Graduation Project Proposal Form

1. Project Information

- **Project Title:** Hidden Gems Egypt
- **Course/Track:** Data analysis_ s6
- **Team Members:**

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    2. Toka Salah Shaban Ahmed.
    3. Yomna Yasser Sayed Yousef.
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2. Project Overview

- **Objective:**
  transform the way people explore egypt by creating a cutting edge, data driven tourism platform that combines weather trends, pricing, events, safety scores, and traveler reviews into one interactive dashboard. this tool will help visitors choose the perfect destination and timing for their trips, empower travel agencies to promote hidden gems, and support policymakers in improving safety and boosting under-visited areas and making every journey safer, richer, and more exciting.

- **Scope of Work:**
  The project involves collecting and organizing tourism-related data from multiple sources, including Excel sheets, databases, and online resources.
  The data is structured into several tables covering:
  Tourist Attractions: Name, type (Beach, Historical, Cultural, Natural, Adventure…), rating, number of ratings, visitor count, nearby attractions.
  Weather and Climate: Monthly temperature for each province, climate type (Hot / Moderate / Cold), seasonal factors.
  Safety and Events: Safety levels (High / Medium / Low), ongoing activities and special events, seasonal crowd levels.
  Hotels and Accommodation: Number of hotels, hotel ratings, availability of tour programs, average cost per night, nearby restaurants.
  Visitor Information and Costs: Visitor nationalities, average stay duration, transport costs, food availability, entry fees, recommended best months to visit.
  This structured data will then be cleaned, standardized, and prepared for analysis and visualization in the interactive dashboard

- **Expected Outcomes:**
  Improved decision-making for tourists and travel agencies with accurate, up-to-date insights.
  Increased tourism in lesser-known areas by highlighting their advantages.
  Enhanced safety measures through data-driven recommendations for high-risk destinations.
  An interactive, user-friendly dashboard that simplifies access to complex tourism data.
  Support for sustainable tourism planning based on clear analysis of trends and challenges

3. Problem Statement

Despite Egypt's rich cultural and historical assets, the tourism sector faces challenges in maximizing its potential due to insufficient data-driven insights. Key patterns—such as the most visited sites, seasonal peaks, top tourist-origin countries, and factors behind under-visited locations—are not systematically analyzed. This limits the ability to promote lesser-known destinations and optimize the overall tourist experience. In contrast, many countries leverage advanced digital tools to enhance visitor engagement and site exploration. Integrating comprehensive data analysis with modern technologies can bridge this gap and strengthen Egypt's global tourism competitiveness.

4. Proposed Solution

- **Technologies Used:**

  Excel – for data collection, organization, and initial cleaning.

  Power Pivot – to integrate multiple tables, create relationships, and prepare a master dataset.

  Pivot Tables & Charts – to summarize data and generate visual insights.

  Interactive Dashboard (Excel / Power BI / Tableau) – to combine all visualizations into a user-friendly, interactive interface for tourists, travel companies, and government authorities.

  Python for advanced data cleaning, calculations, or generating additional metrics if needed.

  Online Data Sources / APIs – for live updates on weather, events, and visitor reviews

- **System Architecture:**

  Data Collection: Gather all tourism-related data from Excel sheets, databases, and online resources.

  Data Processing & Cleaning: Use Power Pivot in Excel to organize, clean, and structure the data into a master table.

  Data Analysis: Create Pivot Tables to summarize key metrics such as visitor counts, ratings, costs, and seasonal trends.

  Visualization: Generate charts, graphs, and maps from the Pivot Tables to highlight patterns, trends, and insights.

  Dashboard Integration: Combine all visualizations into a single interactive dashboard, allowing users to filter by province, city, site type, safety level, costs, and more.

  Decision Support: The dashboard provides actionable insights for tourists, travel companies, and government authorities to make informed decisions.

5. Resources Needed

- **Hardware/Software:**

  Hardware: Personal computer with standard specifications to handle data processing and dashboard visualization.

  Software:Excel – for data collection, cleaning, and organization.

  Power Pivot – to integrate multiple tables and prepare a master dataset.

  Pivot Tables & Charts – to summarize and visualize data.

  Dashboard Tools: Excel, Power BI, or Tableau for interactive visualization.

  Python (Optional): For advanced data cleaning, calculations, or generating additional metrics.

6. Approval

- **Instructor/Advisor:** …………………………………………………………………….…………………………………
- **Signature:** ………………………………………………………………………………………………………..