

# Spotify PRD

## Problem Definition

Users aged 18-24 are dissatisfied with the free tier of Spotify due to poor song recommendations and excessive ads, leading to low conversion to premium. This results in decreased customer retention and a higher churn rate within this demographic.

What is the problem ?	User are not liking the free tier because of poor song recommendation and bulk of ads but don't find worth in buying premium
Who are facing the problem	The users from age group 18-24 who like listening to songs but only listen 0-120 minutes per day on the platform
What is the business value that will be unlocked by solving the problem?	Solving this problem will lead to increased customer retention and less churn rate thus improving time spent listening on the platform which will lead to increased revenue of the business
How will the target users benefit if the problem is solved?	The target user will have a better song recommendation and discoverability, and less ads resulting in improved customer satisfaction.
Why is it urgent to solve this problem now?	The segment of age 18-24 is roughly 40% of the MAU of spotify. Catering to low intensity listeners, users of this segment will create an impact of 5.60% on the total time spent listening on the application.

## Goals

- **Increase Time Spent Listening:** Improve user engagement by enhancing the listening experience with personalized recommendations, reduced ads, rewarding consistent activity.
- **Increase User Retention:** Address key pain points in the free tier to keep users engaged and loyal, ensuring long-term activity and increased lifetime value.
- **Decrease Churn Rate:** Create a more satisfying experience by resolving free-tier issues and showcasing premium benefits, reducing the likelihood of users leaving the platform.

Functional Metrics	Non functional metrics
1. Time Spent Listening	Screen Load time
2. Avg Session Duration	API response time
3. Conversion to Premium Users	Memory utilisation
4. Bounce Rate	

## Scope

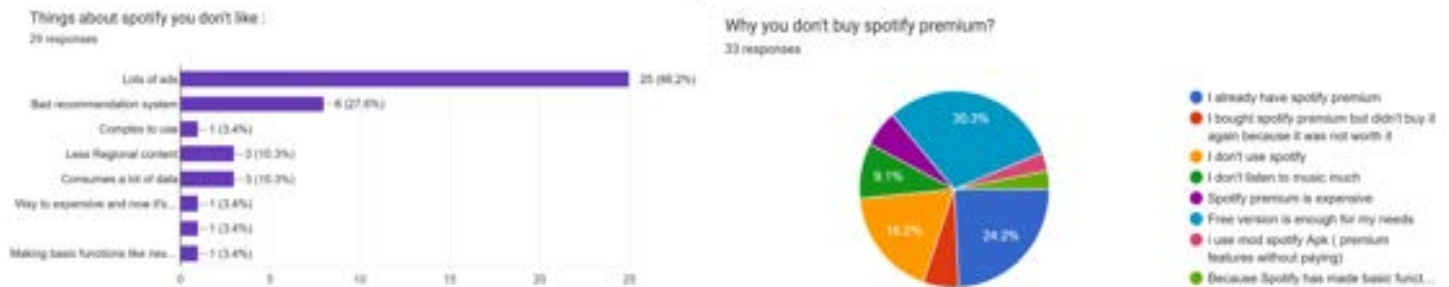
As of now we only focus on the increasing the time spent listening of the existing users and not focus on onboarding new users

## Validation of the problem

We understood from the user research that:

1. 86% of the users feel that there are a lot of ads on the platform
2. 28% users feel that spotify has a poor music recommendation system
3. But only 24% of the people have spotify premium
4. But only 6% of the users feel that spotify premium is expensive.

This indicates that users have the need for premium but they don't buy it because they don't understand what premium offers



### Understanding the target audience

- User segment in focus and the size of the segment :
- MAU of Spotify India : 60 Mn
- Total MAU Spotify India from 18-24 age group = 40% of 60 M = 24M

Categorisation	Categorisation on TSL	Expected increase in TSL	% Impact on total TSL
High intensity users [above 2hrs]	42%	5%	3.35%
Medium intensity users [1hr - 2hr]	22%	20%	4.20%
Low intensity users [0- 1hr]	36%	50%	5.70%
Size of focus segment	36% of 24M = 8.64M		

**Conclusion :** Since the user segment from 18 - 24 with low intensity users who listen Spotify 0 to 1 hour has the highest impact of 5.70% to improve time spent listening, this user segment has been chosen.

