SenseiWyze Repository Project Summary

Project Overview and Objectives

Purpose: The SenseiiWyze project integrates three powerful systems to create a comprehensive workforce development and business impact measurement solution that predicts training readiness and measures ROI.

Goals:

- Assess candidate readiness through vision boards, cognitive games, and personality tests
- Predict optimal program matches using machine learning models
- Measure business impact and ROI of training investments through the Profitability Flow KPI Tree
- Automate intervention workflows and enrollment processes via ActiveCampaign integration
- Enable data-driven workforce development with measurable business results

Target Outcome: 25-35% EBITDA improvement through predictive analytics, targeted interventions, and comprehensive business impact tracking.

Key Technical Components Analyzed

Architecture:

- **Unified Database Schema**: Complete PostgreSQL/Supabase schema with 29+ tables integrating prediction system with existing infrastructure
- **Data Flow Pipeline**: Vision board analysis → Cognitive scoring → Personality assessment → Readiness prediction → Program matching
- **Event-Driven Architecture**: Real-time webhooks and automated workflows for seamless user experience

Data Schema:

- **Core Tables**: `training_readiness_predictions`, `vision_board_analysis`, `cognitive_scores`, `personality_assessments`
- **Integration Tables**: `prediction_outcome_tracking`, `activecampaign_sync`, `training_profitability_impact`
- **KPI Tables**: `employee_kpi_scores`, `employee_outcomes`, `business_impact_metrics`

Diagrams:

- Complete Entity Relationship Diagram (ERD) with 240+ table relationships
- Interactive Profitability Flow KPI Tree with 6 layers: Data Sources → KPIs → Programs → Outcomes → Impacts → Financial Results
- System architecture diagrams showing integration points and data flows

Integration Work Completed

Database Integration Guides:

- **Complete Integration Guide** (`senseiwyze-arch-complete-integration-guide.md`): 570-line comprehensive implementation with 4 phases, security measures, and monitoring
- **Basic Integration Guide** (`senseiwyze-inte-basic-integration-guide.md`): 480-line step-by-step implementation roadmap with code examples
- **Unified Architecture Document** (`senseiwyze-arch-unified-architecture.md`): 600-line detailed system design with ActiveCampaign integration

Schema Analysis & Development:

- **Prediction Schema** (`senseiwyze-data-prediction-schema.sql`): 23KB complete database schema with all tables, relationships, and constraints
- **Supabase Analysis** (`senseiwyze-data-supabase-schema-analysis.md`): 420-line analysis of existing infrastructure with integration mapping
- **KPI Tree Implementation** (`senseiwyze-flow-profitability-kpi-tree.md`): Interactive business impact measurement framework

Technical Implementations:

- Vision board computer vision analysis pipeline
- Cognitive scoring algorithms with real-time calculation
- OCEAN personality assessment system
- Readiness prediction engine with intervention recommendations
- ActiveCampaign automation workflows
- ROI calculation and business impact tracking

Current Status and Next Steps

Current Status:
✅ **Foundation Complete** - All architectural documents, database schemas, and integration guides finalized
✅ **Technical Design** - Complete system architecture with detailed implementation plans
✅ **Integration Strategy** - Unified approach connecting all three core systems

Remaining Tasks:

Phase 1: Infrastructure Deployment (Weeks 1-3)

- [ ] Deploy database schema to production Supabase instance
- [ ] Set up Redis cache and S3 storage for vision boards
- [ ] Configure API endpoints and authentication
- [ ] Implement data migration scripts

Phase 2: Core Functionality (Weeks 4-6)

- [ ] Build vision board analysis pipeline (computer vision + NLP)
- [ ] Implement cognitive scoring algorithms
- [ ] Deploy readiness prediction engine
- [ ] Create intervention assignment system

Phase 3: External Integrations (Weeks 7-9)

- [ ] ActiveCampaign webhook setup and automation workflows
- [ ] Business impact calculation engine
- [ ] Real-time KPI dashboard development
- [ ] Notification and alerting systems

Phase 4: Testing & Optimization (Weeks 10-12)

- [ ] End-to-end system testing
- [ ] Performance optimization and security audit
- [ ] User acceptance testing and training
- [ ] Go-live preparation and monitoring setup

Success Metrics:

- Assessment completion rate >80%
- Prediction accuracy >87%
- Program enrollment conversion >40%
- Training completion rate >75%
- Target ROI: 681% ($7.15M profit on 1.05M investment)

Document Inventory

Filename	Description
`senseiwyze-arch-complete-integration-guide.md`	**Complete Integration Guide** - Comprehensive 19KB implementation guide with unified architecture, database integration, 4-phase deployment strategy, security measures, monitoring, and KPI dashboards
`senseiwyze-arch-unified-architecture.md`	**Unified Architecture Document** - 18KB system design with detailed data flow diagrams, ActiveCampaign integration, event-driven workflows, business intelligence layer, and external service integrations
`senseiwyze-inte-basic-integration-guide.md`	**Basic Integration Guide** - 15KB step-by-step implementation

Filename	Description
	roadmap with code examples, data pipeline setup, prediction engine development, and deployment checklist
`senseiwyze-data-prediction-schema.sql`	**Complete Database Schema** - 23KB comprehensive SQL schema with enhanced vision board analysis, cognitive scoring system, personality assessments, prediction engine tables, and all relationships
`senseiwyze-data-supabase-schema-analysis.md`	**Supabase Schema Analysis** - 16KB detailed analysis of existing database infrastructure with KPI tree integration mapping, table relationships, and enhancement recommendations
`senseiwyze-flow-profitability-kpi-tree.md`	**Profitability Flow KPI Tree** - 6.2KB interactive Mermaid-based business impact measurement framework with ROI calculations, success metrics, and implementation phases
`senseiwyze-util-diagram-examples.md`	**Database Diagram Examples** - 8.9KB code examples and instructions for generating ERD diagrams, Mermaid charts, and visual database representations from SQL schema files

Filename	Description
`senseiwyze-repo-project-summary.md`	**Project Summary Document** - 6.6KB comprehensive overview of the SenseiiWyze integration project including objectives, technical components, implementation status, and next steps
`senseiwyze-conf-requirements.txt`	**Python Dependencies** - Minimal requirements file (90 bytes) with essential packages for database analysis, diagram generation, and data processing tools