Credit System Fixes and Enhancements

Date: October 30, 2025

Issues Fixed

1. Credit Balance Not Showing on Main Verifier Page

Problem:

- The main verifier page only had a "Buy Credits" button
- No credit balance display was visible to users
- Users couldn't see their available credits while using the tool

Solution:

- Added CreditHeader component import to main page (src/app/page.tsx)
- Replaced standalone "Buy Credits" button with CreditHeader component
- The CreditHeader component displays:
- Current credit balance with icon
- Refresh button for real-time updates
- Low balance warning (when credits < 10)
- "Buy Credits" button
- All in a beautiful, cohesive UI

Files Modified:

- src/app/page.tsx - Added CreditHeader import and replaced button section

2. Credits Not Reflecting After Purchase (Stripe Sandbox Issue)

Problem:

- After completing test purchases in Stripe sandbox, credits weren't being added
- Dashboard showed 0 balance, no transaction history, and no purchases
- Issue was that Stripe webhooks don't fire automatically in test/sandbox mode
- Webhooks only work in production or with Stripe CLI webhook forwarding

Root Cause:

The webhook handler (src/app/api/credits/webhook/route.ts) was correctly implemented, but:

- Stripe sandbox mode doesn't automatically send webhooks to deployed applications
- Webhooks only fire in production with proper Stripe webhook endpoint configuration
- In test mode, webhooks require Stripe CLI with stripe listen --forward-to command

Solution:

Created a fallback payment verification system that works in both sandbox and production:

- 1. New Verification Endpoint (src/app/api/credits/verify-payment/route.ts):
 - Retrieves Stripe checkout session by session_id
 - Verifies payment status is "paid"

- Checks if payment was already processed (prevents duplicates)
- Manually adds credits to customer account
- Records transaction in database
- Works identically to webhook handler but is triggered by the client

2. Dashboard Auto-Verification (src/app/dashboard/page.tsx):

- Detects when user returns from successful Stripe checkout
- Automatically calls verification endpoint with session id
- Processes payment and adds credits immediately
- Shows success message and refreshes dashboard
- Provides user feedback if verification fails

How It Works:

```
User clicks "Purchase" → Redirected to Stripe Checkout

↓
User completes payment with test card
↓
Stripe redirects to: /dashboard?purchase=success&session_id=xxx
↓
Dashboard detects success + session_id
↓
Calls /api/credits/verify-payment?session_id=xxx
↓
Endpoint verifies payment with Stripe API
↓
Manually adds credits to database
↓
Dashboard refreshes and shows new balance
```

Benefits:

- Works perfectly in Stripe sandbox/test mode
- Also works in production (as a backup to webhooks)
- Prevents duplicate credit additions
- Provides immediate feedback to users
- No need to configure Stripe CLI for testing

Files Created:

- src/app/api/credits/verify-payment/route.ts - Payment verification endpoint

Files Modified:

- src/app/dashboard/page.tsx - Added auto-verification on return from Stripe

3. V Bland/Plain Stripe Checkout Page

Problem:

- Stripe checkout page was very minimal and plain
- Large white gap with no branding
- No logo or visual identity
- Generic product description
- Looked unprofessional and untrustworthy

Solution:

1. Created Professional VerifyLens Logo:

- Generated modern, professional brand logo
- Features shield with checkmark symbol
- Blue to purple gradient color scheme
- Clean, tech-oriented design
- Transparent background PNG
- High resolution (1024x1024)

2. Enhanced Stripe Checkout Session:

- Added logo to product images
- Improved product description
- Added customer email pre-fill
- Better branding and trust signals

Changes in src/app/api/credits/purchase/route.ts:

```
product_data: {
  name: creditPackage.name,
  description: `${creditPackage.credits} credits for VerifyLens - Roblox User
Verification Tool`, // Enhanced
  images: [`${process.env.NEXTAUTH_URL}/verifylens-logo.png`], // Added logo
},
customer_email: session.user.email || undefined, // Pre-fill email
```

Result:

- Professional-looking checkout page
- Brand logo prominently displayed
- Clear product description
- Enhanced user trust and conversion rate

Files Created:

- public/verifylens-logo.png - Professional brand logo

Files Modified:

- src/app/api/credits/purchase/route.ts - Enhanced checkout session

Summary of Changes

Files Created (3):

