BI and Analytics Use Cases

Use Cases Details

الهيئة السعودية للتخصصات الصحية
Saudi Commission for Health Specialties

Assessment Department Project : Providing a comprehensive view of the performance of practitioners and trainees in exams, highlighting areas of strength and weakness, and comparing their performance with their peers in universities and other training centers.

1- Objective Aimed to Be Achieved

1.**Comprehensive Performance Overview**: Analyze practitioners' and trainees' exam results to monitor competency.

2.**Identifying Weaknesses**: Highlight areas for improvement to boost performance.

3.**Benchmarking**: Compare performance with peers in universities and training centers.

4.**Improving Quality**: Use data to enhance curricula and training methods.

5.**Transparency**: Ensure fair and objective evaluations to build trust.

6.**Informed Decisions**: Provide insights to guide strategic improvements.

7.**Competitiveness**: Enhance rankings by improving trainee efficiency.

2-Type of Analytics Leveraged

- **Exploratory analysis**: Identifying new patterns and common questions from user inquiries.

- **Descriptive analysis**: Simplify data to understand what has happened using basic statistics like averages, ratios, and standard deviations.

- **Diagnostic analysis**: Investigate the causes behind identified phenomena, helping to understand the root reasons for high or low performance..

Assessment Department Project : Expected Benefits and Business Value (ROI) and Stakeholders Involved

3-Expected Benefits and Business Value (ROI)

1.Achieving a Comprehensive Performance Vision: Provide detailed reports that outline the performance of trainees and practitioners based on exam results.

2.Enhancing Individual Efficiency: Accurately identify strengths and weaknesses, enabling trainees and practitioners to improve their performance.

3.Improving Education and Training Levels: Upgrade curriculum and teaching methods to meet excellence standards.

4.Fostering Positive Competition: Compare the performance of universities and training centers with others to encourage improvement.

5.Building Trust in the Education and Training System: Ensure fair and transparent evaluations to enhance credibility.

6.Increasing Beneficiary Satisfaction: Provide clear and constructive feedback to practitioners and trainees to motivate continuous improvement.

4-Stakeholders Involved

Implementation Stakeholders:

- Data Solutions Team (Use Case Owner)
- Assessment Department
- IT Department

Target Consumers:

- University Deans and DIO
- Assessment Department

Assessment Department Project : Business Requirements, Data Sources, Technologies Required

6-Business Requirements

1.Performance Analysis Reports:

•Provide detailed reports on practitioners' and trainees' performance.

2.Benchmarking Comparisons:

•Enable performance comparisons between universities and training centers.

3.Identifying Strengths and Weaknesses:

•Use analytical tools to pinpoint areas needing improvement.

7-Data Sources

• **Multiple systems** (Mumaris Plus, Matching System, Training System, Exam Results, Tawasul)

8-Technologies Required

• **Data Integration Systems:** Tools to consolidate data from multiple systems in real-time.

• **Visualization and Reporting Tools:** Tableau for designing advanced dashboards.

• **Backend Infrastructure:** storage and processing for seamless real-time operations.

AI Agent: system offers secure access, supports inquiries, and streamlines tasks with advanced analytics, improving decision-making, efficiency, and user experiences..

1- Objective Aimed to Be Achieved

1. **Empowering employees:** Providing access to internal information based on the permissions granted to each employee.

2. **Supporting practitioners**: Allowing inquiries about the regulations and services.

3. **Enabling practitioners to follow up** on their requests and review their information registered in the systems.

3. **Personal assistant**: Helping employees in completing their daily work by providing direct support.

2-Type of Analytics Leveraged

- **Exploratory analysis**: Identifying new patterns and common questions from user inquiries.

- **Descriptive analysis**: Summarizing data on the number of requests, inquiries, and the most common topics.

- **Diagnostic analysis**: Knowing the reasons for incomplete requests or failure to provide information correctly.

- **Predictive Analysis**: Predicting user needs based on previous inquiries.

3-Expected Benefits and Business Value (ROI)

1. Improved Efficiency: Faster access to information and streamlined workflows reduce time and effort for employees and practitioners.

