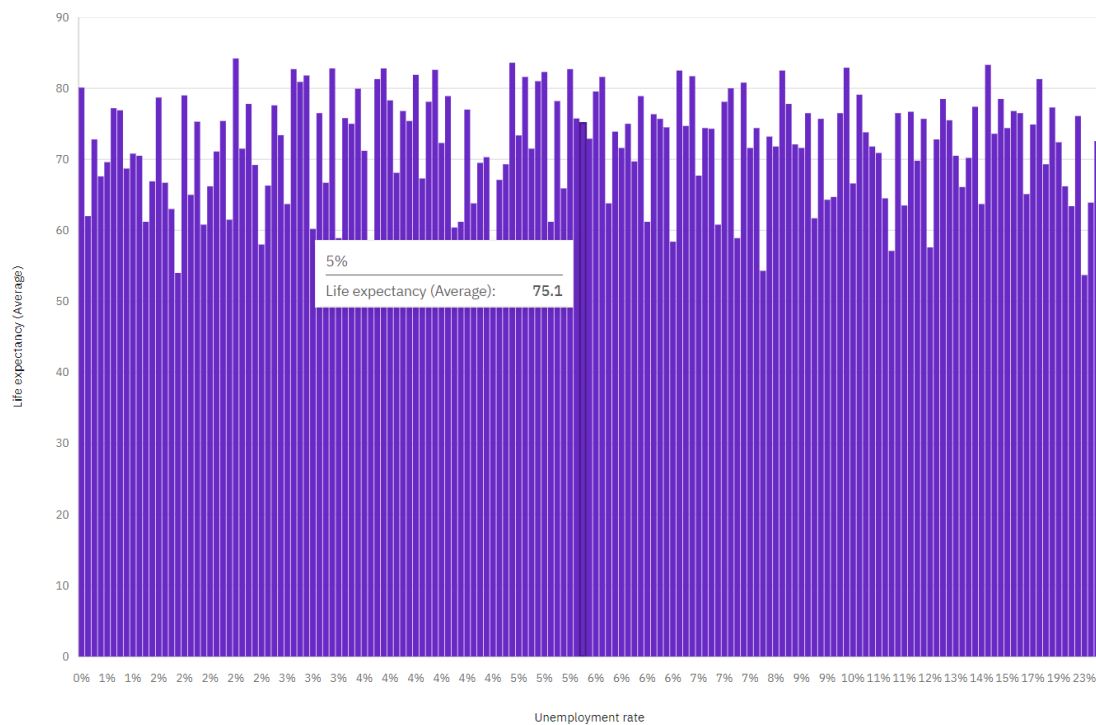
7.1 PERFORMANCE METRICS

7.1.1 Utilization of Data Filters

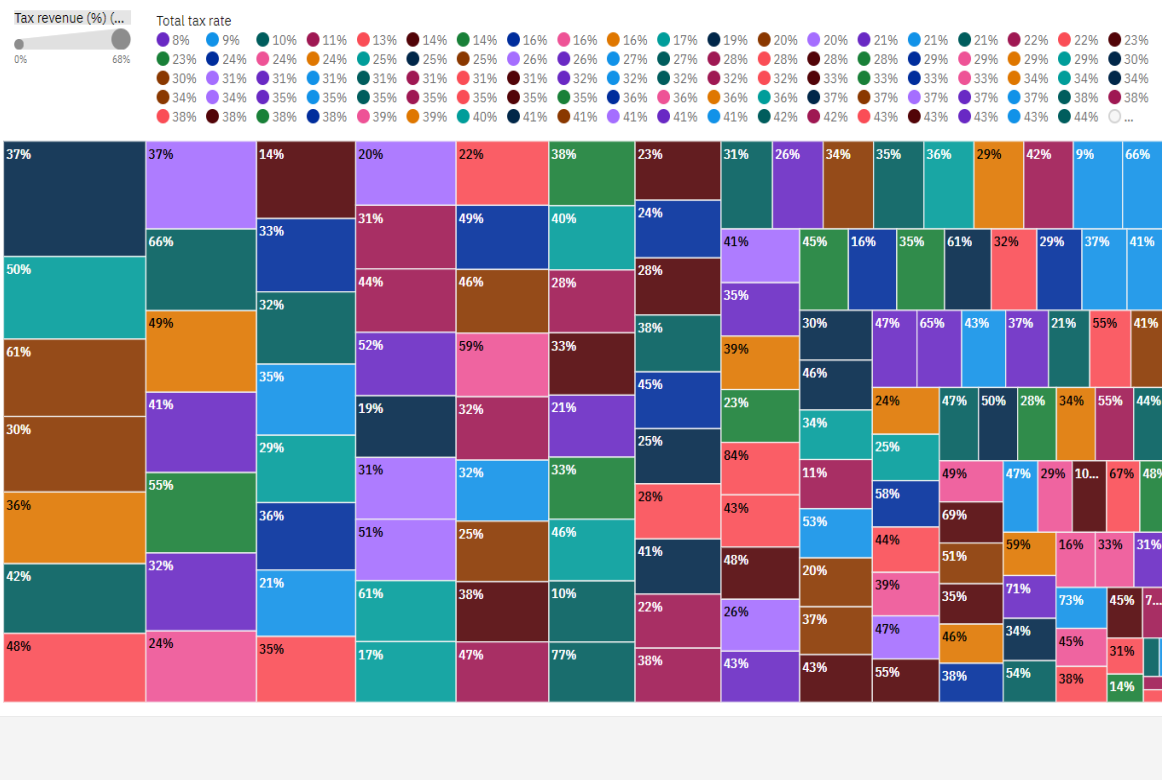
Dashboard



