

Babu Banarasi Das University



Case Study
On
World Happiness Report 2023
-Data story

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PRACTICAL-9

Agenda / Definition

The goal of this project is to create an **interactive data story** in **IBM Cognos Analytics** using the **World Happiness Report 2023 Dataset**.

The story visualizes how **economic, social, and health factors** shape global happiness levels. It explores metrics such as *Happiness Score, GDP per Capita, Life Expectancy, Freedom, Social Support, and Perception of Corruption* to understand why certain nations are happier than others.

Outcomes / Learning

From this project I learned how to:

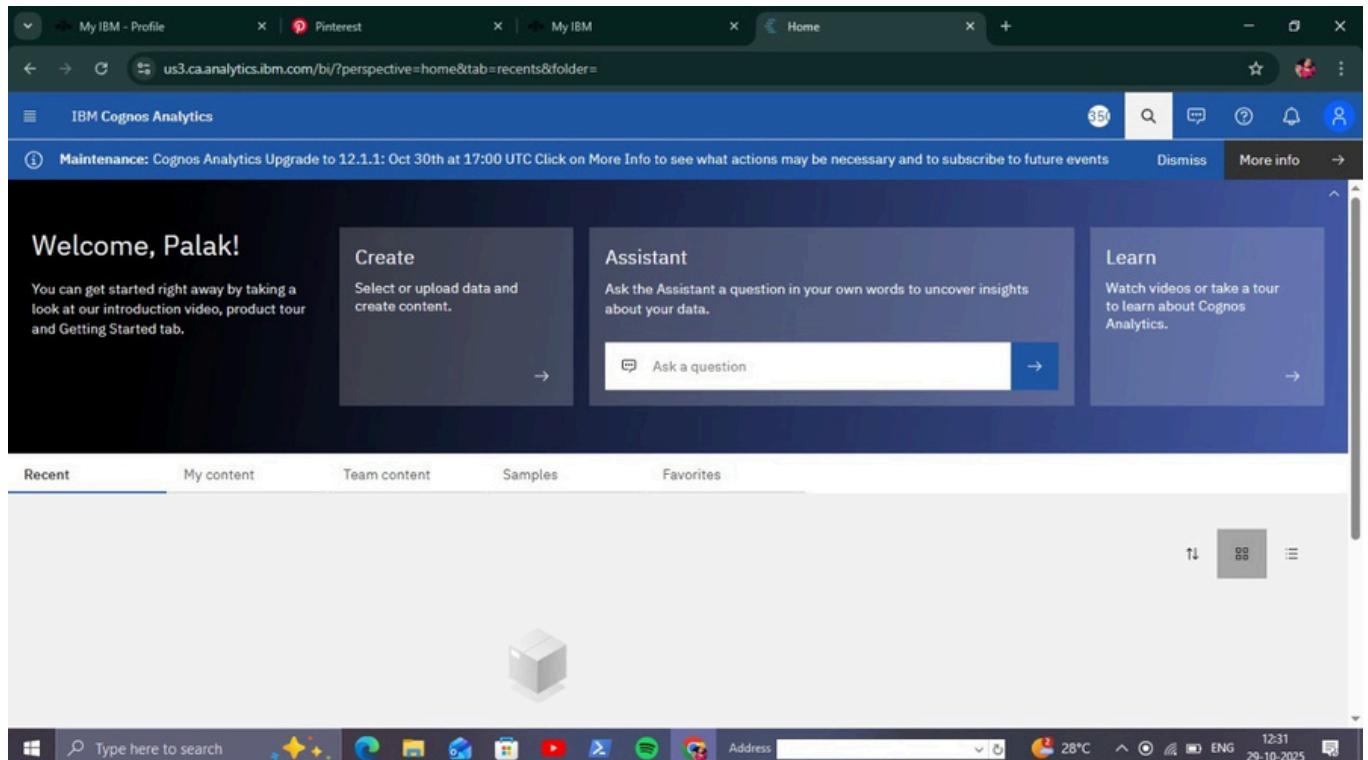
- Import, model, and visualize international datasets in **IBM Cognos Analytics**.
- Build **KPI dashboards, scatterplots, and bubble charts** for comparative analysis.
- Interpret **correlations between economic, social, and health indicators**.
- Present analytical findings through **data storytelling**.

This project strengthened my analytical thinking and visualization skills for real-world data interpretation.