2. Enhanced Productivity: Personal assistance and role-based access enable employees to focus on critical tasks.

3. Better Practitioner Experience: Quicker inquiry resolutions and proactive support improve satisfaction

4. Cost Savings: Automation and error reduction lower operational costs.

5. Data-Driven Insights: Analytics provide actionable trends, enabling smarter decisions and continuous improvement.

4-Stakeholders Involved

Implementation Stakeholders:

- Data Solutions Team (Use Case Owner)

- Customer Care Department

- IT Department

Target Consumers:

- Employees

- Practitioners

AI Agent: Business Requirements, Data Sources and Technologies Required

6-Business Requirements

1. **Secure Access:** Role-based, secure access for employees and practitioners..
2. **Service Integration**: Real-time updates and seamless system integration.
3. **Practitioner Support**: Handle inquiries, track requests, and allow data review.
4. **Personal Assistant**: Task support for employees to enhance efficiency.
5. **Analytics**: Enable exploratory, descriptive, diagnostic, and predictive insights.
6. **Reporting**: Generate performance and effectiveness reports.
7. **User Interface**: Simple and intuitive design for easy navigation.
8. **Technology Integration**: Connect with systems for data access.
9. **Data Security**: Robust backend infrastructure ensuring data security and compliance.

7-Data Sources

- **Multiple systems** (Mumaris Plus,, ERP, Matching System, Training System, Tawasul)
- **Master Data** A master database containing all practitioners' data and information linked to all systems.

8-Technologies Required

1. **Natural Language Processing** (**NLP**):To understand natural language and process user queries.
2. **Machine Learning Framework** (**ML**):To improve the system's self-learning and provide accurate responses.
3. **Backend Infrastructure**:To manage data and process requests.
4. **Integration Tools**: To connect the system with other databases and services.
5. **Frontend Technologies**:To design a simple and easy-to-use user interface.

Practitioner 360: Provide a 360-degree view of practitioner information to assist customer service staff.

1- Objective Aimed to Be Achieved

• Enhance customer service by providing a comprehensive 360-degree view of practitioner data.

• Accelerate inquiry handling through quick and accurate solutions.

• Centralize and integrate data from multiple systems for easy access.

• Provide updates on support tickets and track their progress effectively.

2-Type of Analytics Leveraged

• **Descriptive Analytics**: Aggregate and display real-time data about practitioners and ticket statuses.

• **Diagnostic Analytics**: Identify reasons behind unresolved tickets or delays.

• **Predictive Analytics**: Use AI-driven insights to predict call priorities and recommend solutions.

3-Expected Benefits and Business Value (ROI)

• **Streamlined Operations**: Faster access to comprehensive practitioner data, reducing average handling times.

• **Enhanced Practitioner Satisfaction**: Quicker response times, leading to improved service experiences.

• **Actionable Insights:** Recommendations for optimal resolutions improve decision-making quality.

• **Cost Savings:** Reduce operational inefficiencies by minimizing time spent searching across multiple systems.

4-Stakeholders Involved

Implementation Stakeholders:

• Data Solutions Team (Use Case Owner):

• Customer Care Department.

Target Consumers:

• Customer Care employees:

• Practitioners

Practitioner 360: Business Requirements, Data Sources and Technologies Required

6-Business Requirements

• Develop a centralized dashboard to aggregate practitioner data from multiple systems.

• Ensure real-time data synchronization and visibility.

• Integrate ticketing and practitioner systems to track the status and progress of tickets.

• Implement AI capabilities for prioritization and resolution recommendations.

• Provide a user-friendly interface for Customer Care employees.

• Ensure role-based access to maintain data privacy and security.

7-Data Sources

• **Mumaris Plus System:** Core practitioner database.

• **Ticketing System (Tawasul):** Information about support tickets and their progress.

• **Other Relevant Databases**: Any additional commission databases linked to practitioners, such as Training or CPD systems.

8-Technologies Required

• **Data Integration Systems:** Tools to consolidate data from multiple systems in real-time.

• **Visualization and Reporting Tools:** Tableau for designing advanced dashboards.

• **Backend Infrastructure:** storage and processing for seamless real-time operations.

THANK YOU.