

 Add icon  Add cover

# UX Prototype Specification for Wealth Management AI Financial Assistant

## UX Prototype Specification for Wealth Management AI Financial Assistant

### Lovable.dev Agent Prompt - SEC Compliance Focus

**Project Title:** SEC-Compliant AI Financial Assistant for Wealth Management **Target Platform:** Web Application (TypeScript/Vite/React) **Primary Users:** Financial planners, advisors, and compliance officers at wealth management firm

### Project Overview

Create a modern, professional web application prototype for a wealth management firm's SEC-compliant AI Financial Assistant. This system focuses primarily on **SEC-compliant note translation** from meeting recordings/transcripts, seamlessly integrates with existing CRM and portfolio platforms (Redtail CRM, Albridge), and maintains rigorous security and audit trail requirements for financial advisory compliance.

### Core Business Requirements (Meeting Agenda Alignment)

#### Primary Function: SEC-Compliant Note Translation

**Input:** Raw meeting notes (audio recordings from iPhone or transcribed text) **Output:** Professional, SEC-compliant meeting summaries including:

- Client identity and meeting date
- Topics discussed (goals, risk tolerance, life events)
- Specific recommendations or advice given
- Action items for client and firm
- Tamper-proof audit trail for regulatory compliance

#### Secondary Functions: CRM & Portfolio Integration

- **Redtail CRM:** Bidirectional integration for client data and note logging
- **Albridge:** Portfolio data analysis and recommendations
- **Black Diamond:** Future integration planning (phased approach)

### Compliance & Security Focus

- Data encryption and access control
- Complete audit trails for all AI interactions
- Human oversight and review workflows
- Data minimization (exclude SSNs and other sensitive data)

### User Personas & Roles

#### Financial Planner (Primary User)

- Core function: Client meetings and relationship management
- Needs: Quick note translation, CRM integration, compliance assurance

- UI Focus: Meeting note processing, client context, compliance verification

Compliance Officer (Critical Reviewer)

- Core function: Regulatory oversight and audit preparation
- Needs: Audit trail access, note review workflows, SEC compliance verification
- UI Focus: Compliance dashboard, review queues, audit reports

Technology Team Lead (System Administrator)

- Core function: System maintenance and security oversight
- Needs: Security monitoring, integration status, system health
- UI Focus: Admin dashboard, security logs, integration management

Core Application Features

1. SEC-Compliant Note Processing Interface

</> Python

```
1 Primary Upload Zone:
2 - Audio file upload (M4A, WAV from iPhone recordings)
3 - Text input for pre-transcribed notes
4 - Client selection/search integration with Redtail CRM
5 - Meeting date/time capture
6 - Compliance template selection
7
8 Processing Options:
9 - Standard meeting notes
10 - Annual review documentation
11 - Investment recommendation records
12 - Risk assessment documentation
13
```

2. Compliance-Focused Results Display

</> Python

```
1 SEC-Compliant Note Output:
2 - Client Information Header (Name, Account #, Meeting Date)
3 - Structured Discussion Topics:
4   * Financial Goals Review
5   * Risk Tolerance Assessment
6   * Life Event Changes
7   * Portfolio Performance Discussion
8 - Recommendations Section:
9   * Specific advice given
10  * Rationale for recommendations
11  * Regulatory justification
12 - Action Items:
13  * Client responsibilities
14  * Firm follow-up tasks
15  * Compliance requirements
16 - Audit Trail:
17  * AI processing timestamp
18  * Human reviewer information
19  * Approval status and date
20
```

3. CRM Integration Dashboard

</> Python

```
1 Redtail CRM Integration:
2 - Client search and selection
3 - Automatic data population from CRM
4 - Direct note posting to client records
5 - Activity logging and follow-up scheduling
```

```
6
7 Portfolio Integration:
8 - Albridge portfolio data visualization
9 - Performance analysis with recommendations
10 - Risk assessment alignment
11 - Future Black Diamond integration preview
12
```

4. Compliance Review Workflow

</> Python

```
1 Human Oversight Interface:
2 - Pending review queue for all AI-generated notes
3 - Side-by-side comparison (original vs. AI-processed)
4 - Edit and approval capabilities
5 - Compliance checkpoint verification
6 - Audit trail documentation
7
```

