

1. Introduction

The Discover Tshwane project, developed by Tshwane Tech Transformers during a 3-day hackathon, aims to create a centralized system for accessing and managing cultural, heritage, recreational, and museum facilities in Tshwane. This report identifies the gaps between the current state and the desired future state of the system.

2. CURRENT STATE

Problem: Difficulty accessing and managing cultural, heritage, recreational, and museum facilities in Tshwane.

Existing Solutions:
Limited or fragmented information sources, lack of centralized booking and engagement platforms.

3. DESIRED FUTURE STATE

- **Solution**: A centralized system for cultural, heritage, and recreational information.
 - Features: Viewing facilities, booking events, engaging with the community, and virtual tours.
 - Commercialization: Subscriptions, hosting commission, USSD rates.

4. IDENTIFIED GAPS



4.1 Information Accessibility

Current State: Information about facilities is scattered and difficult to access.

Desired State: A centralized platform providing comprehensive and up-to-date information.

Gap: Lack of a unified system to consolidate and present information.



4.2 Booking System

Current State: No centralized booking system for events and facilities.

Desired State: Real-time booking capabilities with confirmation and notification features.

Gap: Absence of an integrated booking system.



4.3 Community Engagement

Current State: Limited tools for community interaction and event participation.

Desired State: Forums, discussion boards, and feedback mechanisms to enhance community engagement.

Gap: Lack of community engagement features.



4.4 Virtual Tours

Current State: No virtual tour options for cultural and heritage sites.

Desired State: High-quality virtual tours with interactive elements.

Gap: Absence of virtual tour capabilities.

5. NON-FUNCTIONAL GAPS



5.1 Performance

current State: Existing systems may not handle moderate to high traffic efficiently.

Desired State:

Efficient performance under moderate traffic volumes.

Gap: Need for performance optimization.



5.2 Security

Current State: Basic data privacy and protection measures may be insufficient.

Desired State:

Enhanced data privacy and protection.

Gap: Need for improved security measures.



5.3 Scalability

Current State: Existing systems may not be scalable.

Desired State: Scalable system to accommodate future growth.

Gap: Lack of scalability in current systems.



5.4 Reliability

Current State: Potential stability

issues and downtime.

Desired State: Stable system with minimal downtime.

Gap: Need for increased system reliability.

6. RECOMMENDATIONS



Develop a Centralized Information Platform: Consolidate all relevant information into a single, user-friendly platform.



Implement a Real-Time Booking System: Integrate booking capabilities with confirmation and notification features.



Enhance Community
Engagement Tools: Add
forums, discussion boards,
and feedback
mechanisms.



Introduce Virtual Tours: Develop high-quality virtual tours with interactive elements.



Optimize Performance: Ensure the system can handle moderate traffic efficiently.



Improve Security
Measures: Enhance data
privacy and protection
protocols.



Ensure Scalability: Design the system to be scalable for future growth.



Increase Reliability: Focus on system stability and minimize downtime.



7. CONCLUSION

The Discover Tshwane project aims to bridge the gaps identified in this report by developing a centralized, user-friendly platform that enhances access to cultural, heritage, and recreational facilities in Tshwane. By addressing these gaps, the project seeks to improve user engagement and provide a valuable resource for the community.