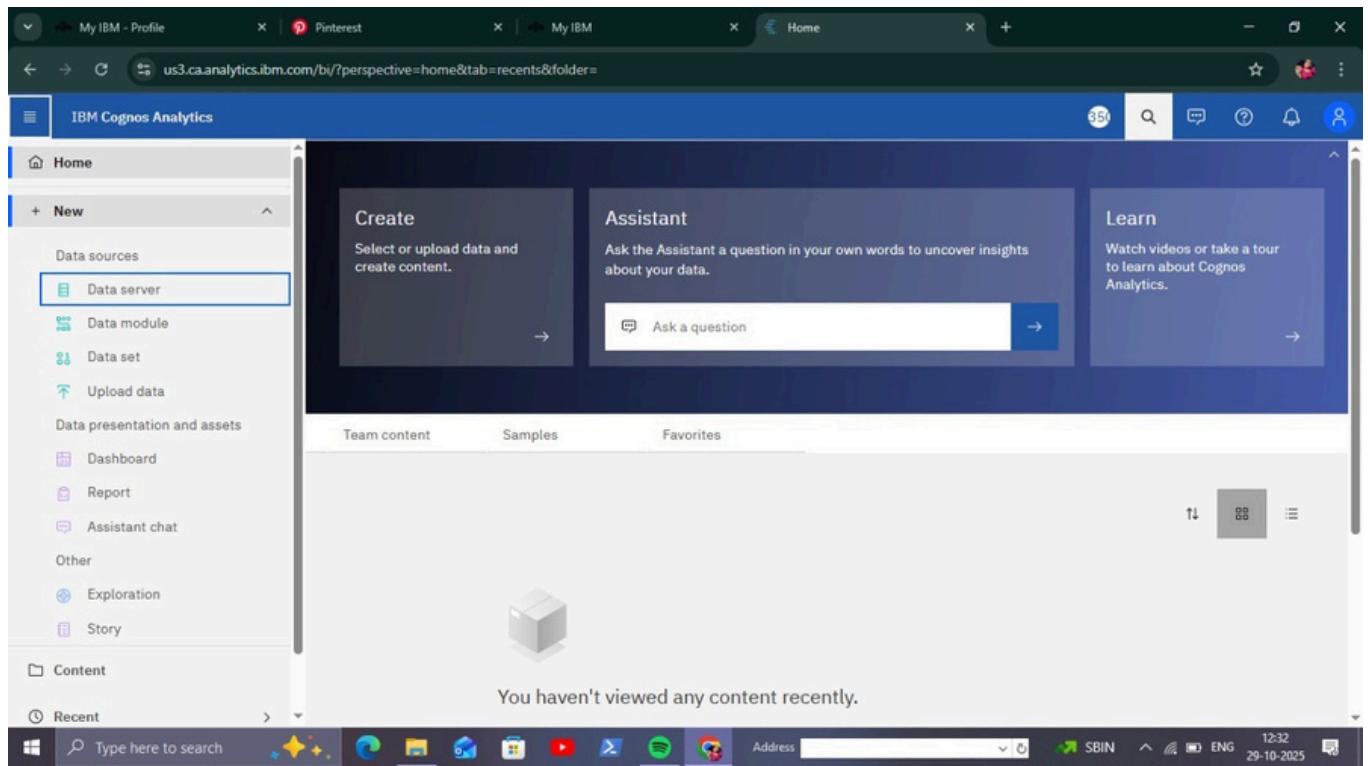
Required Tool

The required tool for this project is **IBM Cognos Analytics**.

Step 1: Login to IBM Cognos Analytics.



Step 2: Click the ≡ Menu → Content.



