

QA Testing Guide - Profile Strength & Document Queries

Annaizu AI Chatbot Testing Documentation

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Purpose: Comprehensive testing guide for Profile Strength and Document Query features

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Profile Strength Testing

Feature Overview

The Profile Strength feature allows users to query employee onboarding completion status, missing documents, and compliance progress through natural language.

Test Cases - Profile Strength Queries

Category 1: General Profile Strength Queries

Test ID	Query	Expected Behavior
PS-0 01	“What is the profile strength?”	Returns overall profile completion summary with statistics
PS-0 02	“Show me profile completion status”	Returns list of employees with completion percentages
PS-0 03	“Give me onboarding progress report”	Returns onboarding status with progress details
PS-0 04	“What is the completion rate?”	Returns average profile strength across all employees
PS-0 05	“Show profile completion percentage”	Returns completion statistics

Category 2: Employee-Specific Queries

Test ID	Query	Expected Behavior
PS-1 01	“What’s missing for John Smith?”	Returns missing documents/forms for John Smith
PS-1 02	“Show me profile strength of Sarah Johnson”	Returns specific employee’s completion status
PS-1 03	“What documents are needed for Michael Brown?”	Lists missing documents for Michael
PS-1 04	“Which forms are incomplete for Emma Davis?”	Shows incomplete forms for Emma

Test ID	Query	Expected Behavior
PS-1 05	“What’s the onboarding status of David Wilson?”	Returns onboarding progress for David

Category 3: Missing/Incomplete Queries

Test ID	Query	Expected Behavior
PS-20 1	“Show me missing documents”	Lists all employees with missing documents
PS-20 2	“Which employees have incomplete profiles?”	Returns employees below 100% completion
PS-20 3	“What forms are pending?”	Shows all pending forms across employees
PS-20 4	“Show me compliance status”	Returns compliance check with missing items
PS-20 5	“Who needs to upload documents?”	Lists employees with missing uploads

Category 4: Branch-Specific Queries

Test ID	Query	Expected Behavior
PS-3 01	“Profile strength for London branch”	Returns completion stats for London branch only
PS-3 02	“Show me missing documents in Manchester office”	Lists missing docs for Manchester employees
PS-3 03	“What’s the completion rate for Birmingham branch?”	Returns Birmingham branch statistics

Category 5: Filtered Queries (Strength Range)

Test ID	Query	Expected Behavior
PS-40 1	“Show employees with profile strength below 50%”	Returns employees with <50% completion
PS-40 2	“Who has profile strength above 80%?”	Lists employees with >80% completion
PS-40 3	“Show me employees with incomplete profiles”	Returns employees below 100%
PS-40 4	“Which employees are fully onboarded?”	Shows employees at 100% completion

Category 6: Summary/Overview Queries

Test ID	Query	Expected Behavior
PS-501	“Give me a profile summary”	Returns overall summary with statistics
PS-502	“Show onboarding overview”	Returns onboarding progress overview
PS-503	“Employee compliance report”	Returns compliance summary
PS-504	“Profile statistics”	Returns profile strength statistics

Document Query Testing

Feature Overview

The Document Query feature allows users to search and retrieve employee documents (passports, visas, contracts, compliance certificates, etc.) through natural language.

Test Cases - Document Queries

Category 1: General Document Queries

Test ID	Query	Expected Behavior
DQ-001	“Show me uploaded documents”	Returns list of all documents
DQ-002	“What documents are available?”	Lists all document types available
DQ-003	“Give me a document summary”	Returns document type summary with counts
DQ-004	“Show file manager”	Returns document overview
DQ-005	“What files are uploaded?”	Lists uploaded files

Category 2: Document Type Queries

Test ID	Query	Expected Behavior
DQ-101	“Show me all passports”	Returns all passport documents
DQ-102	“List all visa documents”	Returns visa documents only
DQ-103	“Show right to work documents”	Returns right to work docs
DQ-104	“Display compliance certificates”	Returns compliance certificate docs
DQ-105	“Show me offer letters”	Returns offer letter documents
DQ-106	“List contract documents”	Returns contract letters
DQ-107	“Show biometric documents”	Returns biometric residence permits
DQ-108	“Display eVisa documents”	Returns eVisa documents