## User Personas

### Persona 1 : Casual Listener "Sneha"

**Age:** 21 years

**Profile:** College student with a busy schedule, listens to music occasionally during commute or study breaks.

#### Listening Behavior:

- TSL: Less than 1 hour per day.
- Often switches between Spotify and other platforms (e.g., YouTube or Gaana) due to dissatisfaction with Spotify's free tier.

#### Typical Journey:

- Opens Spotify during commute or study breaks to find something engaging to listen to.
- Experiences a **poorly curated playlist** or irrelevant recommendations, resulting in frustration.
- Encounters multiple ads within a short session, making the listening experience disruptive.
- Either switches to another platform or stops listening altogether.

#### Goals:

- Find personalized playlists and recommendations quickly.
- Enjoy uninterrupted, ad-free music even if listening occasionally.

#### Pain Points:

- Recommendations are generic, leading to repetitive or irrelevant playlists.
- Frequent ads disrupt short listening sessions, reducing enjoyment.
- Premium seems too costly for someone who listens less than an hour a day.

### Persona 2 : Social Listener "Arjun"

**Age:** 23 years

**Profile:** Recent graduate who listens to music casually while socializing with friends or relaxing.

#### Listening Behavior:

- TSL: Around 30 minutes daily.
- Enjoys trending music and playlists shared by peers.

#### Typical Journey:

- Opens Spotify during a hangout or while relaxing.
- Struggles to discover new music aligned with their taste; playlists feel generic and lack personalization.
- Finds the frequent ads annoying and doesn't consider Premium worth the cost for occasional listening.
- Leaves Spotify unsatisfied, reducing time spent on the platform over time.

#### Goals:

- Discover trending music and playlists relevant to their social circle.
- Spend more time on Spotify if the experience feels valuable and engaging.

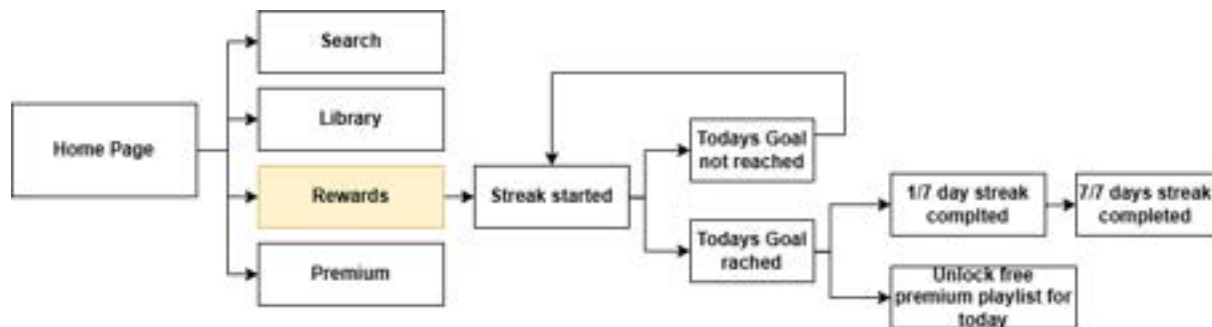
#### Pain Points:

- Poor discoverability of trending or personalized playlists limits enjoyment.
- Ads disrupt the flow of music, making the experience less enjoyable during social gatherings.
- Premium does not seem worth purchasing for sporadic listening.