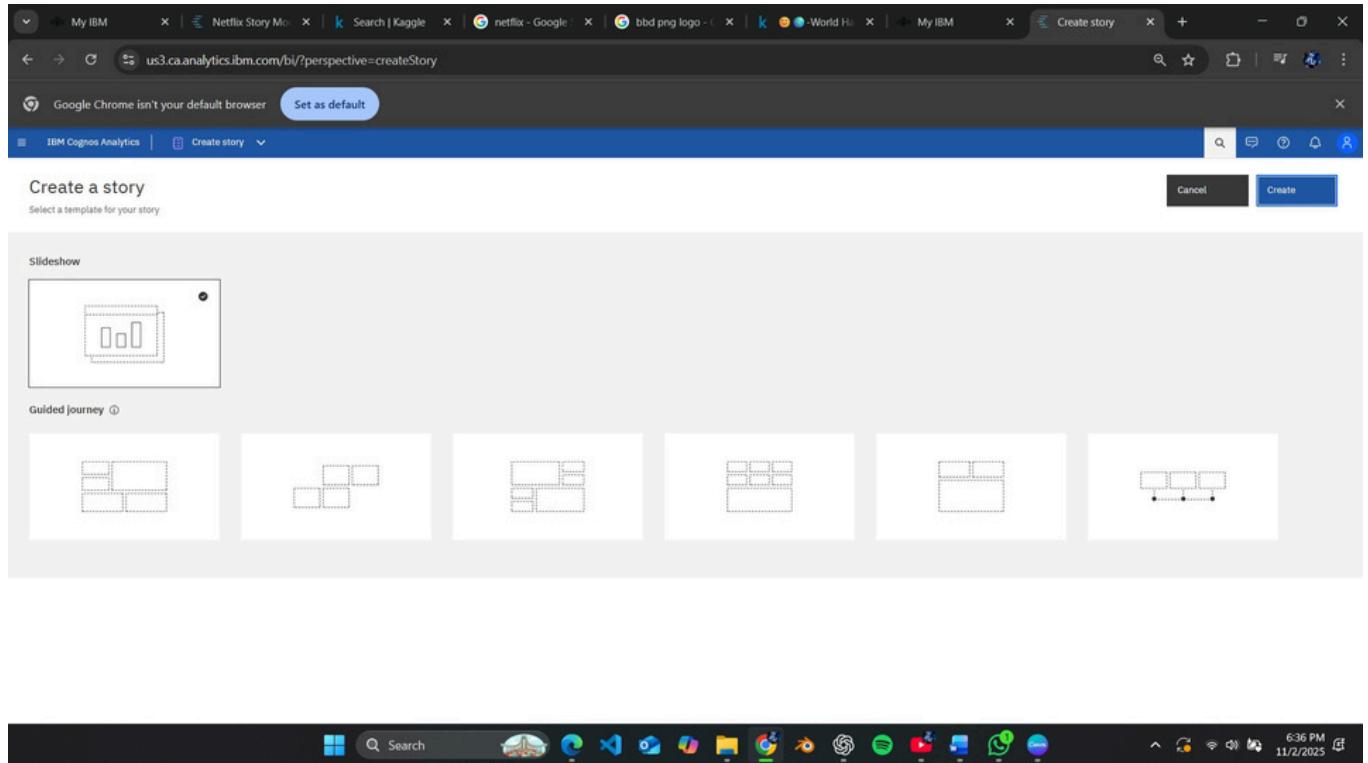
Step 3: Click **New → Upload Files** and upload the dataset **world_happiness_2023.csv** downloaded from Kaggle.

The screenshot shows the IBM Cognos Analytics interface. In the top navigation bar, there are several tabs including "My IBM", "Netflix Story Mo...", "Search | Kaggle", "netflix - Google", "bbd.png logo -", "World Ho...", and "My IBM". The main content area is titled "IBM Cognos Analytics" and "New data module". A message at the top says "Maintenance: The upgrade is now complete. Click on More Info to see what actions may be necessary and to subscribe to future events." Below this, there are three tabs: "Grid", "Relationships", and "Custom tables". The "Grid" tab is selected. On the left sidebar, under "Data module", there is a list with "New data module" highlighted. Under "Navigation paths", there is a folder named "WHR2023.csv". In the center, there is a circular icon with a grid and a checkmark, labeled "Preview data". Below it, a tooltip says "To preview data, select a table, a column in a table, or a folder that contains columns." At the bottom of the screen, the Windows taskbar is visible with various pinned icons and the date/time "11/2/2025 6:33 PM".