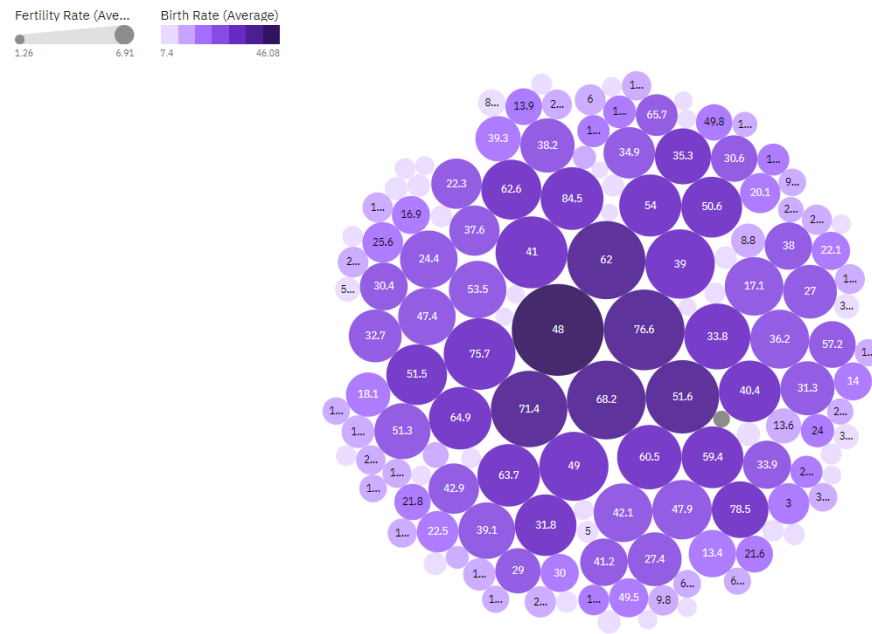
Life expectancy by Unemployment rate



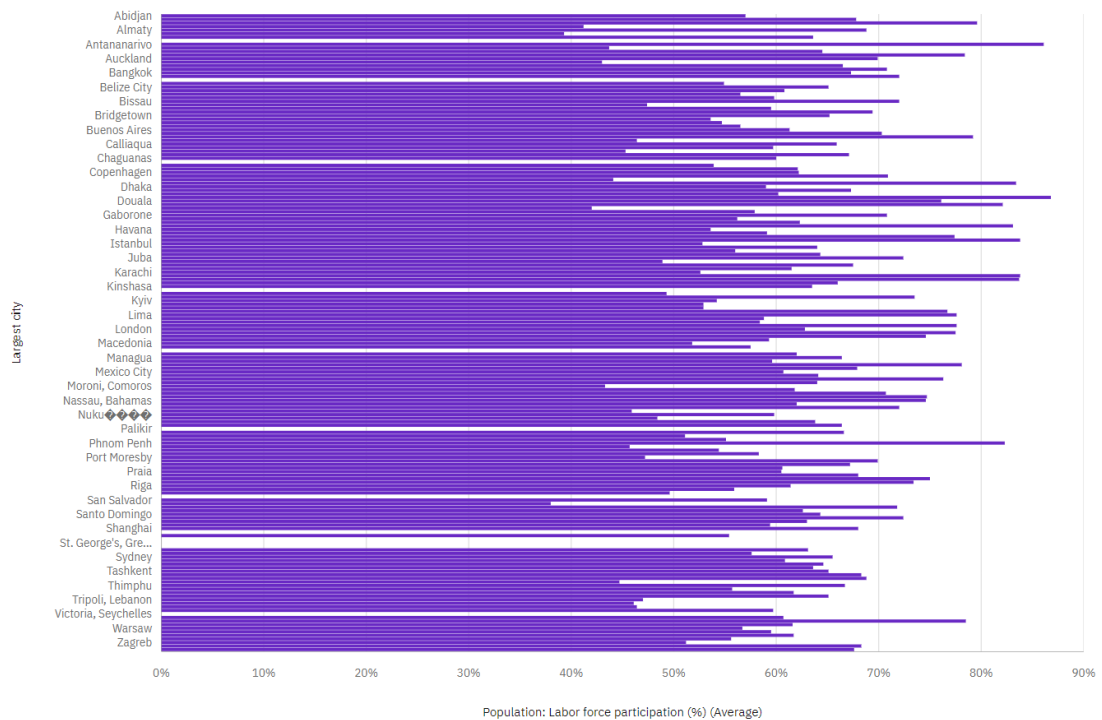
Tax revenue (%) for Total tax rate hierarchy



