BABU BANARASI DAS UNIVERSITY

LUCKNOW

Session : 2024-2025

SCHOOL OF COMPUTER APPLICATION

Case Study

On

LIFESTYLE DATA ANALYSES

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Submitted To:

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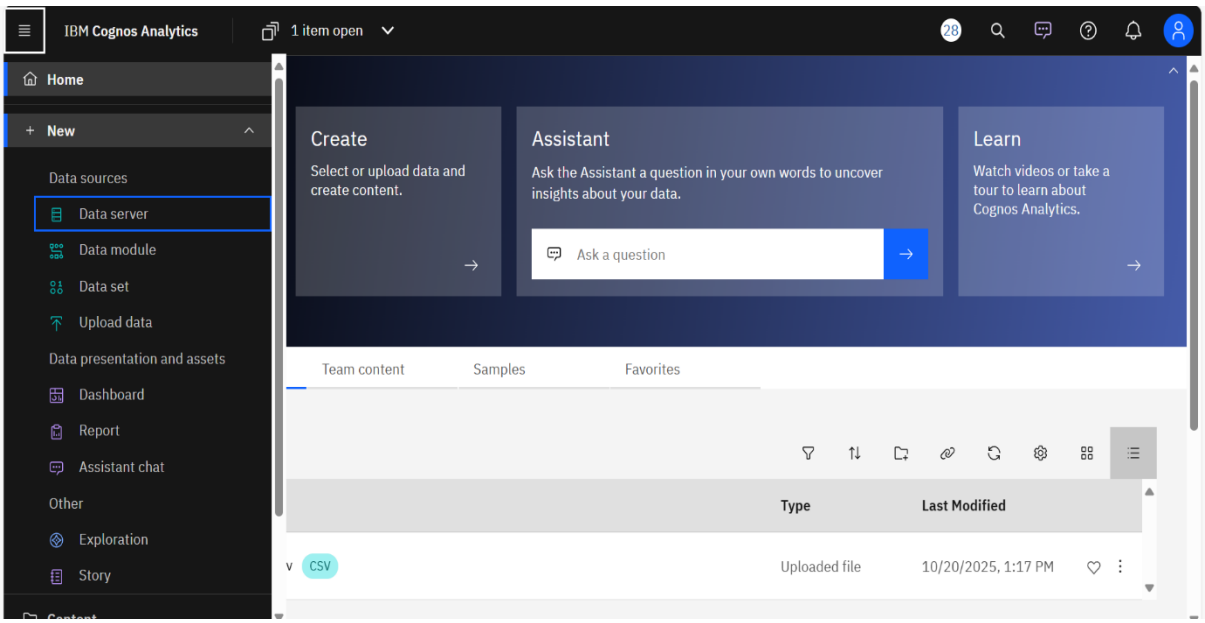
Definition: Create an interactive data story in IBM Cognos Analytics using the Lifestyle dataset to visualize and present key insights effectively. The story should include multiple scenes showing the impact of Lifestyle through various charts, graphs, and visual transitions. Highlight important factors such as type of exercises, meal and nutrition and calories burned over time. The purpose of this story is to communicate data insights in a narrative form, helping viewers easily understand patterns, trends, and the overall effect of the pandemic through engaging visual storytelling.

