

Babu Banarasi Das University



Case Study
On
World Happiness Report 2023
-Data story

Submitted to: Mr. Robin Tyagi

Submitted by: palak maurya

Section: BCADS26

University roll no: 1240258311

Class roll no: **4**

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.

The screenshot shows the IBM Cognos Analytics Home page in a web browser. The top navigation bar includes tabs for 'My IBM - Profile', 'Pinterest', 'My IBM', 'Home', and a search bar. A maintenance message at the top right通知关于Cognos Analytics升级到12.1.1的信息。左侧欢迎区域显示'Welcome, Palak!'，并提供入门视频、产品导览和开始指南。中间有三个主要模块：'Create'（选择或上传数据并创建内容）、'Assistant'（通过自然语言提问助手以发现洞察）和'Learn'（观看视频或进行导览）。下方是'Recent'、'My content'、'Team content'、'Samples'和'Favorites'的导航链接。右侧工具栏包含筛选、搜索和更多选项图标。底部状态栏显示Windows任务栏图标、搜索框、地址栏、天气信息（28°C）、系统状态（SBN）以及日期和时间（29-10-2025, 12:31）。

Step 2: Click the ≡ Menu → Content.

This screenshot is similar to the previous one, showing the Home page of IBM Cognos Analytics. However, the left sidebar has been expanded to show the 'Content' section under the 'New' category. The 'Data server' item is currently selected. The rest of the interface remains the same, with the 'Create', 'Assistant', and 'Learn' modules visible in the center, and the Windows taskbar at the bottom.

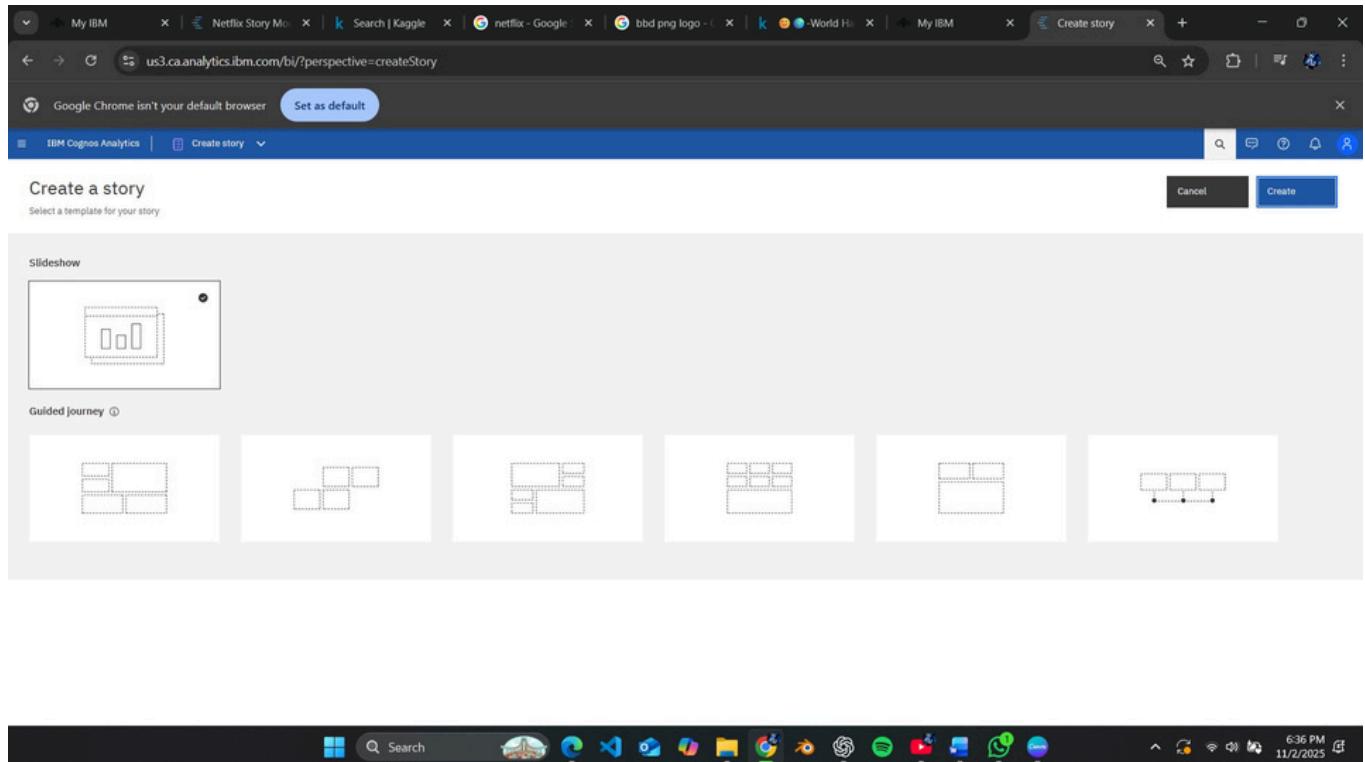
Step 3: Click **New → Upload Files** and upload the dataset `world_happiness_2023.csv` downloaded from Kaggle.