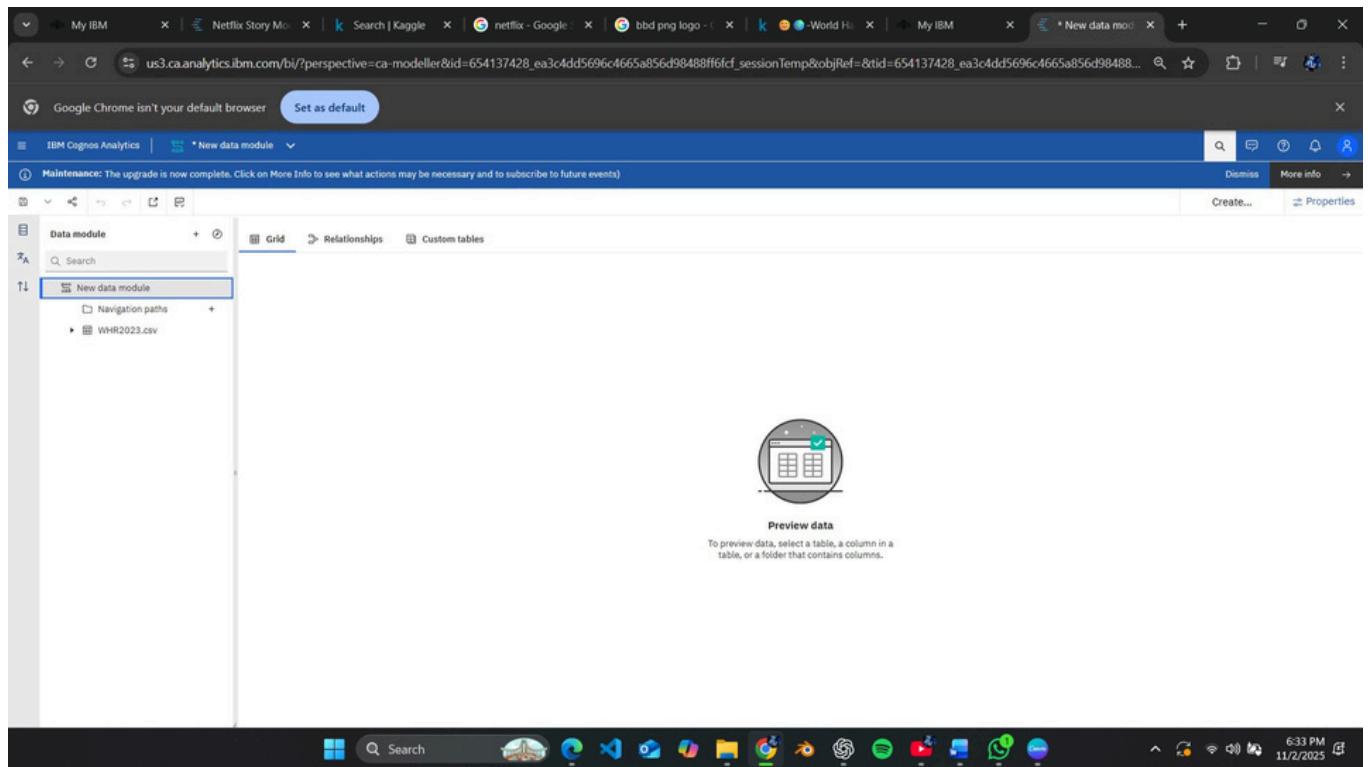
Step 4: After upload, click **New → Data Module** and select the uploaded file as your data source. Save the data module as “**World Happiness Story Module**.” Save the module under **My Content**.

The screenshot shows the IBM Cognos Analytics interface with the "Save as" dialog box open. The dialog box has "Name" input field set to "World Happiness Story Module." Under "Selected destination: My content", the "My content" button is selected. To the right of the dialog box, a list of files is displayed in a table format. The columns are "Name", "Type", and "Last Modified". The list includes various files such as "archive.zip", "Comprehensive_Banking_Database.csv", "hospital admission", "introduction data", "Netflix Story Module", "netflix_titles.csv", "new report", "patients.csv", and "revenue". The table also shows the last modified dates for each file. At the bottom of the dialog box, there are "Cancel" and "Save" buttons. The status bar at the bottom of the screen shows the URL "https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=654137428_ea3c4dd5696c4665a856d9848ff6fc_sessionTemp&objRef=&tid=654137428_ea3c4dd5696c4665a856d9848ff6fc_sessionTemp#".

Step 5: Click New → Story and choose a simple layout.



Step 9: Select World Happiness Story Module as your data source.



Scene 1 – Introduction

The screenshot shows the IBM Cognos Analytics interface. A slide titled "Analyzing the World Happiness Report 2023" is displayed. The slide content includes a box stating "Introduces the dataset and project objectives" and another box stating "Happiness is a multidimensional concept influenced by economic and social factors." A world map is shown in the background. The interface features a left sidebar with "Widgets" and "Shapes" sections, and a right sidebar with "Story properties" settings like "Story type: Slide show" and "Scene transition: Animated path". The bottom navigation bar shows "Scene 1 of 1" and a timeline from 0:00.0 to 0:05.0.