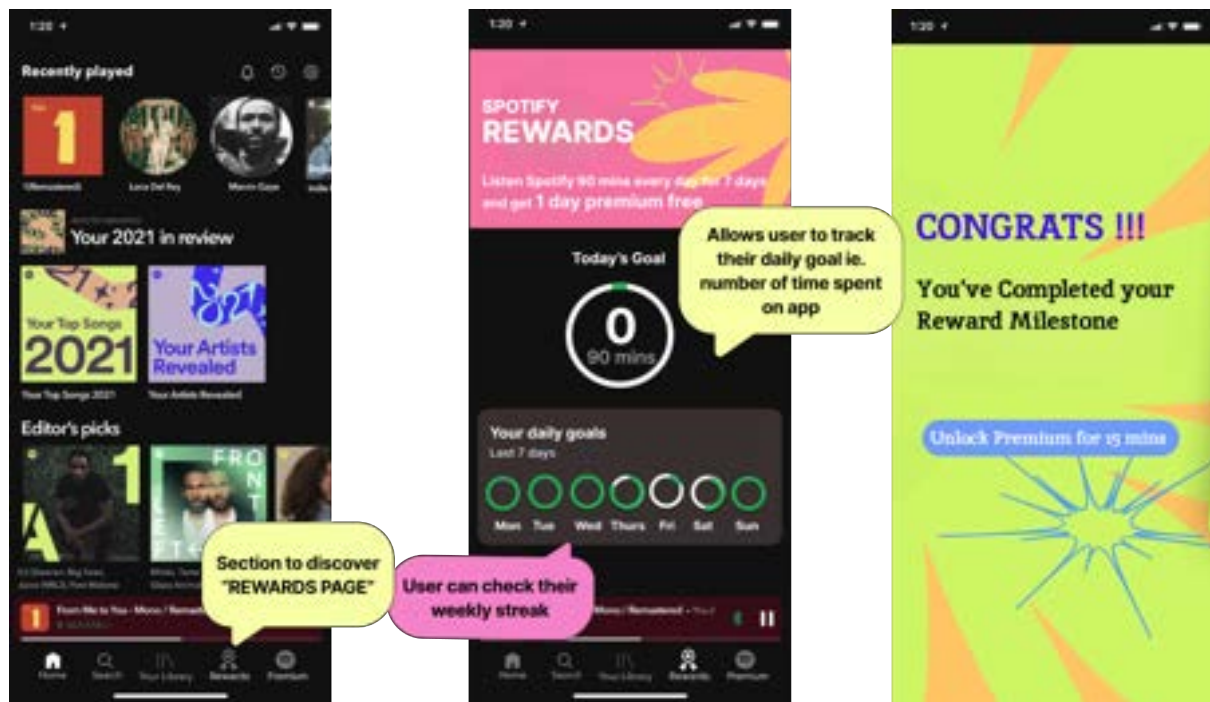
## Proposed Solutions :

Solution 1: Reward System for Users	Solution 2: The Mood AI Chat Bot	Solution 2: Hyper Localised Playlist
<p><b>Daily Reward:</b> If a user completes 90 minutes of listening in a single day, they will automatically gain access to one premium playlist for that day. This incentive aims to increase the user's listening time, enhance content discovery, and encourage deeper exploration of Spotify's features.</p> <p><b>Weekly Reward:</b> A free day of Spotify Premium will be offered for users who consistently complete the 90-minute listening requirement for seven consecutive days. This not only rewards sustained engagement but also highlights the benefits of premium features, fostering greater awareness and encouraging premium subscriptions.</p> <p>This reward system aims to boost user retention, reduce bounce rates, and enhance overall user experience on Spotify.</p>	<p>This solution involves the implementation of an AI chatbot on Spotify that interacts with users to understand their current moods and preferences.</p> <p>The chatbot will ask users about their mood and the types of songs or podcasts they are interested in. Based on this input, it will generate a dynamic mood-based playlist tailored to the user's responses.</p> <p>This approach aims to enhance the quality of recommendations, improve content discoverability, and increase the user's time spent listening to the application.</p> <p>By offering personalized playlists, the solution not only enriches the user experience but also encourages deeper engagement with the app's content.</p>	<p>This solution introduces hyper-localized features on Spotify, utilizing user location data (with user consent) to curate music based on local trends, creating a community-centric discovery experience.</p> <p>Key aspects include: Trending in your neighborhood, which showcases popular songs in the user's city, and Local Artist Spotlights, highlighting emerging regional artists.</p> <p>The solution relies on location-based algorithms to detect trends, enabling Spotify to provide highly personalized content.</p> <p>This will improve the recommendation system of Spotify and ultimately improve Time Spent listening on the app</p>

## User Flow :



## Wireframe :



## Key Features:

1. **Enhanced Engagement:** Users are motivated to increase their daily listening time, fostering deeper interaction with Spotify.
2. **Personalized Rewards:** Access to premium playlists tailored to individual listening habits, enhancing the user experience.
3. **Immediate Benefits:** Provides instant rewards for achieving daily listening goals, encouraging consistent app usage.
4. **Long-Term Retention:** Offers incentives for seven-day streaks, helping to retain users by rewarding sustained activity.
5. **Increased Awareness:** Highlights the value of Spotify Premium features, potentially leading to more upgrades to premium subscriptions.
6. **Enhanced Content Discovery:** Promotes exploration of the app's full catalog by providing access to curated premium content.
7. **User Motivation:** Automatically tracks and rewards users for their listening habits, creating a sense of achievement and progress.