Test ID	Query	Expected Behavior
DQ-109	“Show payslips”	Returns payslip documents

Category 3: Employee-Specific Document Queries

Test ID	Query	Expected Behavior
DQ-20 1	“Show documents for John Smith”	Returns all documents for John Smith
DQ-20 2	“What documents does Sarah have?”	Lists Sarah’s uploaded documents
DQ-20 3	“Display Michael’s passport”	Returns Michael’s passport document
DQ-20 4	“Show Emma’s visa documents”	Returns Emma’s visa docs
DQ-20 5	“List documents uploaded by David”	Returns David’s documents

Category 4: Branch-Specific Document Queries

Test ID	Query	Expected Behavior
DQ-30 1	“Show documents for London branch”	Returns documents for London employees
DQ-30 2	“List Manchester office documents”	Returns Manchester branch documents
DQ-30 3	“Display Birmingham branch passports”	Returns passports from Birmingham

Category 5: Combined Filter Queries

Test ID	Query	Expected Behavior
DQ-401	“Show passports for John Smith”	Returns John’s passport only
DQ-402	“Display visa documents in London branch”	Returns visas for London employees
DQ-403	“List compliance certificates for Sarah”	Returns Sarah’s compliance docs
DQ-404	“Show right to work documents in Manchester”	Returns RTW docs for Manchester

Category 6: Document Status Queries

Test ID	Query	Expected Behavior
DQ-501	“Document completion status”	Returns document upload status
DQ-502	“Document progress report”	Returns document availability overview
DQ-503	“Show available documents”	Lists all available document types

Test Execution Checklist

Pre-Testing Setup

- [] Ensure API endpoint is running: <http://localhost/ukvi-stable>
- [] Verify test database has sample data (employees, documents, profiles)
- [] Confirm Redis is running for caching
- [] Check OpenAI API key is configured
- [] Verify Qdrant vector database is accessible

Profile Strength Testing Steps

1. [] Run 5 queries from each category (PS-001 to PS-504)
2. [] Verify response time is 2-4 seconds
3. [] Check response includes summary statistics
4. [] Confirm missing documents are listed
5. [] Validate employee name resolution works
6. [] Test with non-existent employee name
7. [] Test with invalid branch name
8. [] Verify strength range filtering works

Document Query Testing Steps

1. [] Run 5 queries from each category (DQ-001 to DQ-503)
2. [] Verify response time is 2-4 seconds
3. [] Check document links are provided
4. [] Confirm document type filtering works
5. [] Validate employee name filtering
6. [] Test branch filtering
7. [] Test combined filters
8. [] Verify document count matches database

Edge Case Testing

- [] Test with empty query
 - [] Test with very long query (>500 characters)
 - [] Test with special characters in names
 - [] Test with partial employee names
 - [] Test with misspelled names
 - [] Test when no documents exist
 - [] Test when profile strength is 0%
 - [] Test when profile strength is 100%
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Expected Response Format

Profile Strength Response Format

Good Response Example:

Profile Strength Summary

Overall Statistics:

- Total Employees: 25
- Average Profile Strength: 78%
- Fully Complete: 15 employees (60%)
- Needs Attention: 10 employees (40%)

Strength Distribution:

- 90-100%: 12 employees
- 70-89%: 8 employees
- Below 70%: 5 employees

Employees Needing Attention:

- **John Smith** - 45% Complete
 - Missing: Passport, Right to Work Document
 - Status: Onboarding in Progress
- **Sarah Johnson** - 67% Complete
 - Missing: Visa Document
 - Status: Almost Complete

Quick Actions:

- View detailed profiles in [Employee Management](#)
- Track progress in [Onboarding Dashboard](#)

Individual Employee Response:

 **Profile Strength - John Smith**

Completion Status: 45%

Missing Documents:

- Passport (Required)
- Right to Work Document (Required)
- Biometric Residence Permit (Optional)

Completed Items:

- ✓ Offer Letter
- ✓ Contract Letter
- ✓ Address Proof

Next Steps:

1. Upload passport copy
2. Provide right to work documentation
3. Complete biometric verification

 **Quick Actions:**

- Upload documents in [Document Management](#)

Document Query Response Format

Good Response Example:

 **Document Search Results**

Total Documents Found: 15

Document Type Summary:

- Passports: 5
- Visas: 3

- Right to Work: 4
- Compliance Certificates: 3

****Documents:****

 ****Passport****

- Employee: John Smith
- Upload Date: 2025-10-15
- Status: Active
- [Download Link](#)

