



1. INTRODUCTION

1.1. Overview

Sustainable Development Goals (SDGs), are an urgent need of all the countries. A strong agreement and partnerships are required that lead to **Vasudhaiva Kutumbakam** (The World Is One Family) [1]. Seventeen SDGs recognize that ending poverty and other deprivations must go together with proper planning that enhance health and education, reduce inequality, and fortify economic growth, alongside tackling climate change preserving our oceans and forests [2]. In this regard, the first step is creating awareness among people regarding SDGs and their current progress and scenario. The main objective of this project is to develop visualizations on various SDGs based on current data using IBM Cognos, a well equipped platform to create information enriched dashboards, stories and reports that create an impact on public understanding of the significance of SDGs.

1.2. Purpose

To inculcate awareness in the society regarding sustainable Development Goals(SDGs) by creating a dashboard and story with crucial details of progress so far made by different countries in various SDGs

2. LITERATURE SURVEY

2.1. Existing problem

People are unaware regarding SDGs and their importance in context to peace and prosperity of life on earth, today and in future.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future.

Existing approaches or method to solve this problem [2]

- It has taken decades of work from developing as well as developed countries to work hard to show progress with respect to SDGs. Few of the significant steps are enlisted below:
- At Brazil (1992) in the Earth Summit, more than 178 countries adopted a plan (Agenda 21) of action to achieve sustainable development through global partnerships to improve quality of human life and environment protection.
- At the Millennium Summit in the year 2000, at New York, Member states adopted Millennium Development goals to minimize extreme poverty within 15 years.
- In 2002, at the World Summit held in South Africa, emphasis was given on Plan and Implementation towards poverty eradication, based on Agenda 21 and multilateral partnerships.
- At the UN conference held in 2012, the member states adopted, “The Future We Want” document which discussed measures for the

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development of SDGs. Also in 2013, a 30-member group was formed to come up with a proposal on SDGs.

- In 2015, the 2030 Agenda for Sustainable Development with 17 SDGs was adopted. 2015 was a year that focused on multilateralism and international policy with several crucial agreements.
- Now, the annual High-level Political Forum on Sustainable Development serves as the central UN platform for the follow-up and review of the SDGs.

2.2. Proposed solution:

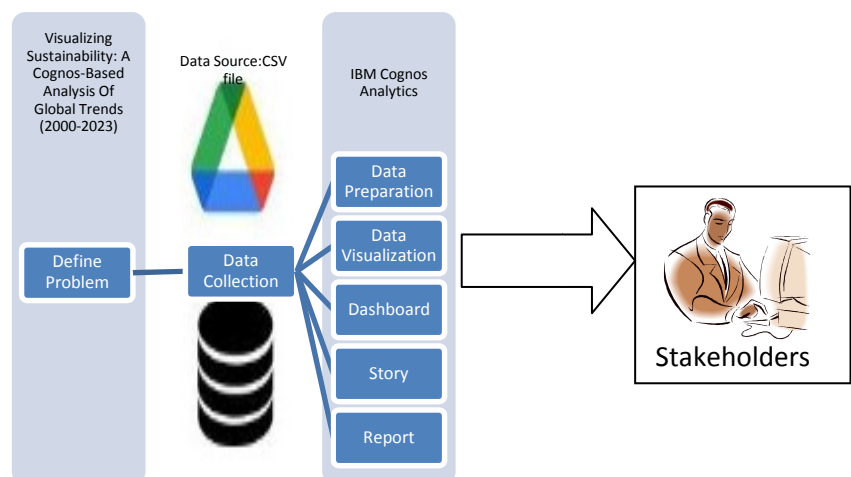
In order to make the 2030 Agenda a reality, a strong commitment is required by all stakeholders to practice the global goals.