The screenshot shows the IBM Cognos Analytics interface. On the left, there's a sidebar titled "Data module" with a search bar and a list of items: "New data module" (which is selected and highlighted in blue), "Navigation paths", and "WHR2023.csv". The main area has tabs for "Grid", "Relationships", and "Custom tables", with "Grid" currently selected. In the center, there's a circular icon with a grid pattern labeled "Preview data" and the instruction "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".

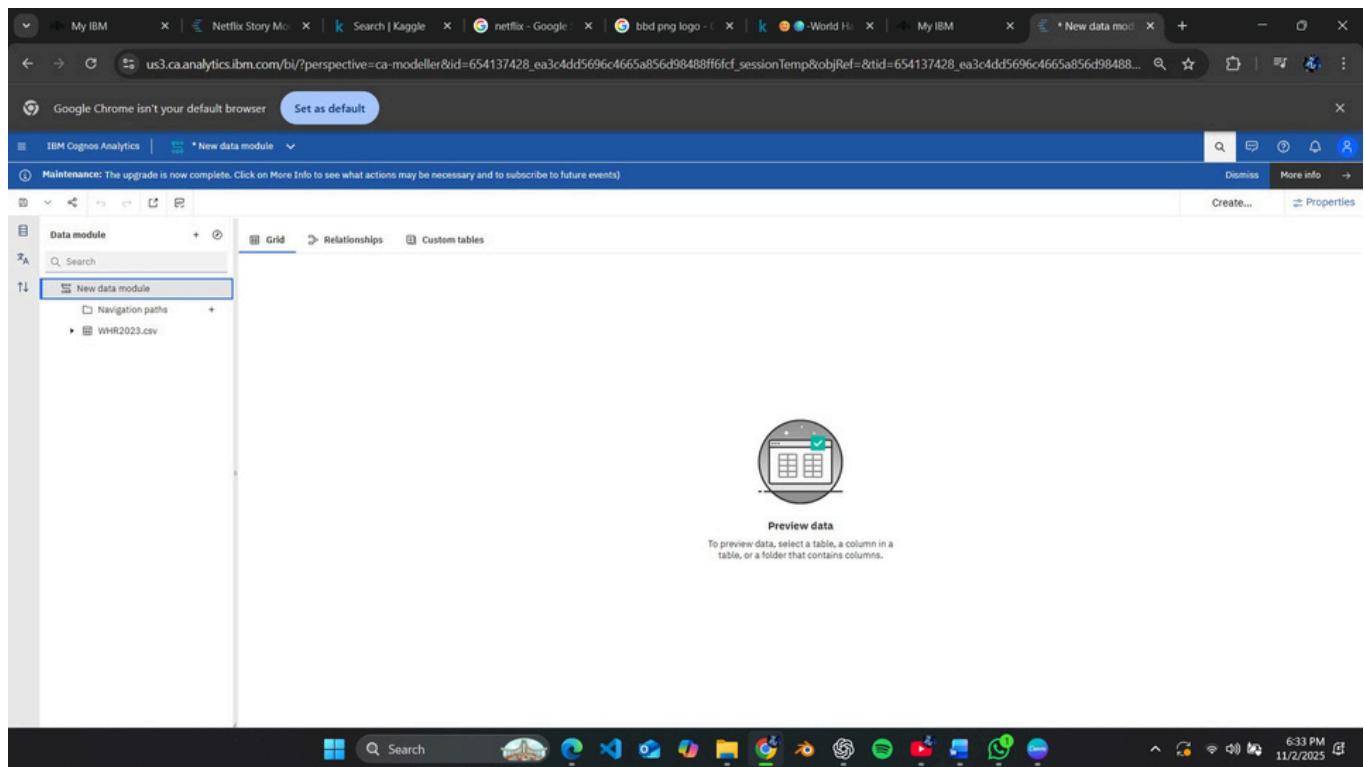
Step 4: After upload, click **New → Data Module** and select the uploaded file as your data source. Save the data module as “**World Happiness Story Module**.” Save the module under **My Content**.

