PIP4004 - INTERNSHIP
Review-1 Presentation
HOTEL HOSPITALITY DATA ANALYSIS

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Under the Supervision of,

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About Company or Organization

Uptoskills is the leading Skill Tech platform designed to help individuals and organizations succeed in the digital age. We offer a wide range of customized training programs designed to enhance skills and advance careers, and our expert trainers and career advisors work closely with clients to provide ongoing support and guidance

They aim to help individuals and organizations acquire new skills and stay up-to-date with the latest industry trends. Their platform provides flexible and affordable learning options, including video courses, interactive quizzes, and personalized feedback. Uptoskills has a vast library of courses from top instructors and industry experts, making it a great resource for anyone looking to enhance their skills and advance their careers

Working domain or the technology

Internship Domain: Data Analyst (UptoSkills)

- Started: 21st January 2025

- Completion :21stApril 2025

- Features of Data Mining: Extracts useful insights from large datasets Identifies patterns, correlations, and trends Uses techniques like clustering, classification, and regression Enhances decision-making with predictive analytics

- Importance of Data Mining: Helps businesses make data-driven decisions Improves customer segmentation and market analysis Detects fraud and anomalies in datasets Supports AI & Machine Learning model development

- Current Work: Focused on data mining techniques to process and analyze structured/unstructured data for meaningful insights

About your team and reporting Manager

Team Structure and Reporting Workflow

• The team consists of 10 members, including data analysts and researchers.

• Team Leader has been assigned to oversee the project and provide guidance.

• **Project Involvement:**

• Currently working on Data Mining, focusing on extracting meaningful insights from large datasets.

• **Reporting and Work Submission:**

• All tasks and assignments are submitted directly to the Team Leader for review.

• The Team Leader is responsible for evaluating work, providing feedback, and ensuring project
  alignment

Challenges Faced in Internship

1. Data Availability Issues:

• During data mining, one of the primary challenges encountered was the lack of detailed information for certain colleges.

• Some institutions did not have publicly accessible data, making it difficult to gather comprehensive insights.

2. Limited Data for Assigned Districts:

• The district assigned for analysis had a very small number of colleges, leading to insufficient data for meaningful pattern recognition and analysis.

• This required additional efforts in identifying alternative data sources and refining the approach.

Problem Identification and Problem Statement

Problem Identification

The hospitality industry faces challenges such as fluctuating occupancy rates, intense competition, and the need to meet evolving customer expectations. Traditional methods of data analysis are often time-consuming and lack the agility required to respond to dynamic market conditions. Without a centralized and interactive data visualization tool, hotel managers struggle to extract meaningful insights from vast amounts of data.

Problem Statement

How can hotel hospitality data be effectively analyzed and visualized using Power BI to improve decision-making, enhance customer satisfaction, and optimize operational efficiency?

Objectives of the work

1. To analyze hotel hospitality data to identify trends and patterns in guest behavior.

2. To create an interactive Power BI dashboard for real-time data visualization and reporting.

3. To provide actionable insights for improving customer satisfaction and operational efficiency.

4. To optimize revenue management strategies through data-driven decision-making.

5. To evaluate the impact of data analytics on hotel performance metrics.

Literature Review

The hospitality industry has increasingly adopted data analytics to gain a competitive edge. Previous studies highlight the importance of data-driven strategies in improving customer satisfaction, optimizing pricing models, and enhancing operational efficiency. Research by Smith et al. (2020) emphasized the role of business intelligence tools in identifying trends and predicting customer behavior. Similarly, Jones and Brown (2021) demonstrated how data visualization tools like Power BI can transform raw data into actionable insights. This project builds on these findings by applying Power BI to analyze hotel hospitality data, focusing on key performance indicators (KPIs) such as occupancy rates, average daily rate (ADR), and guest feedback scores.

Proposed System / Work

1.Data Collection and Integration:

- Gather data from various sources and store it in a centralized database or cloud storage.

2.Data Processing:

- Clean, transform, and model the data using Power BI.

3.Dashboard Development:

- Create visualizations and design the dashboard layout.

- Add interactive features such as filters and drill-down options.

4.Testing and Validation:

- Test the dashboard for accuracy, performance, and usability.

- Validate the insights with stakeholders.

Proposed System / Work

5. Deployment:

- Publish the dashboard to Power BI Service.

- Train hotel staff on how to use the dashboard effectively.

6.Monitoring and Maintenance:

- Continuously monitor the dashboard's performance and update it as needed.

- Incorporate feedback from users to improve functionality.

System Requirements

1. Processor: Intel Core i3 or AMD Ryzen 7.

2. RAM: 16 GB or higher.

3. Storage: 500 GB SSD or higher.

4. Graphics: Dedicated GPU with at least 2 GB VRAM.

5. Internet Connection: Fiber or high-speed broadband.

Advantages of Proposed System/Work

1.Improved Decision-Making:

- Provides real-time insights and actionable recommendations.

2.Enhanced Customer Satisfaction:

- Identifies guest preferences and pain points to improve service quality.

3.Optimized Revenue Management:

- Enables dynamic pricing strategies based on demand and occupancy trends.

4.Operational Efficiency:

- Identifies bottlenecks and resource gaps to streamline operations.

5.Scalability:

- Can be scaled to accommodate multiple properties or larger datasets.

Internship Road Map

Note: Write in the below table what u will be achieving in each review

Review 0	Review 1	Review 2	Review 3
Company Profile Domain and work assigned Working team and reporting manager	Title, abstract Review of literature Problem identification and formulation of problem statement	Design and implementation with methods Algorithm Details50% implementation details and live demo and softcopy to be submitted	Algorithm Details Source Code Details 100% implementation details Live Demonstration of the project

Github Link

- https://github.com/Fareed32

Q&A

Thank you !!