**Assignment : Interactive Dashboard – World Happiness Report**

**Objective:**

Design an interactive Streamlit dashboard to visualize and analyze global happiness data. The goal is to derive meaningful insights that explain the factors influencing happiness across countries and regions.

**Dataset:** : <https://www.kaggle.com/datasets/unsdsn/world-happiness>

**Problem Statement:**

The data is provided from the World Happiness Report, which includes variables such as GDP per capita, social support, freedom, generosity, life expectancy, and happiness score across different countries and regions. The task is to create an interactive data analytics dashboard in Streamlit that performs the following tasks:

1. **Top 10 Happiest Countries (Bar Chart)** o Display a bar chart showing the top 10 countries ranked by happiness score.
2. **GDP vs Happiness Score (Scatter Plot)** o Create a scatter plot to explore the relationship between GDP per capita and happiness score.
3. **Happiness Contribution by Region (Pie Chart)** o Present a pie chart that illustrates the regional distribution of the total happiness score.
4. **Correlation Heatmap** o Generate a correlation matrix heatmap (using Seaborn) to identify key factors most correlated with happiness.
5. **Predictive Modeling (Linear Regression)** o Build a linear regression model to predict the happiness score using GDP per capita and social support as input variables. Include a visualization comparing actual vs predicted scores.