- SDGs should be included as a part of curriculum of every domain
- Conferences and seminars of various levels must be conducted by every organization
- Stakeholders must be made aware of the current Scenario of SDGs in various countries since their establishment through informative stories and Dashboards using Data Analytics
- Every organization must exhibit and display good practices to enhance SDGs and may be ranked accordingly

This project aims at creating informative stories and Dashboards using IBM Cognos Data Analytics Platform.

3. THEORITICAL ANALYSIS

3.1. Block diagram



3.2.



Skills required: Data Analysis, for Data Visualization, Exploratory Data Analysis, IBM Cognos Analytics

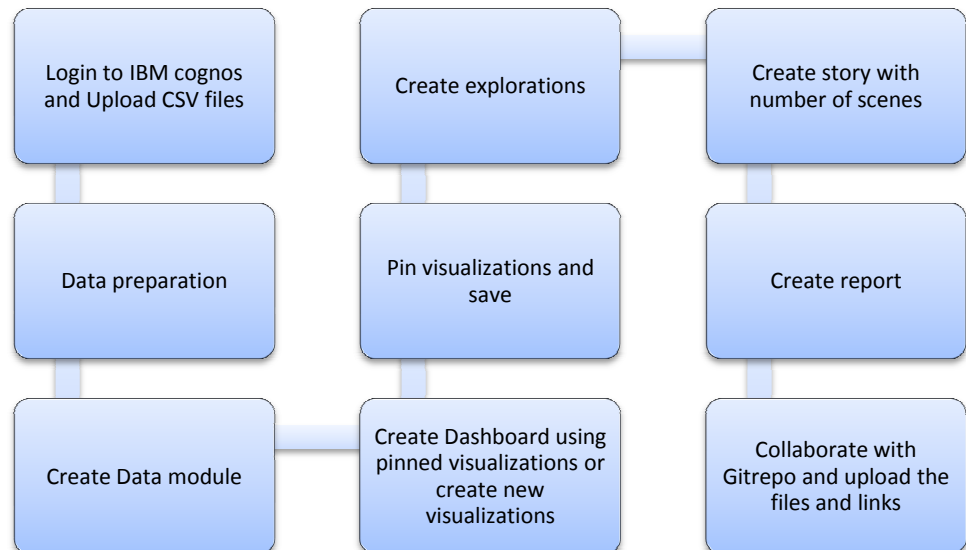
4. EXPERIMENTAL INVESTIGATIONS

Analysis or the investigation made while working on the solution.

Two csv files were given sdg_index_2000-2022.csv and sustainable_development_report_2023.csv. However, the second file consisted of data for 2023 and the first one had the data for the years 2000-2022. There was a need therefore to combine the files so as to have data from 2000-2023. Also region column was available in the second csv file. I removed this column and null values were replaced by '0'.

5. FLOWCHART

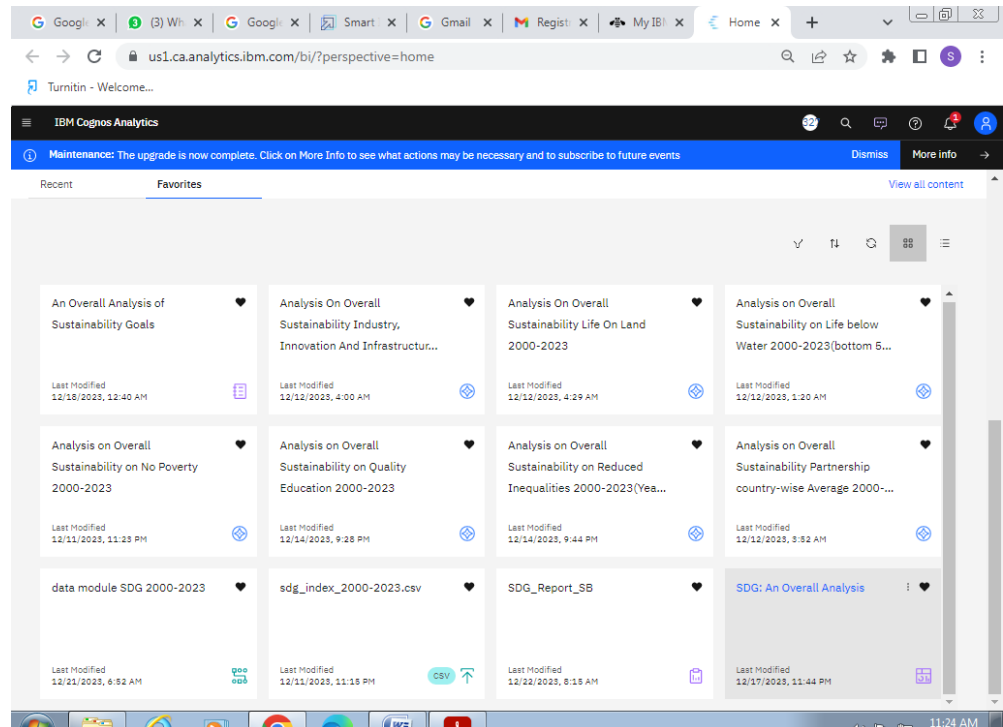
Diagram showing the control flow of the solution