 ****Visa****

- Employee: Sarah Johnson
- Upload Date: 2025-10-20
- Status: Active
- [Download Link](#)

 ****Right to Work****

- Employee: Michael Brown
- Upload Date: 2025-10-25
- Status: Active
- [Download Link](#)

 ****Quick Actions:****

- Upload new documents in [Document Management](#)
- View all files in [File Manager](#)

Troubleshooting Guide

Issue: “No data available” response despite having data

Possible Causes:

- API endpoint not responding
- Database connection issue
- Redis cache not working
- Qdrant vector search failed

Debug Steps:

1. Check API logs: `tail -f /opt/lampp/htdocs/ukvi-stable/logs/api.log`
2. Test API manually: `curl http://localhost/ukvi-stable/api/ai/get-profile-strength?employerId=<ID>`
3. Verify Redis: `redis-cli ping`
4. Check Qdrant: `curl http://localhost:6333/collections`

Issue: Slow response time (>10 seconds)

Possible Causes:

- Too many database records
- Network latency
- Token budget overflow
- Vector search timeout

Debug Steps:

1. Check query limit (default 10, max 50)
2. Verify API response time directly
3. Check conversation history token count
4. Monitor OpenAI API latency

Issue: Function calling not triggered

Possible Causes:

- Query doesn't match detection keywords
- OpenAI model not using tools
- Function schema error

Debug Steps:

1. Check console logs for “Detected profile strength query” or “Detected document query”
2. Verify `employer_id` is passed to `get_llm_response()`
3. Test with exact keywords from detection lists
4. Check function schema is valid JSON

Issue: Name resolution fails

Possible Causes:

- Employee name doesn't exist
- Name spelling mismatch
- API limit too low

Debug Steps:

1. Test with exact employee name from database
 2. Check API returns employee with name search
 3. Verify partial matching works (case-insensitive)
 4. Increase resolution limit if needed
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Validation Checklist

Profile Strength Feature

- [] Returns summary statistics (total, average, distribution)
- [] Shows missing documents per employee
- [] Filters by employee name correctly

- [] Filters by branch name correctly
- [] Filters by strength range correctly
- [] Resolves employee names to IDs automatically
- [] Response time under 4 seconds
- [] Professional formatted response
- [] Includes actionable next steps
- [] Provides relevant navigation links

Document Query Feature

- [] Returns document list with details
 - [] Shows document type summary
 - [] Filters by document type correctly
 - [] Filters by employee name correctly
 - [] Filters by branch name correctly
 - [] Combines multiple filters correctly
 - [] Provides download links
 - [] Response time under 4 seconds
 - [] Professional formatted response
 - [] Includes navigation links
-

Test Data Requirements

Minimum Test Data Needed

Employees:

- At least 10 employees
- Mix of complete (100%) and incomplete profiles
- Employees across multiple branches
- Various completion levels (0-100%)

Documents:

- At least 20 documents total
- Mix of document types (passport, visa, RTW, etc.)
- Documents for different employees

- Documents across multiple branches

Profile Strength:

- Employees with 0% completion
 - Employees with 50% completion
 - Employees with 100% completion
 - Missing document records
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Success Criteria

Profile Strength

PASS if:

- All 6 categories work correctly
- Name resolution succeeds in <500ms
- Response time is 2-4 seconds
- Missing documents are accurately listed
- Statistics are calculated correctly

FAIL if:

- Query not detected
- Generic “I don’t have data” response when data exists
- Response time >10 seconds
- Missing documents not shown
- Statistics incorrect

Document Query

PASS if:

- All 6 categories work correctly
- Document filtering works accurately
- Download links are provided
- Response time is 2-4 seconds
- Document counts match database

✗ FAIL if:

- Query not detected
 - Wrong documents returned
 - Filters don't work
 - No download links
 - Response time >10 seconds
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Contact & Support

For Testing Issues:

- Check logs: `/opt/lampp/htdocs/Annaizu_AI_Chatbot/logs/`
- Review documentation: `/docs/` directory
- Debug mode: Set `DEBUG=True` in `config.py`

Related Documentation:

- `PROFILE_STRENGTH_INTEGRATION.md` - Profile strength technical docs
 - `DOCUMENT_QUERY_INTEGRATION.md` - Document query technical docs
 - `PROFILE_STRENGTH_QUICK_START.md` - Quick start guide
 - `DOCUMENT_QUICK_START.md` - Document feature quick start
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End of QA Testing Guide