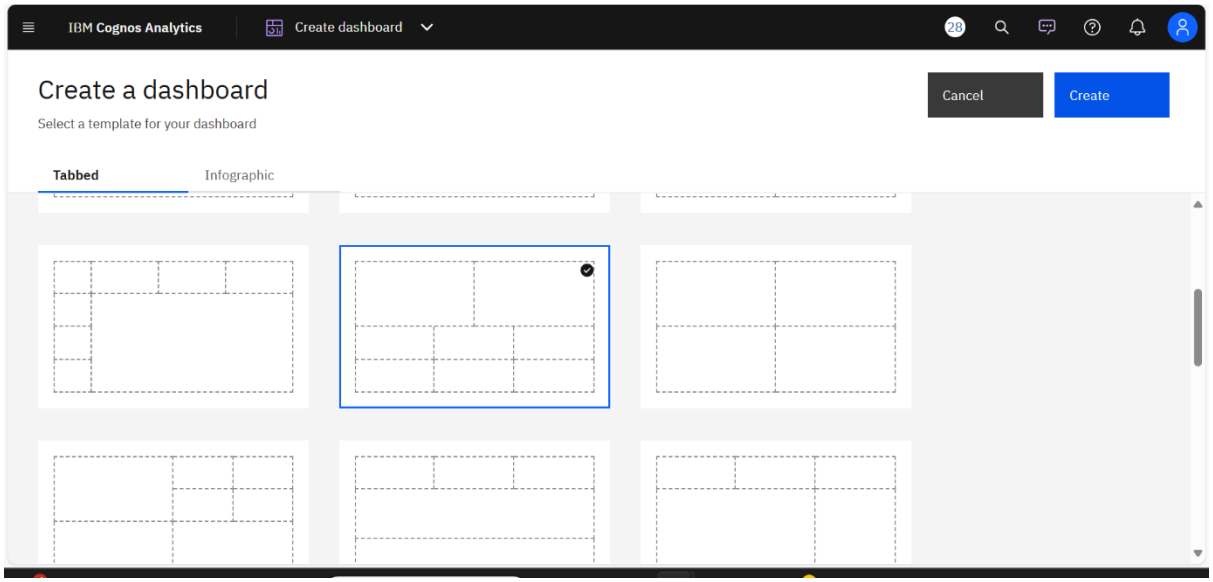
Goal: To study lifestyle data and analyze healthy and unhealthy lifestyle among different age group.

Below are the step-by-step instructions for creating the dashboard in IBM Cognos:

Step-1: Open IBM Cognos Analytics and click on **New->Dashboard**.



Step-2: Select a template for the tab.

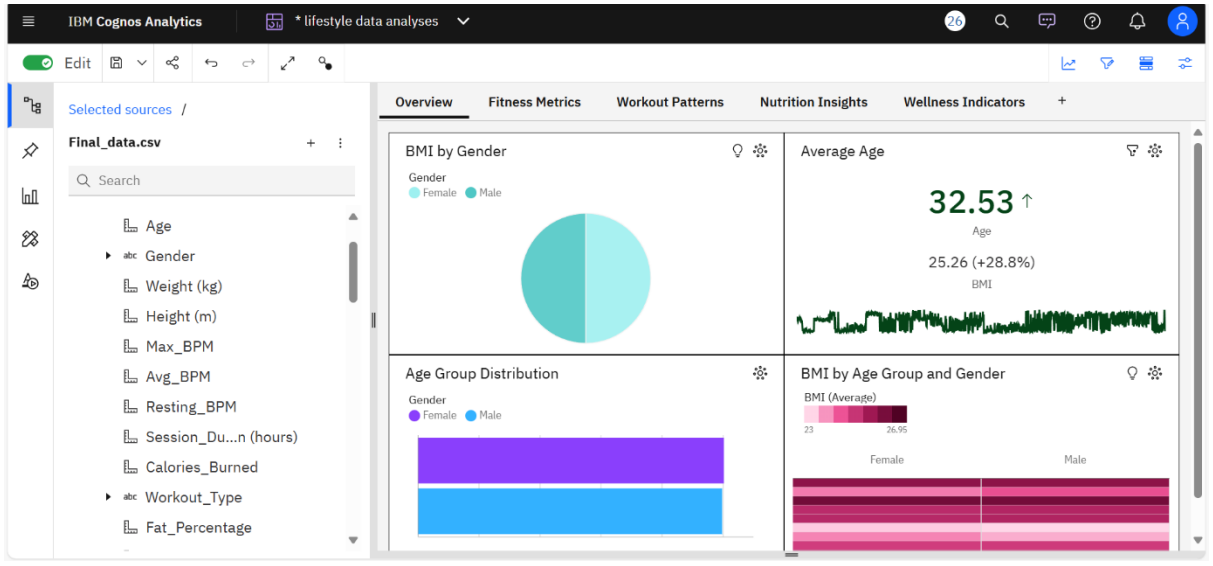


Step-3: Name Tab-1 as **Overview**. As for this tab:

Purpose: Provide a snapshot of the population being analyzed.