6. RESULT

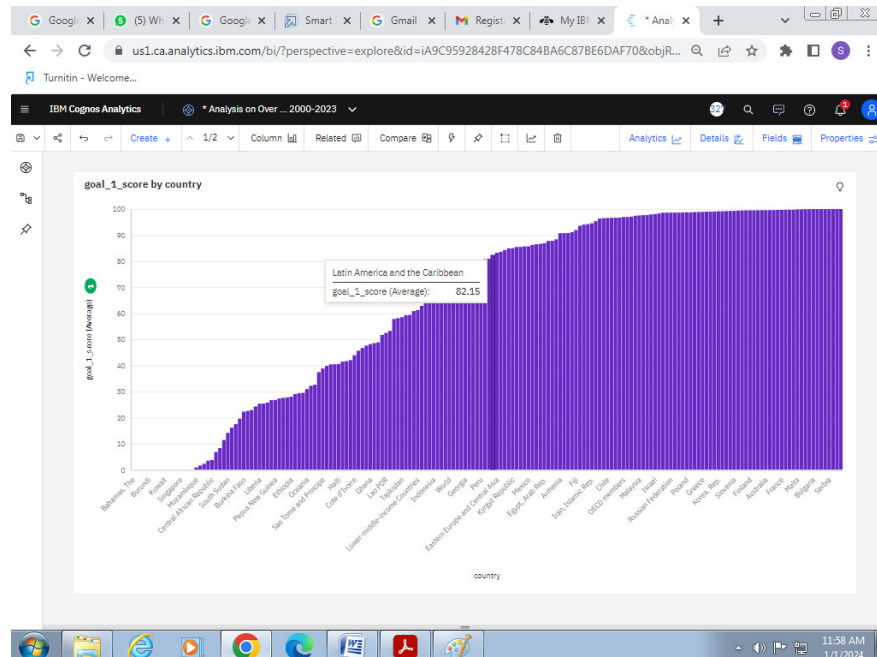
Some of the screenshots are as follows:

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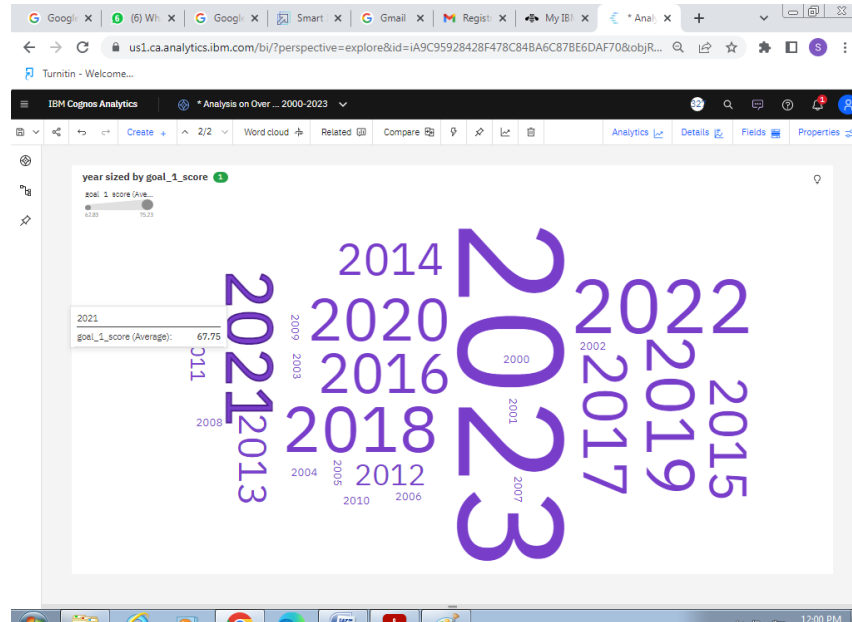
Some Vizualizations:

Goal 1: Average Scores arranged in Ascending order helps to identify countries where Goal 1 requires utmost attention on the lower end