## Key Metrics

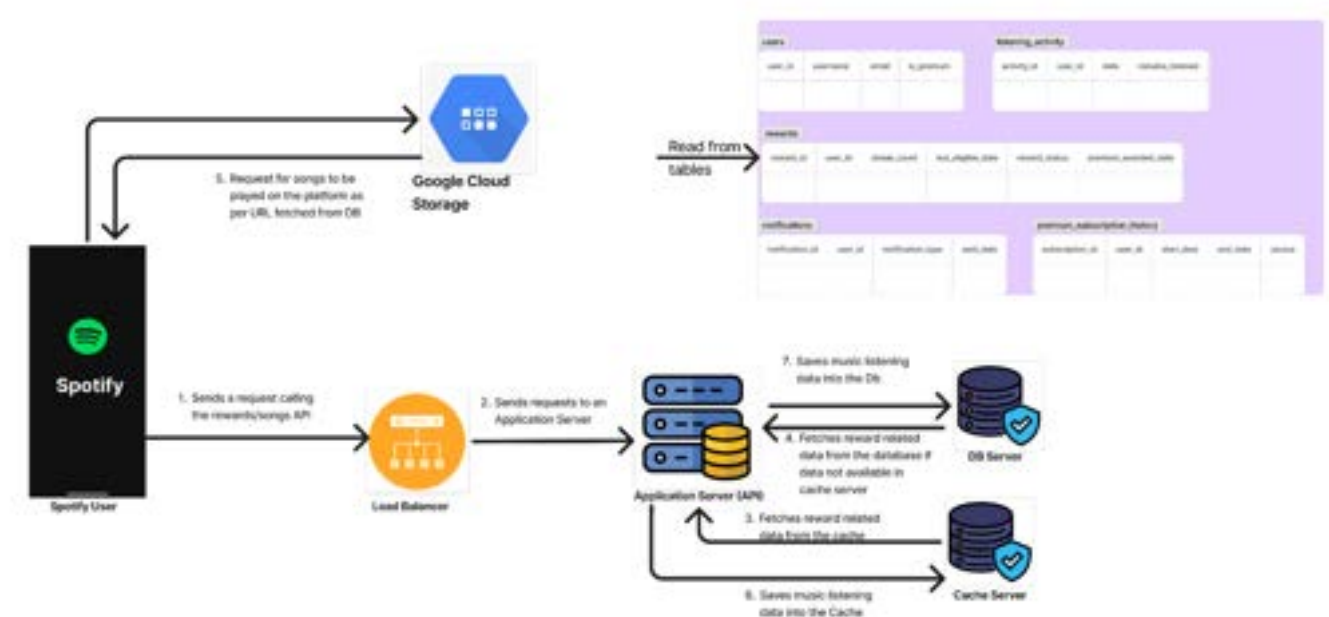
1. **Time Spent Listening:** Indicates overall user engagement with the app; a higher time spent suggests users are exploring more content.
2. **Avg Session Duration:** Reflects the quality of user interaction; a longer session duration shows that users are spending more time on the platform, which is beneficial for content discovery and retention.
3. **Conversion to Premium Users:** Measures the success of Spotify's premium subscription model; a higher conversion rate indicates effective monetization and value in premium features.
4. **Bounce Rate:** Indicates user retention and engagement; a lower bounce rate suggests that users are finding value in the app, staying longer, and engaging with its features.

## Why is this the best solution?

By introducing a reward system, it incentivizes increased daily listening and sustained engagement, which are critical for enhancing user retention and overall satisfaction. The immediate and personalized rewards make the user experience more engaging, encouraging users to explore Spotify's full catalog and consider premium subscriptions. This solution not only enhances user interaction with the app but also strengthens Spotify's value proposition, making it a more appealing choice compared to other music platforms.