Visuals:

- KPI Tiles: Average Age, Avg BMI, Avg Weight, Avg Height
- Pie Chart: Gender Distribution
- Histogram: Age Group Distribution
- Heatmap: BMI vs Age vs Gender

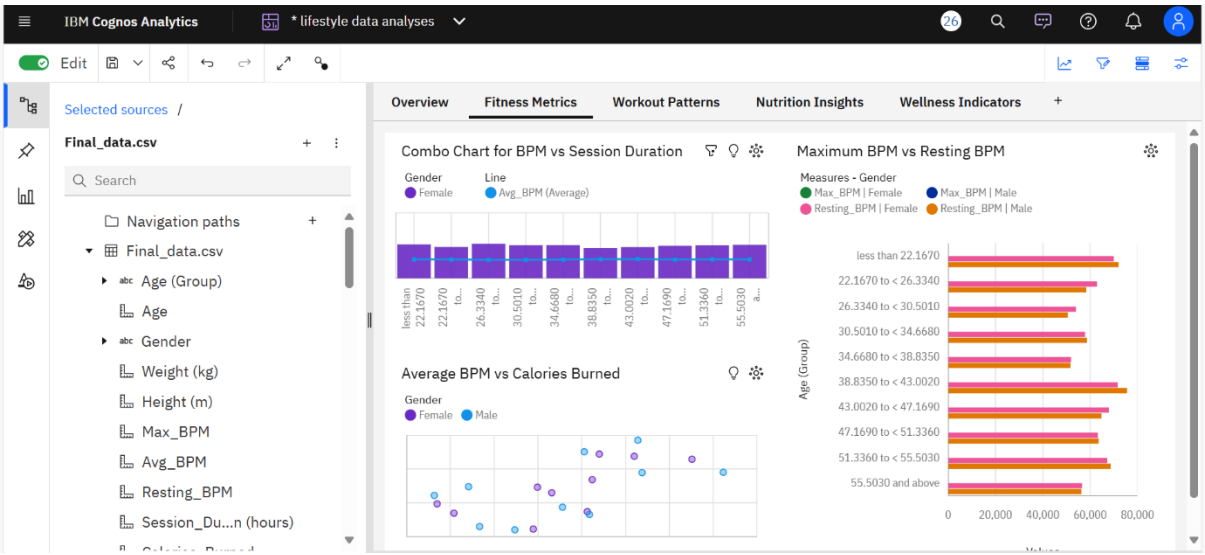


Step-4: Name tab-2 as Fitness Metrics.

Purpose: Heart rate & exercise performance trends.

Visuals:

- Line Chart: Average BPM vs Session Duration (hours)
- Bar Chart: Max BPM and Resting BPM comparison by Workout Type
- Scatter Plot: Average BPM vs Calories Burned vs Age

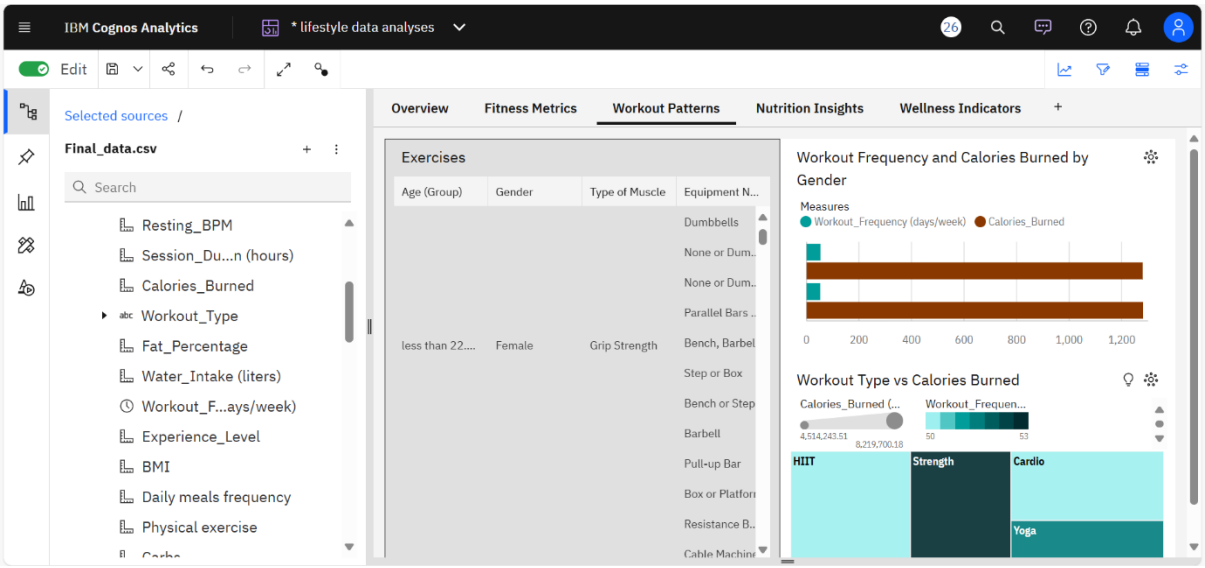


Step-5: Rename tab-3 as Workout & Training Patterns

Focus: Engage with workout behaviour and frequency.