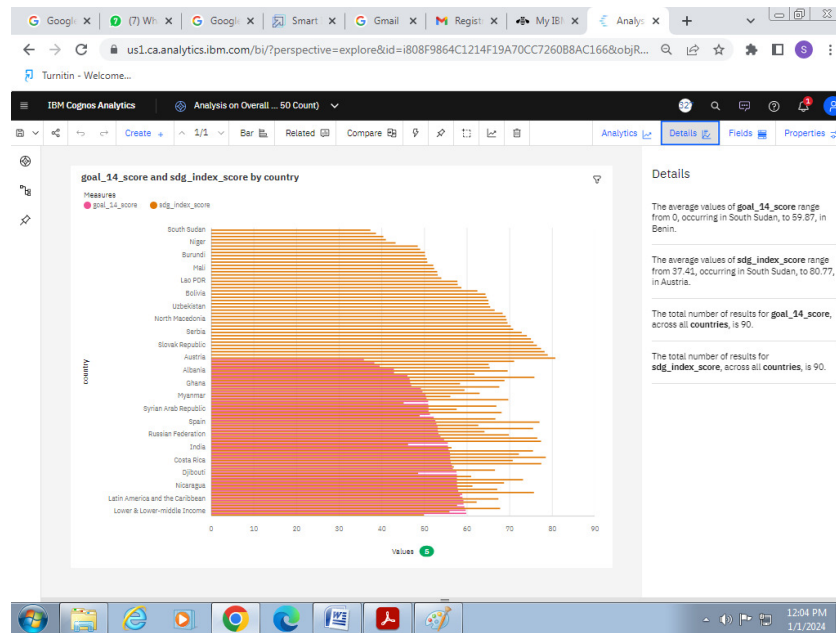


Year wise Analysis of Goal 1

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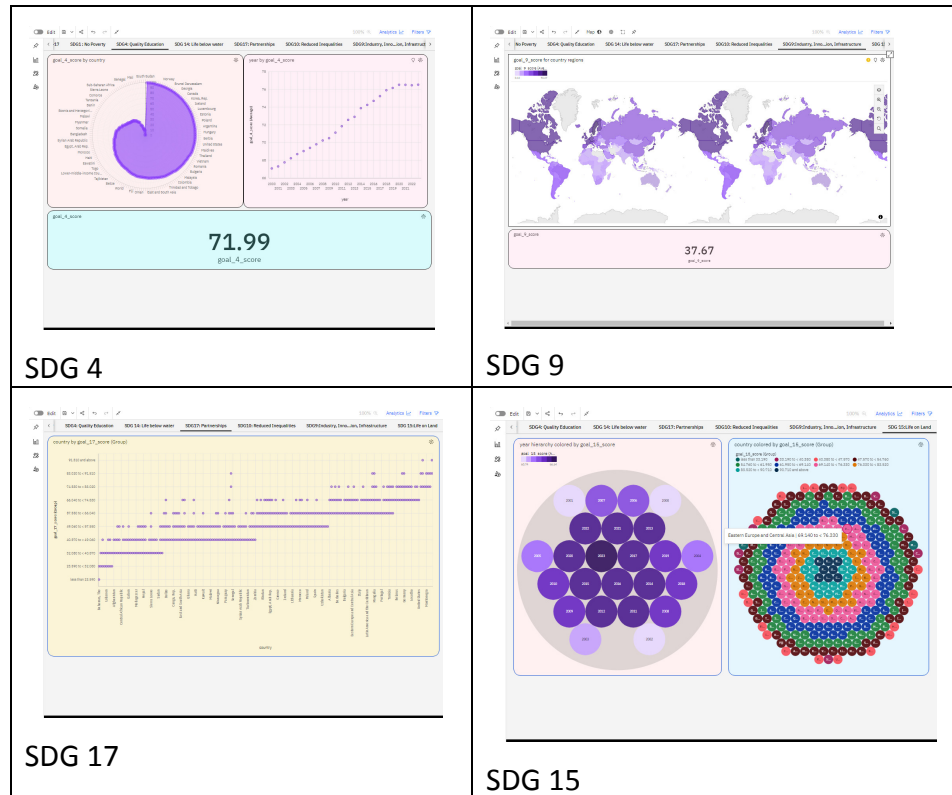
Goal 14 Analysis: Goal 14 average scores and Overall SDG scores filtered at bottom 50 shows that SDG 14 has less influence on overall SDG score in some countries