Category	Details
Algorithm Changes	Track daily listening time and cumulative streak data.- Check reward eligibility based on daily and weekly goals.
Schema Changes	Add fields in user_profile: <b>daily_listening_time</b> , <b>current_streak</b> , <b>playlist_access_table</b>
New Data Types	Reward Status: Enum (pending, granted, expired).- Streak Counter: Integer for consecutive listening days
Notification Logic	Push notifications when users reach daily or weekly goals. Reminders to maintain streaks.
Integration	Provide temporary premium playlist access via tokens.- Enable 1-day premium subscription for streak completion.
Backend Enhancements	Background jobs to validate streaks, calculate rewards, and update user profiles.- Develop APIs for reward tracking, streak progress, and playlist access.

## System Design



## Key Metrics and Tracking Events

Metric	Tracking Events	Variables Captured
<b>Time Spent Listening</b>	- SessionStart (when a user starts playing a song). - SessionEnd (when a user stops playing).	- User ID- Timestamp- Track ID- Session duration (calculated as SessionEnd - SessionStart).
<b>Daily Listening Progress</b>	- DailyListeningUpdate (progress update event for daily goal).	- User ID- Listening time (cumulative for the day).
<b>Streak Tracking</b>	- StreakProgress (triggered at the end of the day).	- User ID- Streak count- Streak reset flag (if the streak is broken).
<b>Reward Unlock</b>	- RewardGranted (when a reward is unlocked).	- User ID- Reward type (playlist_access, premium_access).
<b>Playlist Access Usage</b>	- PlaylistOpened (when a user opens a premium playlist).	- User ID- Playlist ID- Timestamp.
<b>Premium Trial Activation</b>	- PremiumTrialStarted (when a 1-day premium trial is activated).	- User ID- Activation timestamp.
<b>Conversion to Premium Users</b>	- PremiumSubscriptionStarted (when a user purchases premium).	- User ID- Subscription type- Purchase timestamp.
<b>Bounce Rate</b>	- AppExit (when a user exits the app within a short time).	- User ID- Session duration (less than a threshold, e.g., 1 minute).

## Tracking Implementation

- Event Triggers:**
  - Use client-side SDKs (e.g., Google Analytics, Mixpanel) to send events when users perform specific actions (e.g., start a session, unlock rewards).
- Backend Logging:**
  - Implement server-side logging to ensure accurate tracking of key milestones (e.g., streak validation, reward granting).
- Variables and Context:**
  - Always capture metadata like device type, app version, and user location (if allowed) for deeper analysis.
- Real-Time Dashboards:**
  - Use analytics tools to visualize daily/weekly trends for metrics such as streak completions, reward claims, and playlist engagement.
- Error Tracking:**
  - Track failed events, such as streak resets or reward issues, to identify and fix system problems promptly.

## Edge/Error Cases Handling

### 1. Listening Time Not Captured Properly

- **Potential Issue:** User's listening time is not recorded due to app crashes, poor network connectivity, or server downtime.
- **Experience:**
  - Inform the user with a message: *"Some listening data could not be synced due to connectivity issues. Please check your network and continue listening."*
  - Retry syncing listening data once the app regains connectivity.
  - Implement local caching to temporarily store listening data until it can sync with the server.

### 2. Streak Reset Error

- **Potential Issue:** Streak is incorrectly reset despite the user meeting the daily listening goal.
- **Experience:**
  - Provide an option for the user to report the issue via support with visible logs of their streak progress.
  - Validate streak data manually or via backup logs to restore progress if an error is detected.
  - Notify the user: *"We detected an issue with your streak. Our team is reviewing it, and we'll update you soon."*

### 3. Reward Not Granted

- **Potential Issue:** Reward (premium playlist or 1-day premium) fails to unlock after completing the goal.
- **Experience:**
  - Display a notification: *"Your reward is on its way. If not received within an hour, contact support."*
  - Log the failed reward issue and trigger a retry mechanism to grant the reward.

### 4. Playlist Access Issues

- **Potential Issue:** Users cannot access unlocked premium playlists due to content restrictions or technical issues.
- **Experience:**
  - Show a fallback message: *"This playlist is temporarily unavailable. Explore similar playlists while we resolve this."*
  - Redirect the user to a curated set of free playlists to maintain engagement.