The screenshot shows the "Save as" dialog box in the IBM Cognos Analytics interface. The "Name" field is filled with "World Happiness Story Module.". Below it, "Selected destination: My content" is chosen, with "My content" being the active tab. A preview pane on the right shows a portion of the data from the "WHR2023.csv" file, including columns like "GDP per capita", "Social support", "Healthy life expectancy", and "Freedom to ...". At the bottom of the dialog, there are "Cancel" and "Save" buttons. The background shows the same interface as the previous screenshot, with the "WHR2023.csv" item now listed in the "Data module" sidebar. The Windows taskbar at the bottom shows the date/time "11/2/2025 6:35 PM".

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. On the left, there's a toolbar with icons for 'Widgets', 'Standard', and 'Advanced'. Below that is a 'Shapes' library with various geometric and arrow-like icons. The main canvas area has a yellow background with the title 'Analyzing the World Happiness Report 2023' at the top. A world map is displayed in the center. A callout box on the left says 'Introduces the dataset and project objectives'. Another callout box on the right says 'Happiness is a multidimensional concept influenced by economic and social factors.' The right side of the screen features a 'Story properties' panel with sections for 'Scenes', 'Story type (Slide show)', 'Scene transition (Animated path)', 'Canvas', 'Filter panel', 'Color and theme', 'Visualization header icons', and 'Advanced'. The bottom of the screen shows a taskbar with various application icons.

Scene 2 – Global Happiness Overview (KPI Dashboard)

The screenshot shows the IBM Cognos Analytics interface. On the left, there's a sidebar titled 'Selected sources / World Happiness Story Module.' with a tree view of data sources like 'WHR2023.csv', 'Country name', 'Ladder score', etc. The main canvas area has a yellow background with the title 'Shows a global snapshot of overall happiness levels.' A KPI card is displayed in the center, showing 'Country name compared to Ladder score for Ladder score' with a value of '5.54 ↓'. Below the card is a horizontal navigation bar with six items labeled 1 through 6. The right side of the screen features a 'Story properties' panel with a section for 'No visualization selected' which says 'Select a visualization to manage the field settings.' The bottom of the screen shows a taskbar with various application icons.

Scene 3 – Top 10 Happiest Countries

Google Chrome isn't your default browser Set as default

IBM Cognos Analytics * New story

Analytics Filters Fields Properties

Selected sources /

World Happiness Story Module.