Visuals:

- Bar Chart: Workout Frequency (days/week) vs Calories Burned
- Matrix/Table: Name of Exercise, Sets, Reps, Target Muscle Group, Equipment Needed, Difficulty
- Tree map: Workout Type vs Calories Burned

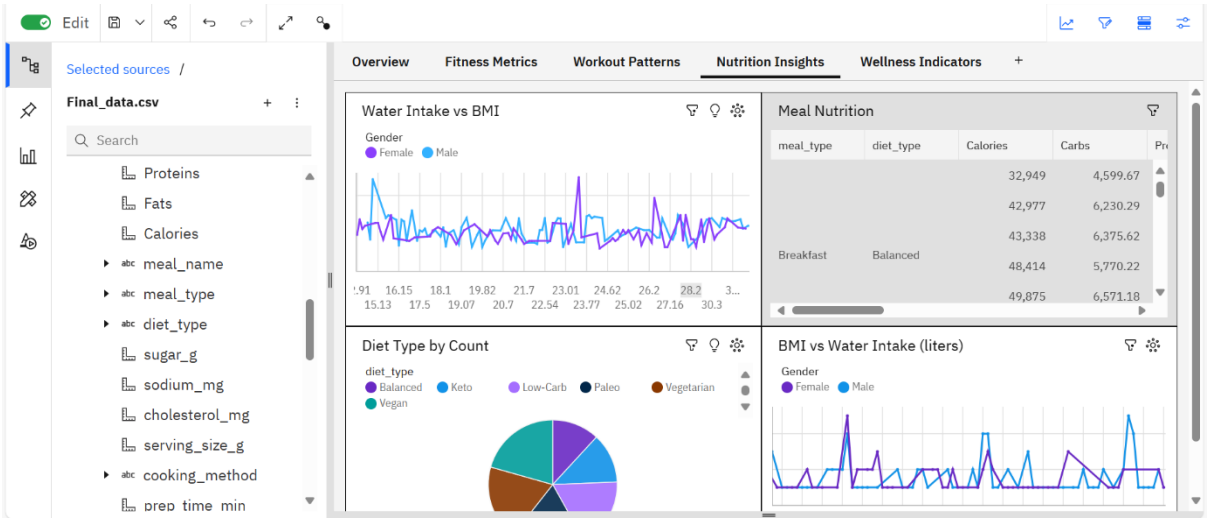


Step-6: Rename tab 4 as Nutrition Insights.

Purpose: Food habits and impact on health.

Visuals:

- Pie Chart: Diet Types (e.g., Vegetarian, Keto, Balanced)
- Bar Chart: Daily Meals Frequency vs BMI
- Table: Meal Name, Meal Type, Calories, Carbs, Proteins, Fats, Sugar, Sodium, Cholesterol
- Line Chart: Water Intake vs BMI

