

# Research Document

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## User Engagement Strategies

*(8 actionable user engagement strategies for higher retention 2022)*

### 1. Point-Based Reward System:

- Implement a system where users earn points for each issue they report. This creates a direct incentive for users to engage with the application, as they can see their points accumulate with each contribution. The more issues they report, the more points they earn, motivating them to participate actively in reporting municipal problems.

### 2. Achievement Badges:

- Introduce achievement badges that users can earn based on their reporting activity. For example, users could receive badges for reporting their first issue, reaching a certain number of reports, or reporting issues in different categories. These badges serve as a form of recognition and encourage users to engage further by striving to collect more badges.

### 3. Leaderboards:

- Create a leaderboard that displays the top users based on the number of points earned through reporting issues. This competitive element can motivate users to participate more actively, as they may want to see their names on the leaderboard and compete with friends or community members. Leaderboards can foster a sense of community and friendly competition.

### 4. Milestone Rewards:

- Establish milestone rewards that users can unlock after reaching specific point thresholds. For example, after earning 100 points, users could receive a small reward, such as a discount on municipal services or recognition in community newsletters. These rewards provide additional motivation for users to continue engaging with the application.

## 5. Feedback and Progress Tracking:

- Implement a feature that allows users to track their progress in accumulating points and achieving milestones. Providing users with visual feedback on their contributions, such as progress bars or point totals, enhances their engagement by showing them the impact of their actions. This transparency encourages users to continue reporting issues to see their progress grow.

Total Words of Explanation (Excluding Bibliography): 489

# Explanation of the Chosen User Engagement Strategy: Gamification

For a Municipal Service application, enhancing user engagement is crucial for ensuring that citizens actively participate in reporting issues and utilizing the services provided. The strategy that has been identified & implemented is a gamification feature, which allows users to earn "Report Points" for every issue they report.

## Benefits of Gamification in Municipal Services (Tolmie et al., 2013)

1. **Increased Participation:** Offering Report Points for every issue reported means users are more likely to engage with the application. This increased participation can lead to a more reported issues, allowing municipal authorities to address problems more effectively and efficiently.
2. **Enhanced User Experience:** Gamification elements can make the process of reporting issues more enjoyable. Users will feel a sense of accomplishment as they acquire points and watch the progress bar dynamically increase as they fill in a report. This transforms a boring task into a more engaging activity.
3. **Feedback and Recognition:** Providing users with immediate feedback through points allows them to recognise their contributions, and not only validates their efforts but also encourages continued engagement. This feedback loop is essential for maintaining user interest over time.
4. **Data Collection and Insights:** The gamification feature can also serve as a valuable tool for municipalities to gather data on user engagement and the types of issues reported. By analysing this data, municipalities can better understand community needs and prioritize resources accordingly.

## Implementation Considerations

To effectively implement the gamification feature, several considerations must be addressed:

- **User Interface:** The application should have an intuitive interface that clearly displays the user's current points, achievements, and any available rewards. This visibility will motivate users to continue participating. To achieve this I have implemented a count in the navbar, that updates live when a user reports an issue.
- **Tracking Reported Issues:** To calculate and keep track of the user's reported issues for the Report Points feature, the application will need to store necessary data. Instead of linking the application to a database, I've opted to store the reported issues in a .csv file. This allows easy Reading and Writing of user data (reported issues) to calculate the Report points.
- **Viewing Reported Issues:** An additional page, Reported Issues, is used to display all the reported issues the application has saved using the implemented data structures. The page aids in enhancing the feedback loop as user's can see their reported issues and their current status.

## Conclusion

Incorporating a gamification feature into the municipal services application represents a strategic approach to enhancing user engagement. By allowing users to earn Report Points for their contributions, the application not only encourages active participation but also fosters a sense of community and ownership among residents. This strategy aligns with the goals of improving service delivery and citizen engagement, ultimately leading to a more responsive and effective municipal services platform (Claussen et al., 2013)

## Bibliography

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