Scene 2 – Global Happiness Overview (KPI Dashboard)

The screenshot shows the IBM Cognos Analytics interface. A slide titled "Shows a global snapshot of overall happiness levels." is displayed. A KPI card is shown with the following data: "Country name compared to Ladder score for Ladder score" (5.54), "Ladder score" (137), and "Country name" (-95.96%). The interface includes a left sidebar for "Selected sources / World Happiness Story Module." and a right sidebar with a message "No visualization selected". The bottom navigation bar shows "Scene 2 of 8" and a timeline from 0:00.0 to 0:05.0.

Scene 3 – Top 10 Happiest Countries

Google Chrome isn't your default browser Set as default

IBM Cognos Analytics * New story

Edit Filters Fields Properties

Highlights the top-performing nations in 2023.

Nordic countries like Finland, Denmark, and Iceland dominate global happiness rankings.

Ladder score compared to Healthy life expectancy by Country name

Ladder score (Average) Healthy life expectancy (Average)

Country name: Afghanistan, Burkina Faso, Dominican Republic, Honduras, Kenya, Mexico, Pakistan, South Africa, United Arab Emirates

No visualization selected
Select a visualization to manage the field settings.

1 2 3 4 5 6

Prev scene Next scene Scene 3 of 8 0:05.0 7:31 PM 11/2/2025

Scene 4 – Regional Happiness Comparison

The screenshot shows the IBM Cognos Analytics interface with a scene titled "Compares average happiness across continents." The scene includes a bullet point stating "European and North American regions consistently show higher happiness scores than other regions." To the right is a visualization titled "Ladder score by Freedom to make life choices" showing a bar chart of ladder scores for various countries. The visualization details are: Ladder score (Average): 6.65, Country name (Count distinct): 1. The visualization area has six empty slots for other visualizations.

Scene 5 – Correlation Between GDP and Happiness

The screenshot shows the IBM Cognos Analytics interface with a scene titled "Shows a positive correlation – countries with higher GDP per capita generally have higher happiness levels." The scene includes a bullet point stating "To explore the relationship between a country's economic prosperity and its happiness." To the right is a scatter plot titled "Healthy life expectancy by Country name with points for Logged GDP per capita" showing a positive correlation. The plot includes data points for Lebanon, Bosnia and Herzegovina, Iceland, Bolivia, Zimbabwe, Nepal, New Zealand, Ukraine, and Romania. The visualization area has six empty slots for other visualizations.

Scene 6 – Happiness vs Health and Freedom

The screenshot shows a dashboard titled "Nations with higher life expectancy and greater freedom tend to be happier overall." The dashboard includes a scatter plot titled "Healthy life expectancy by Ladder score with points for Social support". The plot shows a positive correlation between healthy life expectancy and ladder score, with points colored by social support levels. The x-axis represents the ladder score (Average) ranging from 50 to 80, and the y-axis represents healthy life expectancy. A legend indicates that darker shades of purple represent higher social support levels.

Scene 7 – Social Support and Corruption Analysis

The screenshot shows a dashboard titled "Regions with higher social support and lower corruption are generally happier." The dashboard includes a scatter plot comparing "Freedom to make life choices" and "Perceptions of corruption" across regions. The plot shows a negative correlation between freedom to make life choices and perceptions of corruption, with points colored by social support levels. The x-axis represents "Freedom to make life choices" and the y-axis represents "Perceptions of corruption". A legend indicates that darker shades of purple represent higher social support levels.

Scene 8 – Summary & Key Insights

The screenshot shows a browser window displaying an IBM Cognos Analytics dashboard. The main title of the dashboard is "Summary & Key Insights". On the left, there is a navigation pane titled "Selected sources / World Happiness Story Module." which lists various data sources such as "WHR2023.csv", "Country name", "Ladder score", etc. The main content area contains a list of bullet points about happiness factors and a chart showing a downward trend from 5.54 to 64.97. A message on the right says "No visualization selected" and "Select a visualization to manage the field settings." The bottom of the screen shows a Windows taskbar with various icons.

REVIEWED BY:-

PALAK MAURYA