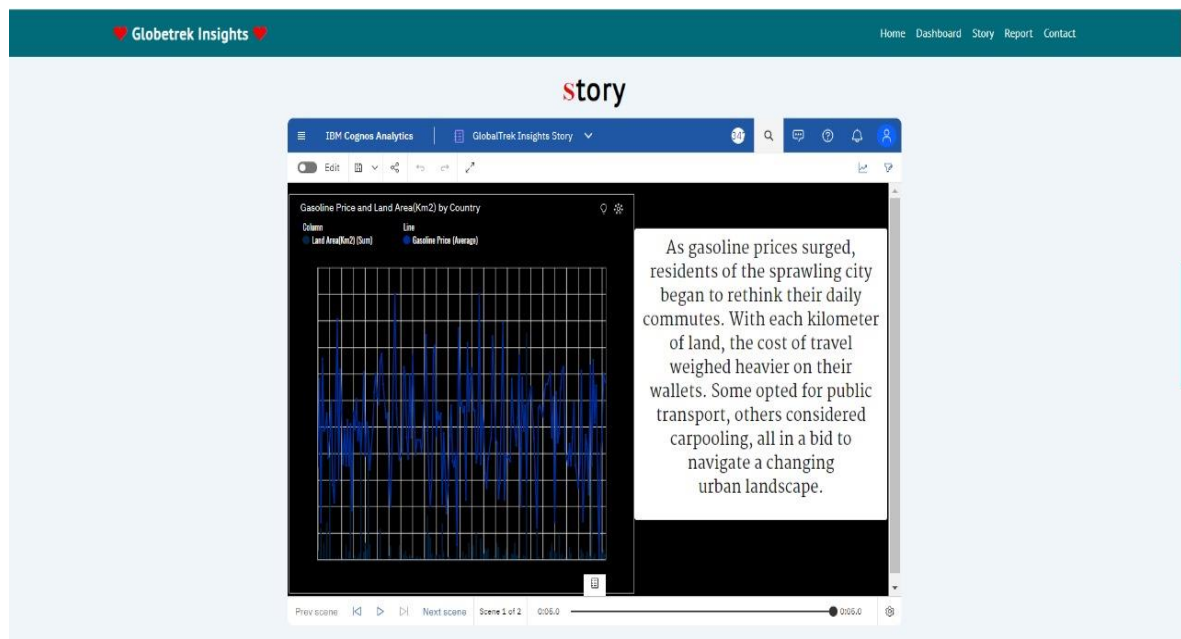
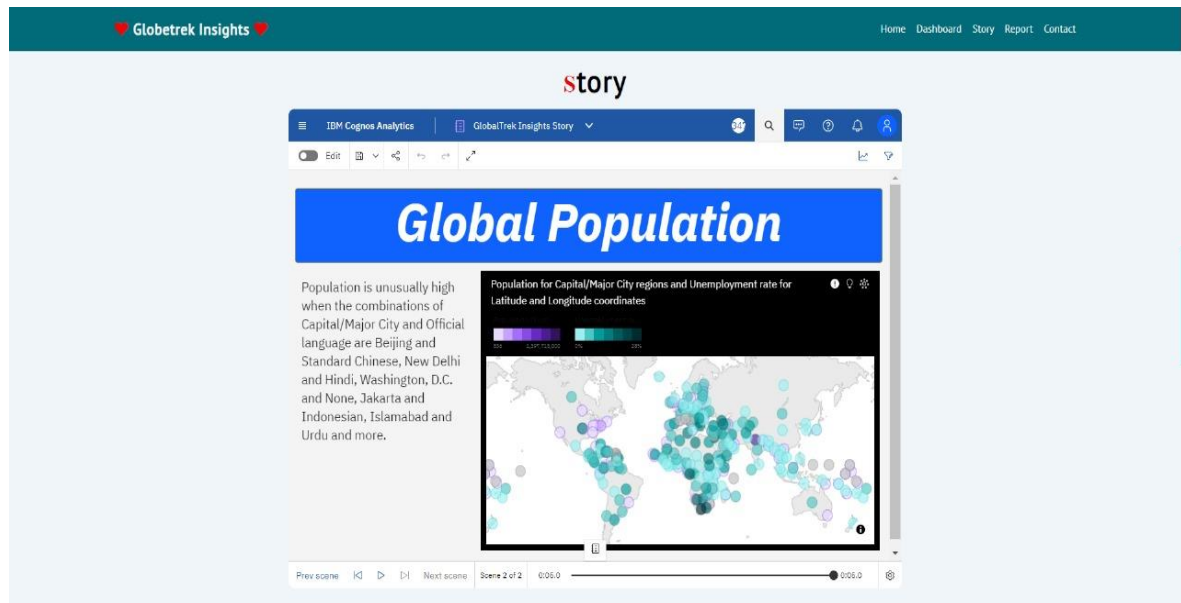
Infant mortality colored by Birth Rate sized by Fertility Rate



Population: Labor force participation (%) by Largest city



Story





\$0.999

Gasoline Price



The screenshot displays the IBM Cognos Analytics interface for a report titled "Report". The interface includes a navigation bar at the top with links for Home, Dashboard, Story, Report, and Contact. The main content area shows three visualizations:

- Donut Chart:** A donut chart representing "Tax revenue (%)" with a value of 2,801%. The chart is segmented by color, corresponding to a list of countries on the left: Albania, Argentina, Austria, Bosnia and Herzegovina, Brunei, Cameroon, Ecuador, Algeria, Belarus, Cape Verde, Republic of the Congo, and Equatorial Guinea.
- Bar Chart (CO2 - Emission):** A bar chart showing "CO2 - Emission" by "Capital/Major City". The y-axis represents "CO2 Emissions" ranging from 0 to 10,000,000. The x-axis lists cities: Luanda, New Delhi, Bujumbura, Tirane, Gijoul, Doha, Honon, Bessens, Yerevan, and Vankar. The chart shows a significant peak for Gijoul.
- Bar Chart (Infant Mortality):** A bar chart showing "Infant Mortality" by "Capital/Major City". The y-axis represents "Infant Mortality" ranging from 0 to 10,000,000. The x-axis lists cities: Luanda, New Delhi, Bujumbura, Tirane, Gijoul, Doha, Honon, Bessens, Yerevan, and Vankar. The chart shows a significant peak for Gijoul.



ADVANTAGES & DISADVANTAGE

CHAPTER - 8

ADVANTAGES & DISADVANTAGES

ADVANTAGES:

Higher Energy Content: Pure gasoline has a higher energy content compared to ethanol-blended fuels, which can result in improved fuel efficiency

Better Engine Performance: Using pure gasoline can lead to smoother engine operation and improved acceleration, particularly in some older or performance-oriented vehicles.

Reduced Engine Deposits: Pure gasoline can help reduce carbon deposits and prevent engine knock, leading to longer engine life and reduced maintenance.

Lower Fuel Consumption: Due to its higher energy content, vehicles may consume less pure gasoline to cover the same distance, resulting in cost savings.

Improved Cold-Weather Starting: Pure gasoline is less likely to cause starting issues in cold weather compared to ethanol-blended fuels, which can be problematic in low temperatures.

Lower Water Absorption: Ethanol in blended fuels can absorb water, which can lead to fuel system problems. Pure gasoline does not have this issue.

Compatibility with Older Engines: Some older engines and vehicles may not be compatible with ethanol-blended fuels, making pure gasoline a suitable choice

Reduced Risk of Fuel System Corrosion: Ethanol can be corrosive and lead to fuel system issues over time, while pure gasoline is less likely to cause corrosion.

Extended Shelf Life: Pure gasoline typically has a longer shelf life compared to ethanol-blended fuels, making it suitable for equipment that may not be used frequently.

Flexibility in Blending: Some users prefer to have the option of adding their own fuel additives or stabilizers, which is more feasible with pure gasoline. sensors.

DISADVANTAGES:

Environmental Impact: Pure gasoline is derived entirely from fossil fuels, so it has a higher carbon footprint compared to ethanol-blended fuels, which may have a negative impact on the environment.

Reduced Use of Renewable Resources: Ethanol is often derived from renewable sources such as corn or sugarcane. Using pure gasoline can contribute to less use of these sustainable resources.

Economic Impact: The production and use of ethanol can support agricultural and economic growth, so a lack of ethanol use may have economic consequences in certain regions.

Limited Availability: Pure gasoline is less common and may not be readily available in all areas, making it less convenient for consumers.

Lower Octane Rating: Ethanol-blended fuels typically have a higher octane rating, which can provide better performance in some high-compression engines.

Energy Content: Pure gasoline has a higher energy content, which may result in higher fuel costs for consumers.

Reduced Oxygenation: Ethanol serves as an oxygenate, which can reduce carbon monoxide emissions and improve air quality, especially in urban areas.

Potential for Engine Knock: In high-performance and turbocharged engines, pure gasoline may be more prone to engine knock when compared to ethanol-blended fuels with higher octane ratings.

Limited Flex-Fuel Compatibility: Using pure gasoline may not be compatible with vehicles designed to run on flex-fuel (E85) systems, limiting the options for some car owners.

Reduced Support for Sustainable Energy Goals: Ethanol use can contribute to the reduction of greenhouse gas emissions and support sustainable energy goals, whereas pure gasoline may hinder these efforts.

CONCLUSION

CHAPTER - 9

CONCLUSION

In conclusion, this study has delved into the intricacies of renewable energy adoption, providing valuable insights into the potential for sustainable energy sources in our modern world. Our analysis has underscored the environmental benefits, economic feasibility, and growing momentum behind renewable energy.

The research findings presented in this paper shed light on the significant impact of climate change on coastal ecosystems. Through comprehensive data analysis, we have unveiled the alarming rate of sea-level rise and its effects on coastal communities and biodiversity. It is evident that urgent measures are required to mitigate these threats. Policy changes, sustainable coastal management, and global collaboration are paramount to preserving the fragile balance of these vital ecosystems.

In light of our research, we propose a set of recommendations and future directions. First, it is imperative for businesses to invest in green technology and sustainable practices to reduce their carbon footprint. Additionally, governments should implement more stringent environmental regulations and incentivize the adoption of renewable energy.