5. Security & Audit Dashboard

</> Python

```
1 Admin Interface:
2 - Data encryption status monitoring
3 - Access control management
4 - Complete audit trail viewing
5 - Security incident reporting
6 - Integration health monitoring
7
```

Technical Requirements

Technology Stack

- **Framework:** React 18+ with TypeScript
- **Build Tool:** Vite
- **Styling:** Tailwind CSS with professional financial compliance theme
- **State Management:** React Query + Zustand
- **Security:** End-to-end encryption simulation
- **Audit Logging:** Immutable log display components
- **Forms:** React Hook Form with strict validation

Compliance-Focused Design

- **Audit Trail:** Visible timestamps and user attribution on all actions
- **Data Minimization:** Clear indicators of what data is/isn't processed
- **Human Oversight:** Required approval workflows for all AI outputs
- **Error Handling:** Clear escalation paths and manual override options

Mocked Data Specifications

SEC-Compliant Meeting Notes Mock

</> TypeScript

```
1 const mockMeetingNoteResult = {
2   id: "note_001",
3   client_information: {
4     name: "Robert J. Smith",
5     account_number: "RTS-789456123",
```

```

6      meeting_date: "2025-09-10",
7      meeting_type: "Quarterly Review",
8      advisor: "Sarah Johnson, CFP"
9    },
10   discussion_topics: [
11     {
12       category: "Financial Goals Review",
13       content: "Client confirmed retirement goal remains age 65 (15 years). Discussed increasing
14       regulatory_notes: "Goal reconfirmation documented per Investment Advisors Act requirements"
15     },
16     {
17       category: "Risk Tolerance Assessment",
18       content: "Client maintains moderate risk tolerance. Recent market volatility has not change
19       regulatory_notes: "Risk tolerance reassessment completed per firm policy"
20     },
21     {
22       category: "Life Events",
23       content: "Client mentioned daughter's college enrollment next year. Estimated additional ex
24       regulatory_notes: "Material life event documented affecting financial planning recommendati
25     }
26   ],
27   recommendations_given: [
28     {
29       recommendation: "Increase 401(k) contribution from $15,000 to maximum $23,000 annually",
30       rationale: "Recent salary increase provides capacity, maximizes tax-deferred growth opportu
31       implementation: "Client to contact HR to adjust payroll deduction beginning next pay period
32       regulatory_basis: "Recommendation based on client's stated retirement timeline and risk tol
33     },
34     {
35       recommendation: "Establish additional 529 education savings plan with $5,000 initial fundin
36       rationale: "Tax-advantaged college savings for daughter's education expenses",
37       implementation: "Firm to prepare 529 application for client signature within 5 business day
38       regulatory_basis: "Education planning recommendation based on disclosed life event"
39     }
40   ],
41   action_items: {
42     client_responsibilities: [
43       "Contact HR to increase 401(k) contribution by October 1, 2025",
44       "Provide daughter's school information for 529 plan setup",
45       "Review and sign 529 plan application within 7 days"
46     ],
47     firm_responsibilities: [
48       "Prepare 529 education savings plan application by September 15, 2025",
49       "Schedule follow-up call in 30 days to confirm 401(k) increase implementation",
50       "Update client profile with new contribution levels and education expense timeline"
51     ]
52   },
53   compliance_verification: {
54     sec_requirements_met: true,
55     fiduciary_standard_applied: true,
56     suitability_documented: true,
57     conflicts_of_interest: "None disclosed",
58     fee_disclosure_current: true
59   },
60   audit_trail: {
61     original_audio_duration: "47 minutes, 23 seconds",
62     ai_processing_time: "2 minutes, 15 seconds",
63     ai_confidence_score: 96,
64     human_reviewer: "Jennifer Walsh, CCO",
65     review_date: "2025-09-10T16:45:00Z",
66     approval_status: "approved",
67     regulatory_retention_date: "2031-09-10"
68   }
69 };
70

