

# Requirements Smart Tourism Development System project

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## 1. Introduction

The Smart Tourism Development System is a data-driven platform designed to enhance the tourism experience in Egypt by analyzing feedback from tourists to provide actionable insights.

## 2. Project Objectives

- Providing actionable insights by analyzing tourist feedback using data analytics and machine learning.
- Supporting government bodies and tourism operators in making data-driven decisions.
- Improving tourist satisfaction and competitiveness in the tourism sector.

## 3. Functional Requirements

The system will perform the following functions:

- Automated Data Collection: Scrape feedback from platforms like Booking.com.
- Sentiment Analysis: Analyze feedback and categorize it into positive, and negative sentiments.
- Pain Point Identification: Highlight recurring issues in tourist feedback.
- Dashboards: Provide insights for government bodies and operators.
- Predictive Analytics: Forecast potential issues based on historical data.

## 4. Non-Functional Requirements

- Scalability: The system must handle increased data loads as feedback volume grows.
- Performance: Scraping and analysis tasks should complete within the least time can.
- Security: Role-based access control to ensure data privacy.
- Usability: Dashboards must be user-friendly and intuitive.

## 5. Tools and Technologies

- Backend: MongoDB, Python.
- Frontend: Angular, HTML, CSS, JavaScript.
- Data Analytics: Pandas, NLTK, sentiment analysis libraries.
- Deployment: AWS services (RDS, EC2, Lambda, Elastic Beanstalk).