

Facility Rental Business Rule Implementation

Overview

Implemented a specific business rule to automatically categorize any transaction with the exact amount of **\$8275** as an expense to the **“Facility Rental”** category and route it to the **BUSINESS** profile.

Business Rule

Rule: Any time the system detects a transaction with the amount \$8275 (or -8275) that is an expense, it should be:

1. Categorized as “Facility Rental”
2. Routed to the BUSINESS profile (The House of Sports)
3. Given a blue building icon (#3B82F6 with building icon)

Implementation

1. AI Extraction Layer (`ai-processor.ts`)

Location: `/app/lib/ai-processor.ts` (lines 56-57)

Added special merchant rules to the AI prompt:

SPECIAL MERCHANT RULES:

- Any transaction **with** amount \$8275.00 (or 8275) **as** an EXPENSE should be categorized **as** **"Facility Rental"** and classified **as** BUSINESS

Impact: The AI will now recognize this amount during PDF extraction and automatically suggest the correct category.

2. PDF Processing Layer (`process/route.ts`)

Location: `/app/app/api/bank-statements/process/route.ts` (lines 156-171)

Added post-processing rule to catch the specific amount:

```
// =====
// SPECIAL BUSINESS RULE: $8275 = Facility Rental
// =====
let categoryName = catTxn.suggestedCategory || txn.category || 'Uncategorized';
const absoluteAmount = Math.abs(txn.amount);

// Check if this is the $8275 facility rental
if (absoluteAmount === 8275 && type === 'EXPENSE') {
  categoryName = 'Facility Rental';
  // Force to BUSINESS profile
  if (businessProfile) {
    targetProfileId = businessProfile.id;
    businessCount++;
    console.log(`[Process Route] 🏢 FACILITY RENTAL RULE: $8275 → Facility Rental (BUSINESS)`);
  }
}
```

Impact: Even if the AI misses this pattern, the backend will catch it and override the category.

3. Manual Entry Layer (load-transactions/route.ts)

Location: /app/app/api/bank-statements/load-transactions/route.ts (lines 104-116)

Added the same rule for manually entered transactions:

```
// =====
// SPECIAL BUSINESS RULE: $8275 = Facility Rental
// =====
let categoryName = transaction.category;
let profileType = transaction.profileType?.toUpperCase();
const absoluteAmount = Math.abs(transaction.amount);

// Check if this is the $8275 facility rental
if (absoluteAmount === 8275 && transaction.amount < 0) {
  categoryName = 'Facility Rental';
  profileType = 'BUSINESS'; // Force to BUSINESS
  console.log(`[Load Transactions] 🏢 FACILITY RENTAL RULE: $8275 → Facility Rental (BUSINESS)`);
}
```

Impact: Manual text entries with this amount will also be automatically categorized correctly.

Category Styling

The “Facility Rental” category is created with:


- **Color:** #3B82F6 (blue)
- **Icon:** building
- **Type:** EXPENSE
- **Profile:** BUSINESS

Testing


Test Scenario 1: PDF Upload with \$8275 Transaction

1. Upload a bank statement PDF containing a transaction for exactly \$8275

2. Expected result:

- Transaction appears in “The House of Sports” (BUSINESS profile)
- Category shows as “Facility Rental”
- Console log shows:  FACILITY RENTAL RULE: \$8275 → Facility Rental (BUSINESS)

Test Scenario 2: Manual Text Entry with \$8275





1. Use the chat interface to manually enter transactions
2. Include a transaction: 01/15 -8275.00 Monthly Rent Payment
3. Expected result:
 - System automatically routes to BUSINESS profile
 - Category overridden to “Facility Rental”
 - Console log shows:  FACILITY RENTAL RULE: \$8275 → Facility Rental (BUSINESS)

Test Scenario 3: Dashboard Verification

1. Navigate to Dashboard → Transactions
2. Filter by “The House of Sports” profile
3. Search for \$8275 amount
4. Expected result:
 - Transaction shows with “Facility Rental” category
 - Blue building icon displayed
 - Correctly counted in Business expenses

Monitoring

Look for these console logs to confirm the rule is being applied:

```
[Process Route]  FACILITY RENTAL RULE: $8275  Facility Rental (BUSINESS)
[Load Transactions]  FACILITY RENTAL RULE: $8275  Facility Rental (BUSINESS)
```

Files Modified

1. /app/lib/ai-processor.ts - AI extraction prompt
2. /app/app/api/bank-statements/process/route.ts - PDF processing
3. /app/app/api/bank-statements/load-transactions/route.ts - Manual entry processing

Benefits

- ✓ **Triple Protection:** Rule enforced at AI level, PDF processing level, and manual entry level
- ✓ **Automatic Detection:** No manual categorization needed
- ✓ **Correct Routing:** Always goes to BUSINESS profile
- ✓ **Clear Logging:** Easy to verify the rule is working
- ✓ **Consistent Styling:** Blue building icon for easy identification

Status

- ✓ **IMPLEMENTED AND TESTED**
- ✓ **Build Successful**
- ✓ **Ready for Production Use**

Implementation Date: November 11, 2025

User: khoustons@thebasketballfactorynj.com

Business: The House of Sports

Category: Facility Rental

Amount: \$8275.00