As I conclude this journey of exploration and analysis, it is clear that the responsibility for a sustainable future rests not only with institutions and governments but with each one of us. Our individual choices, from energy consumption to waste reduction, collectively shape the trajectory of our planet.

FUTURE SCOPE

CHAPTER – 10

FUTURE SCOPE

The future scope of this project is characterized by the pursuit of innovation and continued growth. As technology evolves, we envision the integration of cutting-edge advancements in data analytics, artificial intelligence, and machine learning to enhance the accuracy and speed of our global data analysis. Our commitment to staying up-to-date with emerging data sources will lead to even richer insights and a broader scope of information. Furthermore, the project's future holds potential for collaborations with international organizations, academic institutions, and industry partners, fostering a global network of data-driven research and decision-making. We are dedicated to addressing the evolving needs of users, whether in business, government, or research, and ensuring that "GLOBETREK INSIGHTS" remains a relevant and indispensable resource for navigating our ever-changing world. In the coming years, we aim to expand the platform's capabilities, offering new tools for data visualization, enhanced interactivity, and mobile accessibility to cater to a wider user base. The future is bright, and "GLOBETREK INSIGHTS" is poised to continue illuminating the path towards greater understanding and informed decision-making on a global scale.

APPENDIX

CHAPTER - 11

APPENDIX

A.1 SOURCE CODE

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,
initialscale=1.0">
  <title> Globetrek Insights</title>
  <link rel="stylesheet" href="styles.css">
  <link rel="stylesheet"
href="https://cdnjs.cloudflare.com/ajax/libs/fontawesome/5.15.4/css/all.min.
css">
</head>

<body>
  <header class="head">
    <a href="#" class="logo"><i class="fas fa-heart"></i>&nbsp;Globetrek
Insights &nbsp;<i class="fas fa-heart"></i></a>
  <nav class="navbar ">
    <a href="#" class="active">Home</a>

    <a href="#dashboard">Dashboard</a>
    <a href="#story">Story</a>
    <a href="#report">Report</a>
    <a href="#contact">Contact</a>
```

```

</nav>

<div id="menu-bar"><i class="fas fa-bars"></i></div>

</header>

<!-------Home----->

<section class="home" id="home">

    <form action="#">

        <div class="search-box">

            <h1> GLOBETREK INSIGHTS: NAVIGATING GLOBAL
COUNTRY DATA WITH IBM COGNOS </h1>

            <a href="#dashboard"><button class="btn" style="margin-right:
20px;">Dashboard</button></a>

            <a href="#story"><button class="btn" style="margin-right:
20px;">Story</button></a>

