**GlobeStay Travel Project Description**

**Project Background**

You will be working with **GlobeStay Travel**, a multinational online travel company operating in the **US, UK, and Germany**.

GlobeStay competes in a crowded and competitive online travel booking market. The company invests heavily in marketing across a wide range of channels, from highly measurable performance campaigns (e.g., search, remarketing, metasearch engines) to broader awareness media (TV, radio, display, social media).

While GlobeStay has built strong brand recognition in Europe, its US business relies more on performance marketing to compete against larger incumbents. The UK market sits in between, requiring a mix of both brand-building and performance tactics.

The company’s leadership team wants to understand how **marketing effectiveness varies by channel and by country**, and how to best allocate its marketing budget to drive bookings.

**Objective**

The objective of this project is to analyze GlobeStay’s marketing mix data across performance, digital, and offline channels, and to provide insights on which channels deliver the greatest return on investment. Students will use the provided dataset to evaluate channel effectiveness, account for holidays and competitive dynamics, and recommend how GlobeStay should optimize its marketing mix across the three countries.

**Data Sources**

Students will work with a **weekly panel dataset** containing ~590 weeks of data across the US, UK, and Germany. The dataset includes:

* **Performance Channels (direct response):**  
  Clicks and costs for **email, branded PPC, non-branded PPC, remarketing, and metasearch/shopping sites** (Google Hotel Ads, TripAdvisor, Trivago, and other platforms). These represent lower-funnel activities designed to capture bookings.  
  → Additional columns report **sales attributed to each performance channel** (e.g., sales from branded PPC, sales from TripAdvisor).
* **Digital Awareness Channels:**  
  Impressions and spend for **display advertising**, **online video (OLV)**, **YouTube**, and **Facebook** campaigns. These are mid- to upper-funnel investments aimed at visibility, reach, and engagement.
* **Offline Channels:**  
  Gross Rating Points (GRPs) and/or spend for **brand TV**, **direct-response TV**, **out-of-home (OOH)**, **radio**, **print**, and **cinema**. These investments are designed to build awareness and brand equity, with more diffuse effects on bookings.
* **Competitive Indicators:**  
  Measures of **competitor activity** in metasearch and online travel agency channels, capturing shifts in competitive pressure.
* **Control Variables:**
  + **Trend** and **seasonality dummies** (to capture time dynamics).
  + **Holiday dummies** specific to each country (e.g., US Thanksgiving, UK Bank Holidays, German Unity Day). These variables help isolate structural spikes or dips in demand.
* **Outcome Variables:**
  + **Total bookings** per week per country.
  + **Channel-attributed sales** from performance channels, which allow for attribution analysis.

**Key Business Questions**

1. Which marketing channels are most effective in driving bookings overall?
2. How does channel effectiveness vary across **performance, digital, and offline media**?
3. Do the relative returns on channels differ across **US, UK, and Germany**?
   * Should GlobeStay invest more heavily in brand-building in Europe vs. direct performance marketing in the US?
4. How do holidays, seasonality, and competitive activity affect demand and marketing performance?
5. What recommendations can be made for **optimizing the marketing budget allocation** across channels and countries?

**Suggested Analytical Tasks**

Below are a few suggestions on how to approach the problem. Do not feel limited to this list.

* **Data Preparation:**  
  Aggregate weekly data by channel and country; ensure variables are scaled consistently; handle missing values.

Consider adding control variables such as time trend, seasonality and other feature engineering approaches such as variable transformations.

* **Descriptive Analytics:**  
  Summarize marketing spend, impressions, and bookings by channel and by country.  
  Identify trends and seasonal patterns in demand.

* **Channel Effectiveness:**  
  Estimate the contribution of each channel to bookings.  
  Compare performance vs. awareness channels.

* **Country-Level Comparisons:**  
  Identify differences in marketing effectiveness across the US, UK, and Germany.  
  Recommend country-specific marketing strategies.

Make sure to use the same currency for spending in your analysis and comparative insights.

* + **Attribution & Scenario Analysis:**  
    Attribute bookings to different performance channels.  
    Simulate what would happen if GlobeStay shifted budget (e.g., +10% to branded PPC, –10% from TV).