```

## CRM Integration Mock Data

</> TypeScript

```

1 const mockCRMIntegration = {
2   client_profile: {
3     redtail_id: "RT_12345",
4     name: "Robert J. Smith",
5     date_of_birth: "1975-03-15",

```

```

6      account_opening_date: "2018-06-12",
7      primary_advisor: "Sarah Johnson, CFP",
8      relationship_type: "Individual Advisory",
9      assets_under_management: "$847,392.18",
10     last_annual_review: "2024-09-15",
11     next_scheduled_review: "2025-09-15",
12     risk_tolerance: "Moderate",
13     investment_objective: "Long-term Growth"
14   },
15   recent_activities: [
16     {
17       date: "2025-08-28",
18       type: "Phone Call",
19       summary: "Discussed market volatility concerns, reassured client of long-term strategy",
20       advisor: "Sarah Johnson"
21     },
22     {
23       date: "2025-07-15",
24       type: "Document Review",
25       summary: "Client signed updated investment policy statement",
26       advisor: "Sarah Johnson"
27     }
28   ]
29 };
30
31 const mockPortfolioData = {
32   albridge_account: "ALB_789456123",
33   as_of_date: "2025-08-31",
34   total_portfolio_value: "$847,392.18",
35   asset_allocation: {
36     "US Large Cap Equity": "35.2%",
37     "US Small Cap Equity": "12.8%",
38     "International Developed Equity": "15.7%",
39     "Emerging Markets Equity": "6.3%",
40     "Investment Grade Bonds": "22.4%",
41     "High Yield Bonds": "4.2%",
42     "Cash & Money Market": "3.4%"
43   },
44   performance_summary: {
45     "Quarter-to-Date": "2.7%",
46     "Year-to-Date": "8.4%",
47     "1-Year": "12.1%",
48     "3-Year Annualized": "7.9%",
49     "Since Inception": "9.2%"
50   },
51   ai_analysis: {
52     observations: [
53       "Portfolio allocation closely aligns with moderate risk profile",
54       "Performance tracking above target benchmark by 1.3% year-to-date",
55       "Cash position appropriate for current market conditions"
56     ],
57     recommendations: [
58       "Consider small rebalancing to target allocation (equity slightly overweight)",
59       "Maintain current allocation given strong relative performance",
60       "Monitor international exposure given recent currency fluctuations"
61     ]
62   }
63 };
64

```

## Compliance Dashboard Mock Data

```

1  const mockComplianceDashboard = {
2    pending_reviews: [
3      {
4        id: "review_001",
5        client_name: "Robert J. Smith",
6        meeting_date: "2025-09-10",
7        ai_confidence: 96,
8        priority: "normal",
9        created: "2025-09-10T14:30:00Z",
10       regulatory_flags: 0,
11       requires_attention: false
12     },
13     {

```

```
14     id: "review_002",
15     client_name: "Maria Gonzalez",
16     meeting_date: "2025-09-09",
17     ai_confidence: 78,
18     priority: "high",
19     created: "2025-09-09T16:15:00Z",
20     regulatory_flags: 1,
21     requires_attention: true,
22     flag_reason: "Complex investment recommendation requiring additional documentation"
23   }
24 ],
25 audit_metrics: {
26   notes_processed_today: 12,
27   average_ai_confidence: 91,
28   human_review_time_avg: "4m 23s",
29   sec_compliance_rate: "100%",
30   regulatory_flags_total: 3,
31   approved_notes: 142,
32   pending_approval: 5
33 },
34 security_status: {
35   encryption_status: "Active - AES-256",
36   last_security_scan: "2025-09-10T02:00:00Z",
37   access_violations: 0,
38   audit_trail_integrity: "Verified",
39   data_retention_compliance: "Current"
40 }
41 };
42
```

UI/UX Design Requirements

Design System - Financial Compliance Theme

</> TypeScript

1 Colors:
2 - Primary: #1E3A8A (Trust Blue)
3 - Secondary: #059669 (Approval Green)
4 - Warning: #D97706 (Review Orange)
5 - Error: #DC2626 (Compliance Red)
6 - Neutral: #374151 (Professional Gray)
7 - Background: #F8FAFC (Clean White-Gray)
8
9 Typography:
10 - Headers: Inter Bold
11 - Body: Inter Regular
12 - Legal/Compliance: Inter Medium
13 - Data: JetBrains Mono
14
15 Compliance Indicators:
16 - Green checkmarks for approved items
17 - Orange warning icons for items needing review
18 - Red flags for compliance issues
19 - Lock icons for security features
20