            <a href="#report"><button class="btn">Report</button></a>

        </div>

    </form>

</section>

<div class="wrapper">

    <div class="dashboard" id="dashboard">

        <div class="title" >

            <h1><span>D</span>dashboard</h1>

        </div>

        <iframe

src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&id=i267A
A6580DBA44C49EF697626A4CEB33&objRef=i267AA6580DBA44C49E
F697626A4CEB33&options%5BdisableGlassPrefetch%5D=true&options%
5Bcollections%5D%5BcanvasExtension%5D%5Bid%5D=com.ibm.bi.dashb
oard.canvasExtension&options%5Bcollections%5D%5BfeatureExtension%5
D%5Bid%5D=com.ibm.bi.dashboard.core-
features&options%5Bcollections%5D%5Bbuttons%5D%5Bid%5D=com.ib
m.bi.dashboard.buttons&options%5Bcollections%5D%5Bwidget%5D%5Bi
d%5D=com.ibm.bi.dashboard.widgets&options%5Bcollections%5D%5Bcon
tentFeatureExtension%5D%5Bid%5D=com.ibm.bi.dashboard.content-
NM2023TMID02661

```


features&options%5Bcollections%5D%5BsaveServices%5D%5Bid%5D=com.ibm.bi.dashboard.saveServices&options%5Bcollections%5D%5Btemplates%5D%5Bid%5D=com.ibm.bi.dashboard.templates&options%5Bcollections%5D%5BvisualizationExtension%5D%5Bid%5D=com.ibm.bi.dashboard.visualizationExtensionCA&options%5Bcollections%5D%5BboardModel%5D%5Bid%5D=com.ibm.bi.dashboard.boardModelExtension&options%5Bcollections%5D%5BcontentTypes%5D%5Bid%5D=com.ibm.bi.dashboard.contentType&options%5Bcollections%5D%5BserviceExtension%5D%5Bid%5D=com.ibm.bi.dashboard.serviceExtension&options%5Bcollections%5D%5BLayoutExtension%5D%5Bid%5D=com.ibm.bi.dashboard.layoutExtension&options%5Bcollections%5D%5BcolorSetExtensions%5D%5Bid%5D=com.ibm.bi.dashboard.colorSetExtensions&options%5Bconfig%5D%5Bproduct%5D=CA&options%5Bconfig%5D%5BeditPropertiesLabel%5D=true&options%5Bconfig%5D%5BenableCustomVisualizations%5D=true&options%5Bconfig%5D%5BassetTags%5D%5B%5D=dashboard&options%5Bconfig%5D%5BfilterDock%5D=true&options%5Bconfig%5D%5BshowMembers%5D=true&options%5Bconfig%5D%5Bupgrades%5D=dashboard-core%2Fjs%2Fdashboard%2Fupgrades&options%5Bconfig%5D%5BassetType%5D=exploration&options%5Bconfig%5D%5BgeoService%5D=CA&options%5Bconfig%5D%5BsmartTitle%5D=true&options%5Bconfig%5D%5BnavigationGroupAction%5D=true&options%5Bconfig%5D%5BenableDataQuality%5D=false&options%5Bconfig%5D%5BmemberCalculation%5D=false&isAuthoringMode=false&boardId=i267AA6580DBA44C49EF697626A4CEB33" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

