

Rewards Center - Complete Implementation Guide

Overview

The Rewards Center is a comprehensive 3-tiered reward system with sponsor integration, email notifications, and Apple-style celebration effects. Users earn points through activities and unlock exclusive rewards as they progress through Bronze, Silver, and Gold tiers.

Key Features

1. 3-Tier Reward System

- **Bronze Champion** (0-999 points)
 - Entry-level rewards
 - Beginner equipment discounts
 - Community support access
- **Silver Warrior** (1,000-4,999 points)
 - Premium equipment discounts (up to 30% off)
 - Free tournament entry vouchers
 - Priority customer support
 - Quarterly sponsor gifts
- **Gold Master** (5,000+ points)
 - Elite rewards (up to 50% off)
 - VIP tournament access
 - Free coaching sessions
 - Personalized sponsor partnerships
 - White glove customer service

2. Automatic Tier Unlock Detection

- Real-time detection when users cross tier thresholds
- Automatic email notifications
- Celebration modal with confetti effects
- Progress tracking to next tier

3. Email Notifications

- Beautiful HTML emails on tier unlock
- Tier-specific colors and branding
- Benefits listing
- Next tier progress teaser
- Quick action links

4. Apple-Style Celebration Effects

- Full-screen confetti animation
- Smooth entrance/exit transitions
- Tier-specific color schemes
- Progress visualization
- Mobile-responsive design

5. Comprehensive Rewards UI

- Current tier status dashboard
- Points balance display
- Progress bar to next tier
- All 3 tiers with lock/unlock states
- Featured sponsor offers
- How to earn points guide

File Structure

Database Schema

```
prisma/schema.prisma
└── New Models:
    ├── RewardTier (Bronze/Silver/Gold configurations)
    ├── TieredReward (Rewards per tier)
    └── TierUnlock (User unlock tracking)
```

API Routes

```
app/api/rewards/
└── check-unlock/route.ts      # Check for new tier unlocks
└── celebration-shown/route.ts # Mark celebration as viewed
└── current-tier/route.ts     # Get user's current tier & progress
```

Components

```
app/components/
└── tier-unlock-celebration.tsx # Apple-style celebration modal

app/rewards/
└── page.tsx                  # Main rewards center UI
```

Email Templates

```
lib/email/
└── reward-tier-unlock-email.ts # Tier unlock notification email
```

Utilities

```
lib/rewards/
└── award-points.ts          # Point awarding & tier checking
```

Seed Scripts

```
scripts/
├── seed-reward-tiers.ts      # Populate 3 tiers
└── seed-tiered-rewards.ts    # Populate sample rewards
```



Getting Started

1. Database Setup

The schema has been updated and pushed. To verify:

```
cd /home/ubuntu/mindful_champion/nextjs_space
yarn prisma generate
yarn prisma db push
```

2. Seed Data

Populate the tiers and rewards:

```
# Seed the 3 reward tiers
npx tsx --require dotenv/config scripts/seed-reward-tiers.ts

# Seed sample rewards (optional, for demo)
npx tsx --require dotenv/config scripts/seed-tiered-rewards.ts
```

3. Test the Flow

Award Points to a User

Use the utility function in your code:

```
import { awardPoints } from '@/lib/rewards/award-points';

// Award 1000 points (should unlock Silver tier)
await awardPoints(userId, 1000, 'Completed achievement');
```

Manual Testing

1. **Login as a user**
2. **Navigate to:** /rewards
3. **Check current tier status**
4. **Award points** via achievements or admin panel
5. **Watch for:**
 - Automatic tier unlock detection

- Email notification
 - Celebration modal with confetti
- 6. Browse rewards** in marketplace
-

UI Components

Rewards Center Page

URL: /rewards

Features:

- Current tier status card
- Points balance
- Progress to next tier
- All 3 tier cards (locked/unlocked states)
- Featured sponsor offers
- How to earn points guide

Tier Unlock Celebration Modal

Component: TierUnlockCelebration

Triggers: Automatically when user unlocks a new tier

Features:

- 80 confetti particles with tier colors
 - Animated tier icon
 - Benefits list
 - Next tier progress
 - Smooth transitions
 - Mobile responsive
-

Email Notifications

Tier Unlock Email

Template: lib/email/reward-tier-unlock-email.ts

Triggered: When user crosses tier threshold

Contains:

- Congratulations header
- Tier badge
- Points earned
- Full benefits list
- Next tier teaser
- Quick action links

Styling:

- Tier-specific colors
- Responsive design

- Modern gradient backgrounds
 - Mobile-friendly
-

API Endpoints

POST /api/rewards/check-unlock

Checks if user has unlocked any new tiers.

Returns:

```
{
  "hasNewUnlocks": true,
  "unlocks": [
    {
      "id": "unlock_id",
      "tier": {
        "displayName": "Silver Warrior",
        "icon": " SILVER_WARRIOR_ICON",
        "colorPrimary": "#C0C0C0",
        "benefits": [...],
        "nextTierName": "Gold Master",
        "nextTierPoints": 5000
      },
      "pointsAtUnlock": 1000
    }
  ]
}
```

POST /api/rewards/celebration-shown

Marks celebration as shown for a tier unlock.

Body:

```
{
  "unlockId": "unlock_id"
}
```

GET /api/rewards/current-tier

Get user's current tier and progress.

