Strategy > Model > Process > System

Strategy:

What?

The main objective is to develop a comprehensive and highly effective Business Intelligence (BI) system that provides an exceptional music experience to the members of the music enthusiasts' community.

Why?

This initiative arises from the need to elevate the quality of the members' music experience while fostering interaction among them and promoting higher user retention. We recognize the diversity of musical tastes within the community and the importance of providing highly personalized music recommendations.

How?

To fulfill these strategic objectives, we have identified several key needs, including the creation of an advanced music recommendation system, efficient management of shared musical resources, and effective promotion of music-related events and concerts.

Model:

What?

The core of this project will be the implementation of a high-performance database designed specifically for the music enthusiasts' community.

Why?

This model supports the strategy of personalization and resource management by enabling the collection and storage of highly relevant data. This includes detailed member profiles, listening histories, music preferences, as well as information about music events and shared resources.

How?

The data infrastructure will be based on a robust solution like SQL Server to ensure data integrity, accessibility, and constant updating.

Process:

What?

We will implement a meticulous and continuous data collection, analysis, and management process.

Why?

This process is essential to deliver high-quality personalized music recommendations and ensure effective management of shared resources in the community.

How?

The process will include the constant collection and analysis of member data, using advanced machine learning algorithms to generate accurate and relevant recommendations. Additionally, mechanisms for tracking events and resources will be established to ensure their availability and updates.

System:

What?

The resulting system will be a comprehensive online platform and a personalized music recommendation application.

Why?

This system fully supports the strategy by providing an interactive online platform where members can connect, share music, discover new artists, and receive highly tailored music recommendations based on their individual tastes.

How?

The technological infrastructure will include cutting-edge tools such as Microsoft Power BI to deliver real-time personalized music recommendations and Microsoft Office 365 applications for data management and collaboration. Additionally, a robust database (SQL Server) will be maintained, serving as both an information repository and the core of data processing.

Expected Outcomes:

Member Participation and Retention: We anticipate a significant increase in member participation and retention due to an exceptional user experience and highly relevant music recommendations.

Personalized Music Recommendations: Members will enjoy real-time personalized music recommendations based on their music preferences, previous activities, and current trends.

Active and Engaging Platform: The community's online platform will become an active and engaging space where music enthusiasts can connect, share their passion, and collaboratively discover new music.

SMPS Research Q and A:

Q1: Existing Systems: Do we already have one?

A1: No - research indicates that there are no similar applications currently in use within the community, and there is no knowledge of similar tools being developed in the past. Our community does not possess a centralized data system; data is stored across various systems.

Q2: Feasibility: Any Known Data or Functionality Gaps?

A2:

Data Gaps: Currently, no data gaps exist. The required data points are accessible within member profiles and community activity records.

Functionality Gaps: There are no known functionality gaps; we have the necessary software licenses and expertise in-house to execute this project.

Q3: Sustainability: Ongoing Resource Requirements? Cycle?

A3:

Hardware: No additional hardware is anticipated beyond what we already have.

Personnel: Initially, a single data engineer should be capable of fulfilling the roles of a database administrator (DBA), data architect, and data engineer. Depending on community growth, additional staff and task distribution may be required in the future.

Cycle: The expectation is that this application will undergo regular updates, with the frequency aligning with significant changes in community data, likely on a monthly basis.

Q4: Stability: What Might Threaten the Project's Existence Once Built?

A4: Possible threats include server outages and hardware issues. However, data availability within the community's systems is generally stable, with robust resiliency.

Q5: Vendor Options: Are Any Being Considered?

A5: We are considering the possibility of utilizing cloud-based solutions such as Microsoft Azure for hosting the database. A cost/benefit analysis will be performed to determine its feasibility.

Q6: Horizontal Expansion Requirements: Any New FTE, Hardware, or Software Resources?

A6: No additional full-time employees (FTE) are foreseen at this stage. Hardware requirements are expected to remain unchanged, and existing software licenses should suffice.

Q7: Vertical Dependencies: Anyone Else Involved? Especially Someone Higher Up?

A7: Yes, there are stakeholders involved in this process. Community leaders and key members will be engaged, and cooperation from the community data gatekeepers is crucial for project integration.

Q8: Community Growth Rate Scenarios

A8: It's possible that substantial community growth could impact the project's business rules, particularly regarding the ideal inventory of community resources. In the event of rapid growth, the community may opt to expand its resources and capabilities to meet increased demand and engagement.