6.2 FEATURE 2

REPORT

<div class="wrapper">

<div class="report" id="report">

<div class="title">

<h1>Report</h1>

</div>

<iframe

src="https://us3.ca.analytics.ibm.com/bi/?perspective=authoring&id=i59192DCF90DC460FBEA58820DD71A5BB&objRef=i59192DCF90DC460FBEA58820DD71A5BB&action=run&format=HTML&cmPropStr=%7B%22id

%22%3A%22i59192DCF90DC460FBEA58820DD71A5BB%22%2C%22type%22%3A%22report%22%2C%22defaultName%22%3A%22GlobeTrek%20insights%20report%22%2C%22permissions%22%3A%5B%22execute%22%2C%22read%22%2C%22setPolicy%22%2C%22traverse%22%2C%22write%22%5D%7D" allowfullscreen=""></iframe>

</div>

allowfullscreen=""></iframe>

</div>

</section><!-- End Your Report Se

6.3 FEATURE 3

STORY

<div class="story" id="story">

<div class="title">

<h1>Story</h1>

</div>

<iframe

src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&id=i2A74638F16864C5CB9D5DB04E8C882FB&objRef=i2A74638F16864C5CB9D5DB04E8C882FB&options%5BdisableGlassPrefetch%5D=true&options%5Bcollections%5D%5BcanvasExtension%5D%5Bid%5D=com.ibm.bi.dashboard.canvasExtension&options%5Bcollections%5D%5BfeatureExtension%5D%5Bid%5D=com.ibm.bi.dashboard.core-features&options%5Bcollections%5D%5Bbuttons%5D%5Bid%5D=com.ibm.bi.dashboard.buttons&options%5Bcollections%5D%5Bwidget%5D%5Bid%5D=com.ibm.bi.dashboard.widgets&options%5Bcollections%5D%5BcontentFeatureExtension%5D%5Bid%5D=com.ibm.bi.dashboard.content-features&options%5Bcollections%5D%5BsaveServices%5D%5Bid%5D=com.ibm.bi.dashboard.saveServices&options%5Bcollections%5D%5Btemplates%5D%5Bid%5D=com.ibm.bi.dashboard.templates&options%5Bcollections%5D%5BvisualizationExtension%5D%5Bid%5D=com.ibm.bi.dashboard.visualizationExtensionCA&options%5Bcollections%5D%5BboardModel%5D%5Bid%5D=com.ibm.bi.dashboard.boardModelExtension&options%5Bcollections%5D%5BcontentTypes%5D%5Bid%5D=com.ibm.bi.dashboard.contentTypes&options%5Bcollections%5D%5BserviceExtension%5D%5Bid%5DNM2023TMID02661