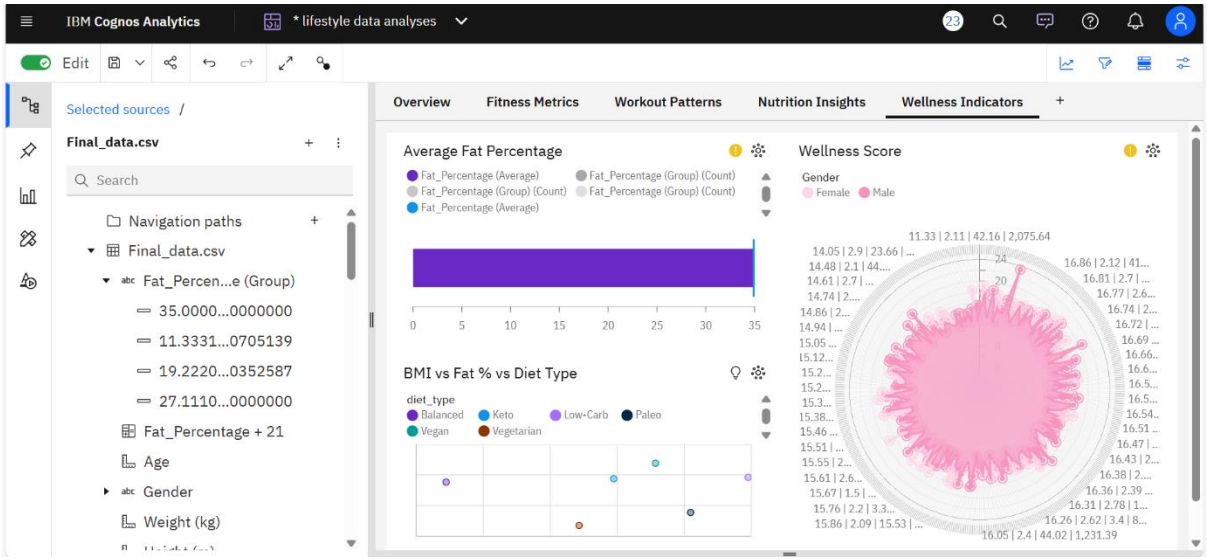


Step-7: Rename tab 5 as Wellness Indicators.

Focus: Overall health status and wellness tracking.

Visuals:

- Gauge Chart: % Healthy Meals
- Correlation Plot: BMI vs Fat % vs Calories Intake
- Radar Chart: Wellness Score (BMI, Fat %, Water, Cholesterol, Sodium)

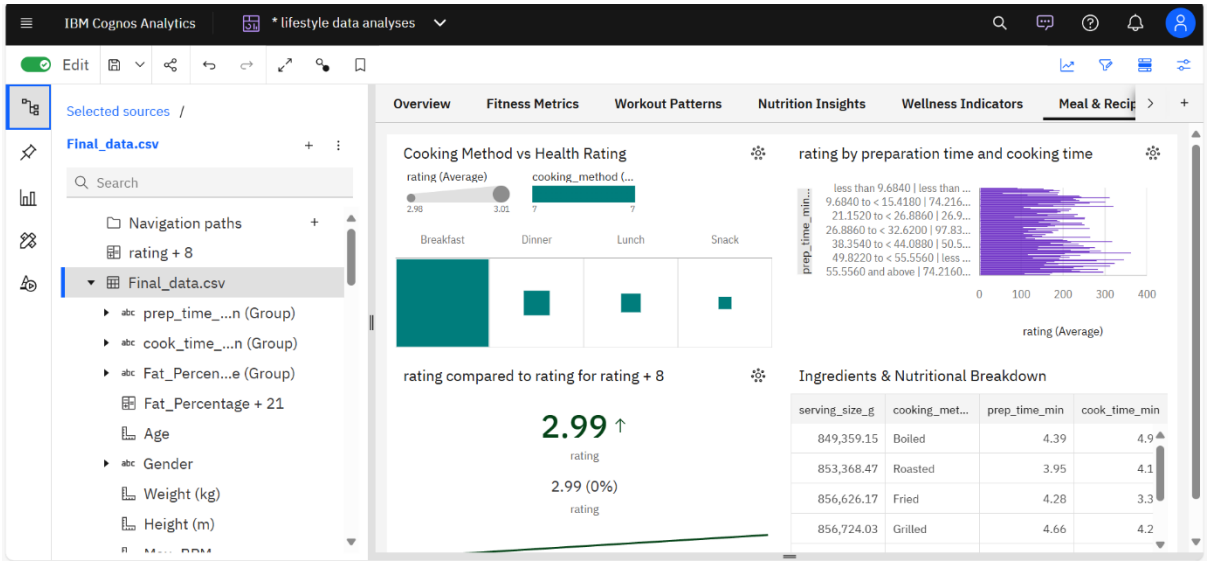


Step-8: Name tab-6 as Meal and Recipe Analytics.

Focus: Ingredients, cooking habits, and time analysis.

Visuals:

- Heat Map: Cooking Method vs Health Rating
- Bar Chart: Prep Time vs Cook Time vs Rating
- KPI: Average Meal Rating
- Table: Service Size (g), Cooking Method, Prep Time, Cook Time, Ingredients Nutritional Breakdown



Step-9: Name tab-7 as Exercise Effectiveness and calories burned.

Focus: Which workouts yield best results?

Visuals:

- Scatter Plot: Burns Calories vs Session Duration
- Bar Chart: Calories Burned by Workout Type
- Table: Exercise Name, Benefits, Body Part, Target Muscle, Burn Calories
- Ranking: Top 10 most effective exercises (by calories burned/min)