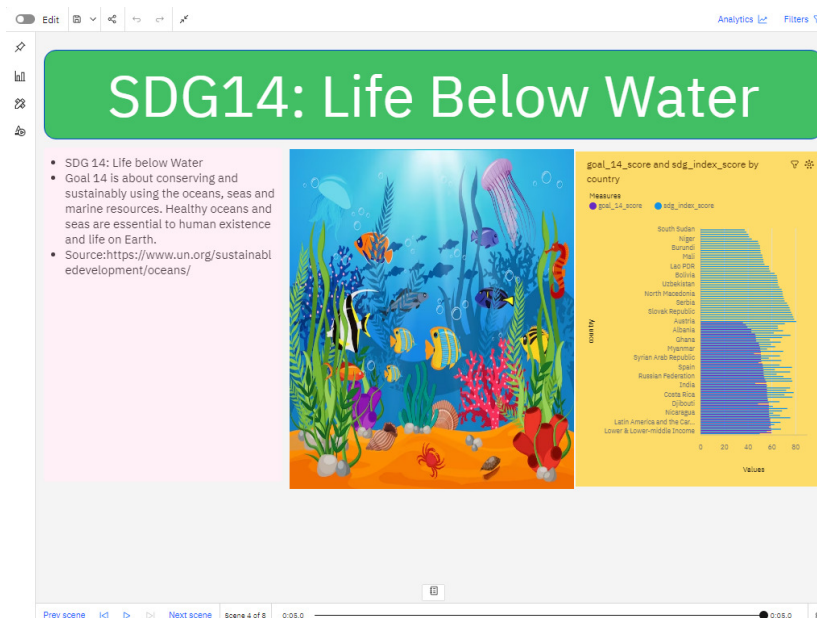
Dashboard



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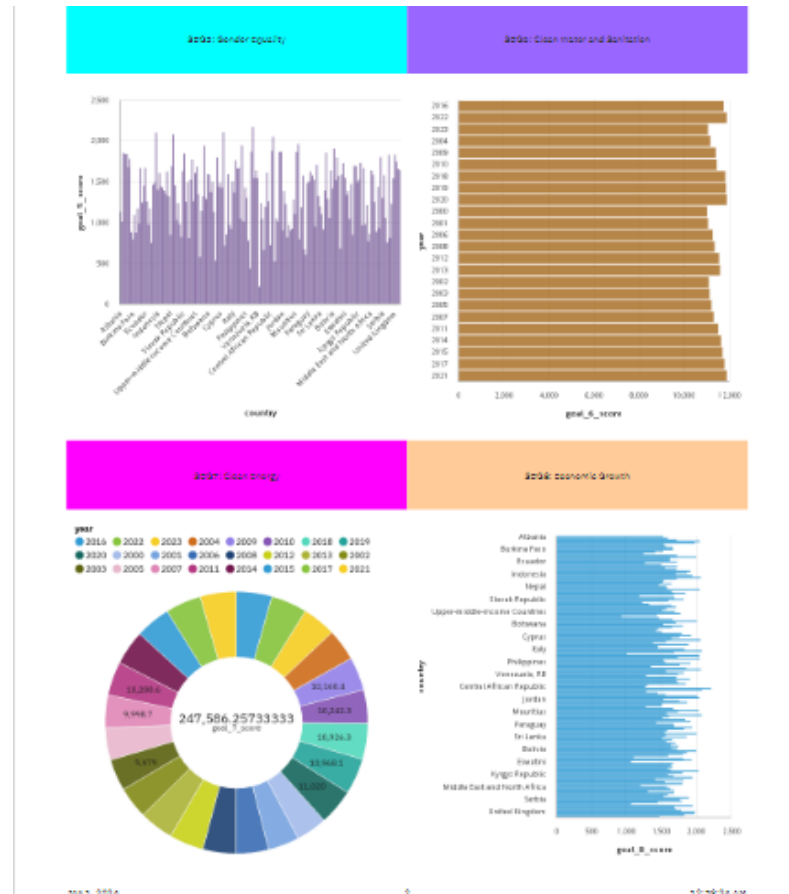


Story: Scene comprising SDG 14, a picture included with short description as well



Report: A report comprising of 4 pages and 16 visualizations was created and pdf generated

Page 2 of Report



7. ADVANTAGES & DISADVANTAGES

List of advantages of the proposed solution

- Pictorial representations are more comprehensive than data presented as a table with numbers or numbers so that it is grasped by every stakeholder
- Comparison can be effectively done that aids further plans to improve
- Different types of data require different types of charts that can be effectively presented using platform like IBM Cognos
- Addition of Pictures, transforming raw data using calculations and presenting data in an effective manner is possible using IBM Cognos platform of data Analytics
- Dashboards, stories and reports can be created using cloud storage and no separate storage required on a system

List of disadvantages of the proposed solution

- An in person explanation may need to be embedded along with dashboards, stories to have more impact on certain stakeholders

**8. APPLICATIONS**

- Educational Institutions
- Commercial Organizations
- Displays in Airports/ Railway stations etc
- Social Media
- News Letters/ Magazines
- And many more

9. CONCLUSION

In this project a dashboard, story and a report were created using IBM Cognos Analytics in order to aid increase in awareness regarding significance of SDGs to broad community of stakeholders. Sixteen different and Colorful Visualizations were created by using summarization and filter tools to make them easy to grasp. Rankings were organized in ascending order in some to display country-wise rankings and year-wise in some. These enable users to observe rankings related to various SDGs. This small step may lead to a journey of thousand miles in the collective roles to play by the stakeholders to bring about the improvement in SDGs and achieve the goal of **Vasudhaiva Kutumbakam**.

10. FUTURE SCOPE

This project was a naive attempt on the platform of IBM Cognos. Through good practice and diving deep into more exploration of the software the project may create more impact to the society. This tool is quite flexible and user-friendly and lot of add-ons can be incorporated to make dashboards, stories etc, impart any information through effective data analysis.

11. BIBLIOGRAPHY

1. https://en.wikipedia.org/wiki/Vasudhaiva_Kutumbakam
2. <https://sdgs.un.org/goals>