### 5. User Exceeds Time Goal Without Reward Recognition

- **Potential Issue:** User completes 90 minutes but does not see progress updated or reward unlocked.
- **Experience:**
  - Display an in-app notification: *"We're syncing your progress. Please wait a moment."*
  - Provide a manual refresh button for progress sync.
  - Ensure backend checks auto-correct missed progress data.

### 6. Duplicate Reward Issue

- **Potential Issue:** Users receive the same reward multiple times due to system bugs.
- **Experience:**
  - Inform the user politely: *"We detected a duplicate reward and have corrected it. Thank you for your understanding."*
  - Implement safeguards to prevent duplicate reward grants.



## 7. Premium Trial Activation Errors

- **Potential Issue:** 1-day premium trial does not activate after a 7-day streak.
- **Experience:**
  - Notify the user with: *"Your premium trial activation encountered an error. Please retry or contact support."*
  - Allow a retry mechanism for trial activation within 24 hours.

## 8. Unclear Progress Tracking

- **Potential Issue:** Users are confused about their progress toward daily or streak goals.
- **Experience:**
  - Provide real-time progress updates via a visible tracker in the app.
  - Add tooltips or FAQs explaining how the reward system works.

## 9. System Downtime

- **Potential Issue:** System maintenance or unexpected server outages prevent reward tracking or granting.
- **Experience:**
  - Notify users with: *"Our reward system is temporarily unavailable. Your progress is safe and will be updated shortly."*
  - Pause streak timers during downtime and provide grace periods once the system is restored.

By addressing these edge cases, the user experience remains seamless, fair, and supportive, even during unforeseen issues.

## Product Marketing for Reward System

### 1. In-App Notifications

- **Welcome Popup:** Introduce the reward system to all existing users through a visually engaging popup explaining the benefits (e.g., "Earn 1-Day Premium by Listening!").
- **Progress Updates:** Send real-time notifications to inform users of their daily listening progress and streak status.

### 2. Email and Push Campaigns

- **Email Blast:** Send targeted emails to the 18-24 demographic highlighting the rewards program and its benefits.
- **Push Notifications:** Alert users who listen less than 90 minutes daily with motivational nudges like, *"You're just 20 minutes away from unlocking premium playlists today!"*

### 3. Social Media Campaigns

- Leverage Spotify's social media platforms to showcase testimonials and user stories (e.g., *"I unlocked 1-day premium with my listening streak! 🎵"*).
- Create hashtags (#SpotifyRewards, #7DayChallenge) to drive user participation and engagement.

### 4. Personalized App Banners

- Display a banner on the home page for non-premium users, encouraging them to start the challenge with clear CTAs like *"Start Earning Rewards!"*.

### 5. Collaborations with Influencers

- Partner with music influencers and creators to promote the program through short videos or live sessions, explaining the rewards and how to achieve them.

## 6. Gamified Elements

- Add gamified elements, such as leaderboards or badges, to drive competitive engagement, making users aware of the program as they use the app.

## 7. Onboarding Tutorials

- For first-time users, include the reward system in the onboarding journey to ensure awareness from the start.

## 8. Blog Posts and Press Releases

- Publish blog content on Spotify's website detailing the reward system's benefits and the company's mission to enhance user satisfaction.

## 9. Collaborations with Premium Advertisers

- Promote the rewards program through free-tier ad slots to highlight the ease of earning premium access.

## 10. Referral Bonuses

- Introduce a referral program where users get additional rewards for inviting friends to participate in the challenge.

This multi-channel approach ensures maximum visibility and engagement for the new reward system.

## Launch Readiness

### Key Milestones:

1. Design Complete [2 weeks]
2. Development Complete [6 weeks]
3. Testing [2 weeks]
4. QA Testing [1 week]
5. Production Live [1 week]

### Internal Stakeholders:

1. Product Managers
2. Development Team
3. Testing Team
4. QA Team
5. Marketing Team
6. Support Team
7. Legal and Compliance

### Experimentation Plan:

1. **Initial Rollout:** Gradually release the reward system to a subset of users (e.g., specific regions or segments) to monitor engagement and gather feedback.
2. **A/B Testing:** Test variations of the reward system (e.g., different rewards, messaging, or UI elements) to identify the most effective approach.
3. **Post-Launch Monitoring:** Continuously monitor user engagement, conversion rates, and support requests to assess the impact of the new reward system.
4. **Iterative Improvement:** Use the data from experiments and post-launch feedback to make iterative improvements to the reward system.