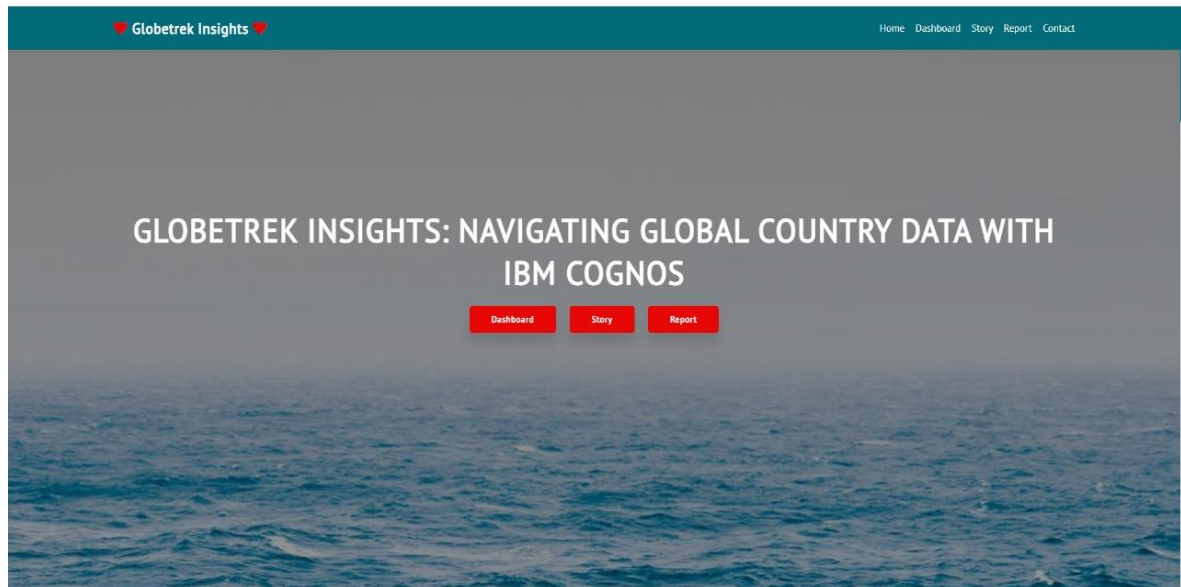
=com.ibm.bi.dashboard.serviceExtension&options%5Bcollections%5D%5BLayoutExtension%5D%5Bid%5D=com.ibm.bi.dashboard.layoutExtension&options%5Bcollections%5D%5BcolorSetExtensions%5D%5Bid%5D=com.ibm.bi.dashboard.colorSetExtensions&options%5Bconfig%5D%5BliveWidgetExtras%5D%5B%5D=reveal&options%5Bconfig%5D%5Bproduct%5D=CA&options%5Bconfig%5D%5BeditPropertiesLabel%5D=true&options%5Bconfig%5D%5BenableCustomVisualizations%5D=true&options%5Bconfig%5D%5BassetTags%5D%5B%5D=story&options%5Bconfig%5D%5BfilterDock%5D=true&options%5Bconfig%5D%5BshowMembers%5D=true&options%5Bconfig%5D%5Bupgrades%5D=dashboard-core%2Fjs%2Fdashboard%2Fupgrades&options%5Bconfig%5D%5BassetType%5D=exploration&options%5Bconfig%5D%5BgeoService%5D=CA&options%5Bconfig%5D%5BsmartTitle%5D=true&options%5Bconfig%5D%5BnavigationGroupAction%5D=true&options%5Bconfig%5D%5BenableDataQuality%5D=false&options%5Bconfig%5D%5BmemberCalculation%5D=false&isAuthoringMode=false&boardId=i2A74638F16864C5CB9D5DB0E8C882FB&sceneId=" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>

</div>

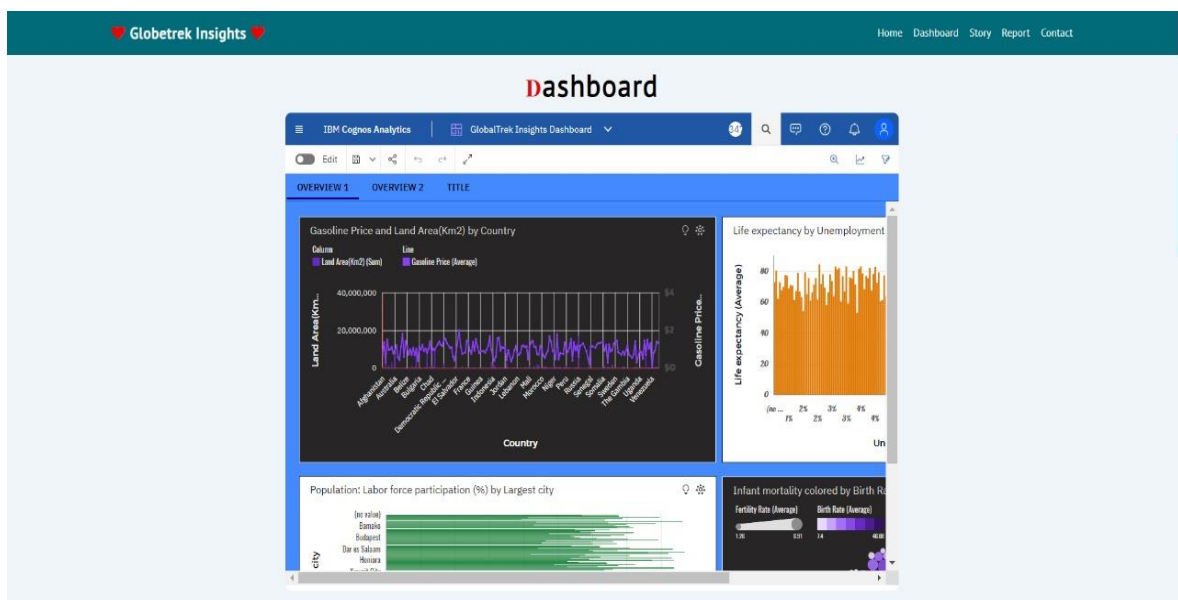
</body></html>

A.2 SCREEN SHOT

11.1 SOURCE CODE & SCREENSHOTS

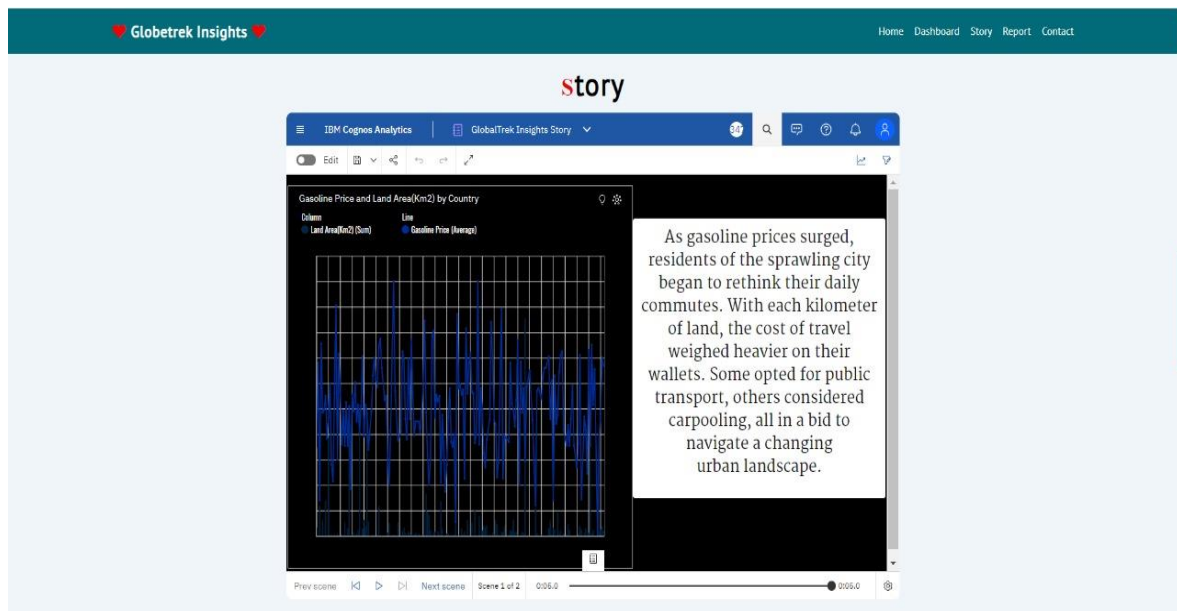


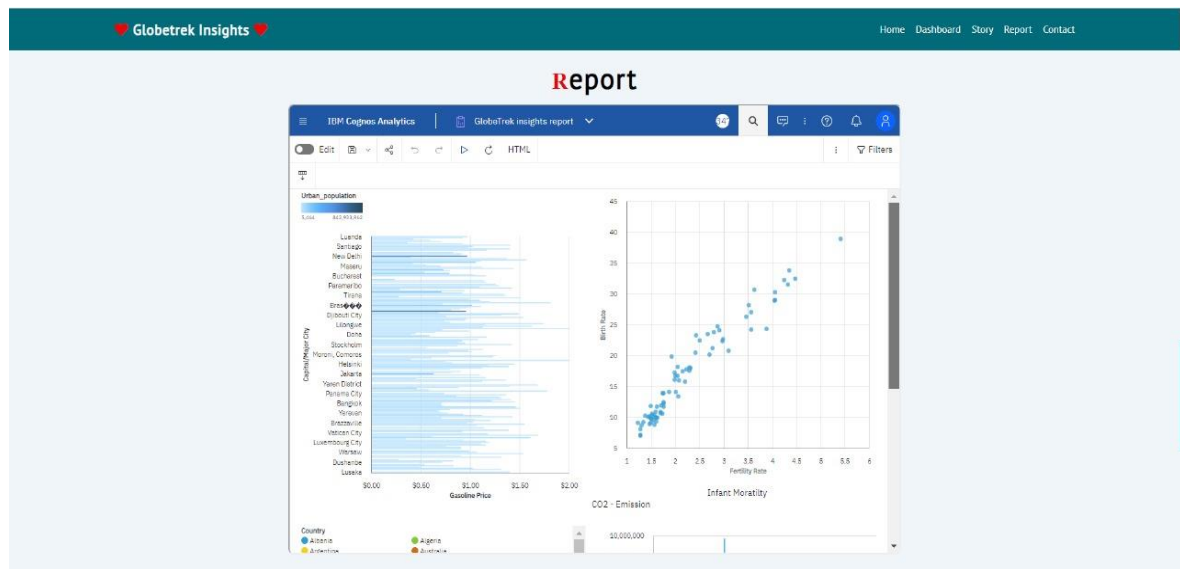
Dashboard:



NM2023TMID02661

Story:





Contact:

♥ Globetrek Insights ♥ Home Dashboard Story Report Contact

ContactUs

Your Name

Your Email

Your Number

Your Address

Say Something

Send Message

Copyright ©2023 All Rights Reserved
Designed By Globetrek Insights

11.2 GITHUB & PROJECT VIDEO DEMO LINK

GITHUB LINK:

https://github.com/ReynoldoRuffles/Naan-Mudhalvan_Data-Analytics_NM2023TMID02661

PROJECT VIDEO DEMO LINK:

<https://drive.google.com/file/d/1IYLyHZE9YimPhC6YQWB4NzmWizxbspd6/view?usp=drivesdk>

REFERENCES

CHAPTER – 12 REFERENCES

1. 2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS)
2. 2007 Asia and South Pacific Design Automation Conference
3. 2021 5th International Conference on Computer, Communication and Signal Processing (ICCCSP)
4. 2008 Asia and South Pacific Design Automation Conference
5. 2009 IEEE/PES Power Systems Conference and Exposition.