- 1. src/app/api/credits/verify-payment/route.ts Manual payment verification
- 2. public/verifylens-logo.png Brand logo
- 3. CREDIT SYSTEM FIXES.md This documentation

Files Modified (3):

- 1. src/app/page.tsx Added credit balance display
- 2. src/app/dashboard/page.tsx Added auto-verification
- 3. src/app/api/credits/purchase/route.ts Enhanced Stripe checkout

Testing Instructions

Test Credit Purchase in Sandbox Mode:

1. Login to Application:

- Use demo customer credentials
- Navigate to dashboard

2. Purchase Credits:

- Click "Buy Credits" or navigate to /dashboard
- Select a credit package
- Click "Purchase"

3. Complete Stripe Checkout:

- Use test card: 4242 4242 4242 4242
- Any future expiry date (e.g., 12/34)
- Any CVC (e.g., 123)
- Any ZIP code
- Click "Pay"

4. Verify Credits Added:

- You'll be redirected to dashboard
- Success message will appear
- Credits will be automatically added
- Dashboard will refresh showing new balance
- Transaction history will show the purchase

5. Check Main Verifier Page:

- Navigate back to main page (/)
- Credit balance should be visible in header
- Can refresh balance with refresh button

Production Deployment Notes

Stripe Webhook Configuration (Recommended for Production):

While the manual verification system works in production, it's recommended to also configure web-hooks:

1. Go to Stripe Dashboard:

- Navigate to Developers → Webhooks

2. Add Endpoint:

URL: https://your-domain.com/api/credits/webhook

Events: checkout.session.completed

3. Add Webhook Secret to Environment:

STRIPE_WEBHOOK_SECRET=whsec_xxxxxxxxxxxxxx

4. Benefits of Webhooks:

- More reliable (server-to-server)
- Doesn't rely on user's browser

- Better for handling failed/delayed payments
- Industry best practice

Note: The manual verification system will continue to work as a backup even with webhooks enabled.

Environment Variables Required

Make sure these are set in your .env file:

```
Stripe Configuration
STRIPE_SECRET_KEY=sk_test_xxxxxxxxxxx
STRIPE_PUBLISHABLE_KEY=pk_test_xxxxxxxxxxx
STRIPE_WEBHOOK_SECRET=whsec_xxxxxxxxxxx

## Application URLs
NEXTAUTH_URL=https://your-domain.com
APP_URL=https://your-domain.com
## Database
DATABASE_URL=postgresql://user:password@host:5432/database
```

Credit System Features Summary

For Users:

- View credit balance on main page
- <a> Real-time balance updates
- V Low balance warnings
- K Easy credit purchase flow
- V Professional Stripe checkout
- <a>Immediate credit addition
- <a> Transaction history
- V Purchase confirmations

For Admins:

- V Automatic credit management
- V Stripe payment integration
- V Transaction tracking
- Customer credit monitoring
- Works in sandbox for testing
- Production-ready with webhooks

Future Enhancements (Optional)

1. Credit Usage Analytics:

- Add charts showing credit usage over time

- Most used search modes
- Cost per customer insights

2. Auto-Recharge:

- Allow customers to set up automatic recharge
- When balance drops below threshold, auto-purchase

3. Credit Packages:

- Volume discounts for large purchases
- Subscription-based credits
- Enterprise unlimited plans

4. Notifications:

- Email alerts for low balance
- Purchase confirmations via email
- Monthly usage reports

Support

If you encounter any issues with the credit system:

1. Check Browser Console:

- Look for error messages
- Check network requests

2. Verify Environment Variables:

- Ensure all Stripe keys are set
- Check database connection

3. Test Mode vs Production:

- Use test cards in sandbox
- Use real cards in production
- Verify Stripe mode matches

4. Database Check:

- Verify tables exist (customer_credits, credit_transactions, credit_packages)
- Check for any SQL errors in logs

Conclusion

All three issues have been successfully resolved:

- 1. Credit balance now visible on main verifier page
- 2. Credits reflect immediately after purchase (even in sandbox)
- 3. V Stripe checkout page enhanced with professional branding

The application is now ready for continued development and deployment.

Commit Hash: b0d3099

Branch: main

Status: All changes pushed to GitHub