Returns:

```
{
  "currentTier": {...},
  "nextTier": {...},
  "userPoints": 1500,
  "progressPercentage": 12.5,
  "pointsToNext": 3500,
  "unlockedTiers": [...],
  "allTiers": [...]
}
```

Point Awarding System

How to Award Points

Use the `awardPoints` utility:

```
import { awardPoints } from '@/lib/rewards/award-points';

const result = await awardPoints(
  userId,
  100, // points
  'Completed daily practice' // reason
);

if (result.success) {
  console.log(`New total: ${result.newTotal}`);
}
```

Automatic Tier Detection

The `awardPoints` function automatically:

1. Updates user's point balance
2. Checks for tier unlocks
3. Creates unlock records
4. Sends email notifications
5. Triggers celebration modal

Integration Points

Award points when users:

- Complete achievements
- Finish training programs
- Log practice sessions
- Watch training videos
- Participate in tournaments
- Complete daily challenges



Customization

Tier Configuration

Edit tiers in `scripts/seed-reward-tiers.ts`:

```
{
  name: 'BRONZE',
  displayName: 'Bronze Champion',
  minPoints: 0,
  maxPoints: 999,
  tierLevel: 1,
  icon: '🏆',
  colorPrimary: '#CD7F32',
  colorSecondary: '#B87333',
  benefits: [...],
  sponsorSlot: 1
}
```

Email Styling

Edit lib/email/reward-tier-unlock-email.ts :

- Colors
- Layout
- Copy
- CTA buttons

Celebration Animation

Edit app/components/tier-unlock-celebration.tsx :

- Confetti count
- Animation duration
- Colors
- Effects



Analytics & Tracking

Tracked Metrics

- Tier unlock events
- Points earned by source
- Email open rates (via Resend)
- Celebration modal views
- Redemption patterns by tier

Database Queries

```
-- Users by tier
SELECT
    CASE
        WHEN "rewardPoints" < 1000 THEN 'Bronze'
        WHEN "rewardPoints" < 5000 THEN 'Silver'
        ELSE 'Gold'
    END as tier,
    COUNT(*) as user_count
FROM "User"
GROUP BY tier;

-- Recent tier unlocks
SELECT
    tu.*,
    rt."displayName",
    u.email
FROM "TierUnlock" tu
JOIN "RewardTier" rt ON tu."tierId" = rt.id
JOIN "User" u ON tu."userId" = u.id
ORDER BY tu."unlockedAt" DESC
LIMIT 10;
```

Testing Checklist

Functional Tests

- [] User can view rewards center
- [] Current tier displays correctly
- [] Points balance is accurate
- [] Progress bar updates
- [] Tier cards show correct lock states
- [] Featured offers display
- [] Point awarding works
- [] Tier unlock detection triggers
- [] Email notification sends
- [] Celebration modal appears
- [] Confetti animation plays
- [] Redirection to marketplace works

Edge Cases

- [] User at 0 points (before Bronze)
- [] User crosses multiple tiers at once
- [] User at max tier (Gold)
- [] Duplicate unlock prevention
- [] Email failure handling
- [] Modal dismiss behavior

Performance

- [] Page loads under 3s
- [] Animations are smooth (60fps)
- [] API responses under 500ms
- [] Email sends asynchronously
- [] No blocking operations



Common Issues & Solutions

Issue: Tier not unlocking

Solution: Check if user has sufficient points:

```
const user = await prisma.user.findUnique({
  where: { id: userId },
  select: { rewardPoints: true }
});
console.log('User points:', user.rewardPoints);
```

Issue: Email not sending

Solution: Check Resend API key in `.env`:

```
RESEND_API_KEY=your_key_here
```

Issue: Celebration modal not showing

Solution: Check `celebrationShown` flag:

```
const unlock = await prisma.tierUnlock.findFirst({
  where: {
    userId,
    celebrationShown: false
  }
});
```

Issue: Points not updating

Solution: Use transaction-safe update:

```
await prisma.user.update({
  where: { id: userId },
  data: { rewardPoints: { increment: points } }
});
```



Security Considerations

- 1. Authentication:** All API routes check session

2. **Authorization:** Users can only view/redeem their own rewards
 3. **Input Validation:** Points must be positive integers
 4. **Rate Limiting:** Prevent point farming
 5. **Email Privacy:** Never expose email in public responses
-

Future Enhancements

Potential Features

1. **Tier Leaderboards:** Show top users per tier
2. **Tier Badges:** Visual badges on profile
3. **Tier Perks:** Exclusive features per tier
4. **Point History:** Detailed point transaction log
5. **Referral Bonuses:** Earn points for referrals
6. **Seasonal Tiers:** Limited-time special tiers
7. **Team Tiers:** Collaborative tier progression
8. **Tier Milestones:** Celebrate every 1000 points

Sponsor Integration

1. **Tier-Specific Offers:** Link offers to tiers
 2. **Sponsor Spotlights:** Featured sponsor per tier
 3. **Exclusive Partnerships:** Gold-tier only sponsors
 4. **Dynamic Pricing:** Tier-based discounts
-

Maintenance

Regular Tasks

- Monitor tier distribution
- Review point inflation
- Update tier thresholds if needed
- Refresh sponsor offers
- Analyze redemption patterns
- Optimize email templates

Database Maintenance

```
-- Clean up old unlocks (if needed)
DELETE FROM "TierUnlock"
WHERE "unlockedAt" < NOW() - INTERVAL '1 year';

-- Update tier stats
UPDATE "RewardTier" rt
SET "updatedAt" = NOW();
```



Conclusion

The Rewards Center is now fully implemented with:

- 3-tier system (Bronze/Silver/Gold)
- Automatic tier unlock detection
- Email notifications
- Apple-style celebration effects
- Comprehensive UI
- Points management system
- Sponsor integration ready

Next Steps:

1. Test the full flow with real users
2. Integrate with existing achievements
3. Add tier badges to user profiles
4. Set up sponsor partnerships
5. Monitor engagement metrics

Questions or Issues?

Refer to the API documentation or check the implementation files.

Happy coding! 