Search

Navigation paths

WHR2023.csv

- Country name
 - Ladder score
 - Standard e...der score
 - upperwhisker
 - lowerwhisker
 - Logged GDP per capita
 - Social support
 - Healthy li...expectancy
 - Freedom to...e choices
 - Generosity
 - Perception...rruption
 - Ladder sco...Dystopia
 - Explained ...per capita
 - Explained ...al support

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

0 10 20 30 40 50 60 70 80

0 10 20 30 40 50 60 70 80

Ladder score (Average)

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 0:00.0 0:05.0 7:31 PM 11/2/2025

Scene 4 – Regional Happiness Comparison

Google Chrome isn't your default browser Set as default

IBM Cognos Analytics * New story

Selected sources / World Happiness Story Module.

Navigation paths WHR2023.csv

- Country name
 - Ladder score
 - Standard ladder score
 - upperwhisker
 - lowerwhisker
 - Logged GDP per capita
 - Social support
 - Healthy life expectancy
 - Freedom to...e choices
 - Generosity
 - Perception...rruption
 - Ladder sco... Dystopia
 - Explained ...per capita
 - Explained ...al support

Compares average happiness across continents.

- European and North American regions consistently show higher happiness scores than other regions.

Ladder score by Freedom to make life choices

Ladder score (Average): 0.665

Country name (Count distinct): 1

7:32 PM 11/2/2025

Scene 5 – Correlation Between GDP and Happiness

Google Chrome isn't your default browser Set as default

IBM Cognos Analytics * New story

Selected sources / World Happiness Story Module.

Navigation paths WHR2023.csv

- Country name
 - Ladder score
 - Standard ladder score
 - upperwhisker
 - lowerwhisker
 - Logged GDP per capita
 - Social support
 - Healthy life expectancy
 - Freedom to...e choices
 - Generosity
 - Perception...rruption
 - Ladder sco... Dystopia
 - Explained ...per capita
 - Explained ...al support

Shows a positive correlation – countries with higher GDP per capita generally have higher happiness levels.

- To explore the relationship between a country's economic prosperity and its happiness

Healthy life expectancy by Country name with points for Logged GDP per capita

7:33 PM 11/2/2025

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 (Y-axis) and ladder score (X-axis). A callout box contains the text: "To understand how healthy life expectancy and freedom of choice affect happiness." The left sidebar lists navigation paths for "WHR2023.csv" including Country name, Ladder score, Standard e...der score, upperwhisker, lowerwhisker, Logged GDP per capita, Social support, Healthy li...expectancy, Freedom to...e choices, Generosity, Perception...corruption, Ladder sco... Dystopia, Explained ...per capita, and Explainedal support.

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 chart titled "Freedom to make ... Perceptions of cor...". The chart displays two series: "Freedom to make" (purple bars) and "Perceptions of corruption" (blue bars) across various countries. A callout box contains the text: "To analyze how social support and perception of corruption affect happiness across regions." The left sidebar lists navigation paths for "WHR2023.csv" including Country name, Ladder score, Standard e...der score, upperwhisker, lowerwhisker, Logged GDP per capita, Social support, Healthy li...expectancy, Freedom to...e choices, Generosity, Perception...corruption, Ladder sco... Dystopia, Explained ...per capita, and Explainedal support.

Scene 8 – Summary & Key Insights

The screenshot shows the IBM Cognos Analytics interface. On the left, there is a sidebar with navigation paths and a search bar. The main area displays a dashboard titled "Summary & Key Insights". The dashboard includes a list of bullet points about global happiness factors and a chart comparing healthy life expectancy and ladder scores. A message on the right says "No visualization selected". The bottom of the screen shows a taskbar with various application icons.

Summary & Key Insights

- Europe and North America lead global happiness levels.
- GDP, health, and social support are the top positive influencers.
- Corruption perception inversely affects happiness.
- Developing regions

Healthy life expectancy compared to Ladder score for Generosity and Perceptions of corruption

5.54 ↓
Ladder score
64.97 (-91.47%)
Healthy life expectancy

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

REVIEWED BY:-

PALAK MAURYA