Navigation Structure

</> TypeScript

1 Main Navigation:
2 |─ Dashboard (Today's meetings and pending reviews)
3 |─ Process Notes (Upload and AI processing)
4 |─ Review Queue (Compliance review workflow)
5 |─ Client Integration (CRM and portfolio views)
6 |─ Audit Trail (Complete activity history)
7 |─ Admin (Security and system management)
8
9 Compliance Sidebar:
10 |─ Pending Reviews (Items awaiting approval)
11 |─ Flagged Items (Compliance concerns)
12 |─ Approved Today (Completed reviews)

- 13
- └─ Audit Reports (Regulatory documentation)
- 14

Key User Flows

Primary Flow: Meeting Note Processing

1. Upload audio file from iPhone or paste transcript
2. Select client from Redtail CRM integration
3. Choose note template (quarterly review, annual review, etc.)
4. AI processes and generates SEC-compliant formatted notes
5. System flags for human review with confidence score
6. Compliance officer reviews, edits if needed, approves
7. Approved notes automatically posted to Redtail CRM
8. Complete audit trail documented for regulatory compliance

Secondary Flow: Portfolio Analysis Integration

1. From approved meeting notes, trigger portfolio analysis
2. System retrieves current Albridge portfolio data
3. AI analyzes portfolio against meeting discussion and recommendations
4. Generate portfolio-specific recommendations and compliance documentation
5. Results integrated into meeting notes and CRM record
6. Future Black Diamond integration preparation shown in preview mode

Implementation Notes

Security & Compliance Features

</> TypeScript

```
1 // Security status indicators throughout UI
2 interface SecurityStatus {
3   encryptionActive: boolean;
4   auditTrailIntact: boolean;
5   accessControlEnabled: boolean;
6   dataMinimizationCompliant: boolean;
7   humanOversightRequired: boolean;
8 }
9
10 // Compliance verification for each processed note
11 interface ComplianceVerification {
12   secRequirementsMet: boolean;
13   fiduciaryStandardApplied: boolean;
14   suitabilityDocumented: boolean;
15   conflictsOfInterestReviewed: boolean;
16   feeDisclosureCurrent: boolean;
17 }
18
```

Human Oversight Workflow

</> TypeScript

```
1 // Review workflow states
2 type ReviewStatus = 'pending' | 'in_review' | 'approved' | 'needs_revision' | 'escalated';
3
4 interface ReviewWorkflow {
5   aiConfidenceScore: number;
6   flaggedForReview: boolean;
7   humanReviewerAssigned: string;
8   reviewNotes: string[];
9   approvalTimestamp: string;
10  regulatoryRetentionDate: string;
11 }
```

## Success Criteria

### SEC Compliance Goals:

- ☒ All AI-generated notes include required regulatory elements
- ☒ Complete audit trail for every processed document
- ☒ Human review workflow prevents unsupervised AI outputs
- ☒ Data minimization clearly demonstrated (no SSNs processed)
- ☒ Tamper-proof audit trail with immutable timestamps

### User Experience Goals:

- ☒ Streamlined note processing reduces administrative time by 60%+
- ☒ Seamless CRM integration eliminates double data entry
- ☒ Clear compliance status indicators throughout interface
- ☒ Professional design appropriate for client-facing environments
- ☒ Mobile-responsive for iPhone audio upload workflow

### Technical Implementation:

- ☒ Mock all integrations with realistic financial advisory data
- ☒ Demonstrate complete compliance review workflow
- ☒ Show security features and audit capabilities
- ☒ Include error handling and escalation paths
- ☒ Future Black Diamond integration planning interface

Build a comprehensive prototype that demonstrates how AI can enhance wealth management compliance and efficiency while maintaining the rigorous oversight and documentation standards required in financial advisory services.