## Future Iterations

### Scope of Next Versions:

#### 1. Social Sharing of Rewards:

Enable users to share their achievements and rewards, such as streak completions or unlocked premium playlists, on social platforms like WhatsApp, Instagram, and Snapchat. This can create a social loop, motivating others to engage with Spotify as their friends do.

#### 2. Expanded Reward Features:

Introduce more dynamic reward options, such as unlocking premium playlists or exclusive content by increasing their average Time Spent Listening (TSL). This provides users with diverse incentives and encourages continued engagement.

### Ideas Parked for Later:

- Gamification elements like leaderboards for streaks.
- Collaborative rewards, e.g., group listening milestones unlocking group perks.
- **Referral Bonuses:** Launch a referral program where users can earn extra rewards by inviting friends to join Spotify and participate in the reward system.
- Integration with partner platforms for exclusive rewards.

## Risks & Mitigations

1. System Instability or Bugs: The new feature might cause performance issues or unexpected behavior in the application.

- Mitigation: Conduct extensive testing, use feature toggles, and deploy incrementally.

2. User Resistance or Negative Feedback: Users might dislike the feature or find it hard to use, impacting engagement.

- Mitigation: Gather user feedback through beta testing and refine the feature based on usability testing.

3. Misalignment with User Needs: The feature may fail to meet user expectations, resulting in low adoption.

- Mitigation: Validate the feature idea through surveys, data analysis, and A/B testing.

4. Data Privacy or Security Issues: The feature could lead to non-compliance with regulations or security vulnerabilities.

- Mitigation: Perform compliance checks, implement secure coding practices, and conduct security audits.

5. Reputation Damage: A poorly received feature might harm Spotify's brand image.

- Mitigation: Actively manage user feedback, communicate changes effectively, and be prepared with a rollback or crisis response plan.

## Open Questions & Decisions Taken

Questions	Decisions Taken
How will we measure the success of the reward system post-launch?	Success will be measured by tracking key metrics such as increased time spent listening, conversion to premium users, and retention rates. A dedicated analytics dashboard will be set up to monitor these metrics.
How should we handle user feedback post-launch?	A feedback loop will be established through surveys and analytics. Users can provide feedback directly within the app, and a dedicated team will analyze this feedback to make iterative improvements to the reward system.

## Descoping

**New User Onboarding:** Focus solely on enhancing the experience for existing users. New user onboarding features have been deferred to a later phase due to resource constraints and to simplify the initial launch.

## Trade-offs Made

**Simplified Personalization:** To launch quickly, full personalization beyond curating premium playlists based on listening habits was not included. Future enhancements can build on this foundation.

## Appendix

- Link to competitive analysis :  
<https://www.figma.com/slides/srcXIYeDbjk7flul6w2zx/Milestone-1---Spotify-India?node-id=49-132&t=ywmmzQcim1TWwDB6-0>
- Link to user research (surveys, etc) :  
<https://docs.google.com/forms/d/1YH5JOLWDzE-xiLwqbrxbv24FRqNRlra76-zsb7ZTtdU/edit#responses>
- Link to data analysis (impact estimates etc.) :  
<https://www.figma.com/slides/JzqLsD263A2CrXHqcaYD4S/Milestone-2---Spotify-deriving-insights-from-users'?node-id=5-2&t=ywmmzQcim1TWwDB6-0>
- Link to solution mindmaps :  
<https://www.figma.com/board/3I7uMlqMHgPI7zJigQd3YV/Spotify-rewards-mind-map?node-id=0-1&t=wD9KQLnuVZV7gYNb-1>
- Link to solution design :  
<https://www.figma.com/design/eGK2sis7qjdvRZZOOV4UnK/Spotify-Reward-Design?node-id=0-1&p=f&t=TFi7uBXn4Fwi9LS4-0>