**Project 2 Milestone Report 1**

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**Business Situation**

The Hotel Market is an incredibly competitive and lucrative market. Considering that Hokie Resorts Hotels just purchased two major resort and hotel corporations, each consisting of 100 hotels, it is important that management of this company assess the following in order for the company to not only stay competitive but also grow beyond and become a major market leader. The three main questions are: Is the location profitable to operate in? What can we offer guests that our competitors cannot? How can we optimize revenue and reduce operating costs in regards to room and services?

When management assesses its current situation, it should look to determine which locations are the most profitable in the hotel business. The location of hotels is critical to this line of business because the most profitable locations are often in areas with a high volume of tourism, ongoing events, and established business hubs. Locations that cater to both leisure and business travelers offer opportunities to maximize occupancy rates and revenue streams. Understanding profitability by location allows management to identify where they should focus their efforts, whether it involves improving existing facilities, investing in marketing strategies for underperforming locations, or even closing or repurposing non-profitable properties. For example, knowing that a particular location thrives during peak tourist seasons but struggles during the off-season enables better planning for promotions and tailored offerings to maintain revenue flow year-round.

For the second question, which is what can we offer guests that our competitors cannot; is essential for building and maintaining a competitive edge. Differentiation in the hospitality industry is key, as customers have countless options. Offering unique amenities, personalized services, or exclusive partnerships can set Hokie Resorts Hotels apart from competitors. For instance, partnerships with local attractions, tailored packages for families or corporate clients, or enhanced digital services like seamless check-ins and loyalty rewards can significantly enhance guest experiences. A data warehouse can help track guest preferences, feedback, and behavior, allowing Hokie Resorts Hotels to anticipate needs and deliver value that competitors cannot. By focusing on personalization and innovation, management can foster guest loyalty, which is critical for sustaining long-term profitability.

Finally, optimizing revenue and reducing operating costs is vital for maintaining financial health. Efficient resource allocation, pricing strategies, and cost management in regards to rooms and services are central to achieving this. The data warehouse should allow management to monitor and analyze metrics such as room occupancy rates, operational costs, and revenue generated per guest. Insights from this data can guide decisions on pricing models, staffing levels, and energy usage. For example, dynamic pricing strategies based on demand and occupancy trends can maximize revenue, while better scheduling of cleaning and maintenance staff can reduce labor costs without sacrificing service quality. Additionally, monitoring ancillary services like restaurants, spas, and conference rooms can reveal which services are most profitable and where cost-saving measures can be applied.

By addressing these three questions, management can position Hokie Resorts Hotels as a market leader. These questions not only help understand current performance but also identify opportunities for growth and innovation. Profitability analysis ensures that resources are focused where they yield the highest returns. Differentiation through guest-centric offerings builds a loyal customer base, while operational optimization drives financial efficiency. Together, these strategies form a solid foundation for sustained success in the competitive hospitality market.

**ERD Model:**

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**Data Dictionary**

* **AmenityDim**

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* **GuestDim**

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* **RoomDim**

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* **LocationDim**

**A screenshot of a computer

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* **ReservationFact**

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* **EventParticipationFact**

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* **BillingFact**

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* **ServiceDim**

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* **EventDim**

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**SQL Create Statements:**

1. **AmenityDim:**

CREATE TABLE AmenityDim (

AmenityID INT,

AmenityType VARCHAR,

Availability BOOLEAN,

RoomID INT,

PRIMARY KEY (AmenityID),

FOREIGN KEY (RoomID) REFERENCES RoomDim(RoomID)

);

1. **GuestDim:**

CREATE TABLE GuestDim (

GuestID INT,

Name VARCHAR,

ContactInfo VARCHAR,

Preferences VARCHAR,

PurposeOfStay VARCHAR,

Occupation VARCHAR,

DateOfBirth DATE,

EventParticipationID INT,

ReservationID INT,

BillingID INT,

PRIMARY KEY (GuestID),

FOREIGN KEY (EventParticipationID) REFERENCES EventParticipationFact(EventParticipationID),

FOREIGN KEY (ReservationID) REFERENCES ReservationFact(ReservationID),

FOREIGN KEY (BillingID) REFERENCES BillingFact(BillingID)

);

1. **RoomDim:**

CREATE TABLE RoomDim (

RoomID INT,

RoomType VARCHAR,

BedType VARCHAR,

Smoking BOOLEAN,

BaseRate DECIMAL,

MaxGuests INT,

LocationID INT,

EventParticipationID INT,

ReservationID INT,

BillingID INT,

AmenityID INT,

PRIMARY KEY (RoomID),

FOREIGN KEY (LocationID) REFERENCES LocationDim(LocationID),

FOREIGN KEY (EventParticipationID) REFERENCES EventParticipationFact(EventParticipationID),

FOREIGN KEY (ReservationID) REFERENCES ReservationFact(ReservationID),

FOREIGN KEY (BillingID) REFERENCES BillingFact(BillingID),

FOREIGN KEY (AmenityID) REFERENCES AmenityDim(AmenityID)

);

1. **LocationDim:**

CREATE TABLE LocationDim (

LocationID INT,

BuildingHotelName VARCHAR,

BuildingLocationName VARCHAR,

FloorNum INT,

ProximityFeatures VARCHAR,

NumberRoomsTotal INT,

RoomID INT,

ReservationID INT,

PRIMARY KEY (LocationID),

FOREIGN KEY (RoomID) REFERENCES RoomDim(RoomID),

FOREIGN KEY (ReservationID) REFERENCES ReservationFact(ReservationID)

);

1. **ReservationFact:**

CREATE TABLE ReservationFact (

ReservationID INT,

StayDuration INT,

TotalCost DECIMAL,

CheckInDate DATE,

CheckOutDate DATE,

UsedHotelServices BOOLEAN,

RoomID INT,

GuestID INT,

LocationID INT,

PRIMARY KEY (ReservationID),

FOREIGN KEY (RoomID) REFERENCES RoomDim(RoomID),

FOREIGN KEY (GuestID) REFERENCES GuestDim(GuestID),

FOREIGN KEY (LocationID) REFERENCES LocationDim(LocationID)

);

1. **EventParticipationFact**

CREATE TABLE EventParticipationFact (

EventParticipationID INT,

EventID INT,

GuestID INT,

ParticipationDate DATE,

PRIMARY KEY (EventParticipationID),

FOREIGN KEY (EventID) REFERENCES EventDim(EventID),

FOREIGN KEY (GuestID) REFERENCES GuestDim(GuestID)

);

1. **BillingFact**

CREATE TABLE BillingFact (

BillingID INT,

TotalAmount DECIMAL,

PaymentMethod VARCHAR,

GuestID INT,

ReservationID INT,

PRIMARY KEY (BillingID),

FOREIGN KEY (GuestID) REFERENCES GuestDim(GuestID),

FOREIGN KEY (ReservationID) REFERENCES ReservationFact(ReservationID)

);

1. **ServiceDim**

CREATE TABLE ServiceDim (

ServiceID INT,

ServiceType VARCHAR,

ServiceDescription VARCHAR,

Cost DECIMAL,

BillingID INT,

PRIMARY KEY (ServiceID),

FOREIGN KEY (BillingID) REFERENCES BillingFact(BillingID)

);

1. **EventDim**

CREATE TABLE EventDim (

EventID INT,

EventType VARCHAR,

EventDate DATE,

LocationID INT,

PRIMARY KEY (EventID),

FOREIGN KEY (LocationID) REFERENCES LocationDim(LocationID)

);