EE IT Specialist: Detailed Role Definition

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Document Purpose: Comprehensive definition of IT Specialist role and responsibilities for EE HH Recommendation System project

Role Overview

The EE IT Specialist serves as the critical bridge between business stakeholders and technical implementation teams, ensuring that the EE HH Recommendation functionality delivers business value while maintaining technical excellence and operational reliability.

Core Mission: Transform business requirements into working software solutions through effective coordination, rigorous quality assurance, and proactive problem-solving.

Detailed Responsibilities by Project Phase

Phase 1: Requirements Gathering & Analysis

Objective: Ensure complete understanding of business needs and translate them into actionable technical requirements.

Activities:

1. **Stakeholder Engagement**
   - Conduct workshops with business analysts, product owners, and end-users
   - Document current pain points and desired outcomes
   - Validate understanding through requirement playback sessions
   - Build consensus on priorities and scope
2. **Business Requirements Documentation**
   - Create functional requirement specifications
   - Document non-functional requirements (performance, security, scalability)
   - Define business rules and validation logic (`business_problem_summary.md:3`)
   - Map user workflows and system touchpoints
3. **User Story Creation**
   - Break down features into user stories following INVEST principles:
     - **I**ndependent: Can be developed separately
     - **N**egotiable: Details can be refined
     - **V**aluable: Delivers business benefit
     - **E**stimable: Team can estimate effort
     - **S**mall: Completable within one sprint
     - **T**estable: Clear acceptance criteria
   - Write acceptance criteria in Given-When-Then format
   - Link stories to business objectives and success metrics
4. **Integration Point Analysis**
   - Map data flows between systems (CC&B, Elektrum.ee, Sales Portal, Mobile Apps)
   - Document API requirements and data formats
   - Identify authentication and authorization needs
   - Assess integration complexity and potential risks
   - Reference existing integrations and patterns (e.g., LEO-25125 discount functionality)

Example Output: User Story

```
**US-001**: As an existing electricity customer, I want a unique promo code automatically
generated when my contract activates, so I can share it with friends.

**Business Value**: Enables viral customer acquisition channel

**Acceptance Criteria**:
- **Given** a new electricity contract is activated
- **When** the contract activation event is triggered in CC&B
- **Then** a unique 8-character alphanumeric promo code is generated
- **And** the code is stored in CC&B Account → Services tab
- **And** the code status is set to ACTIVE
- **And** the code is unique across all customer accounts (database constraint)

**Technical Notes**:
- Integration point: CC&B contract activation event listener
- Data model: Promo code table (code, account_id, status, start_date, created_at)
- Uniqueness validation: Database unique constraint + collision retry logic

**Definition of Ready**:
- [ ] Acceptance criteria clear and testable
- [ ] Integration approach confirmed with CC&B team
- [ ] Database schema design reviewed
- [ ] Test data requirements identified
```

Deliverables:

☐ Business Requirements Document
☐ Product Backlog (prioritized user stories)
☐ Integration Architecture Diagram
☐ Risk Assessment Matrix
☐ Glossary of domain terms (*business_problem_summary.md* Domain Acronyms)

Phase 2: Design & Planning

Objective: Ensure technical solution aligns with business requirements and is feasible to implement within project constraints.

Activities:

1. **Technical Architecture Review**
   - Participate in design sessions with development teams
   - Validate that proposed architecture addresses all business requirements
   - Review database schema designs (promo code tables, tracking tables)
   - Assess API design for code generation, validation, discount application
   - Ensure security considerations are addressed (code uniqueness, fraud prevention)
2. **Sprint Planning Support**
   - Help prioritize backlog items based on business value and dependencies
   - Clarify story requirements and answer questions from developers
   - Assist with story point estimation using Planning Poker
   - Identify cross-team dependencies and coordinate resolution
   - Commit to testing and documentation tasks for the sprint
3. **Test Strategy Development**
   - Define testing layers: Unit -> Integration -> E2E -> UAT -> Performance
   - Create test scenarios for each user story
   - Plan UAT approach with business stakeholders
   - Identify test data requirements (different discount groups, edge cases)
   - Coordinate test environment setup with DevOps team
4. **Documentation Planning**
   - Outline user documentation structure (user guides, FAQ)
   - Plan operations runbook content (troubleshooting, known issues)
   - Define API documentation standards (Swagger/OpenAPI)
   - Schedule knowledge transfer sessions for support team

Example Output: Test Strategy

Test Strategy: Promo Code Generation (Sprint 1)

Unit Tests (Development Team)
- Code generation algorithm produces unique codes
- Uniqueness collision retry logic works correctly
- Database constraints enforce uniqueness
- **Coverage Target**: 80%

Integration Tests (IT Specialist + QA)
- CC&B contract activation event triggers code generation
- Generated code stored correctly in database
- Manual code generation via CC&B UI works
- Error handling when generation fails

Test Data Requirements
- Active contracts for automatic generation testing
- Accounts without promo codes for manual generation testing
- Test accounts with existing codes (test duplicate prevention)

UAT Scenarios (Business Stakeholders)
- View generated promo code in CC&B Account → Services tab
- Manually generate code when automatic generation fails
- Verify code format and uniqueness

Performance Tests
- Code generation completes within 2 seconds
- Database lookup by code completes within 100ms
- System handles 1000 concurrent code generations

Deliverables:

- ☐ Technical Architecture Review Notes
- ☐ Sprint Plans with Story Commitments
- ☐ Test Strategy Document
- ☐ UAT Plan with Stakeholder Schedule
- ☐ Documentation Plan

Phase 3: Development & Implementation

Objective: Ensure development progresses smoothly with requirements being correctly implemented and blockers quickly resolved.

Activities:

1. **Daily Coordination**
   - Attend daily stand-up meetings (15 min at 9:00)
   - Track sprint progress against commitments
   - Identify and escalate blockers requiring business decisions
   - Facilitate communication between business and technical teams
   - Update sprint board and burndown charts

2. **Requirement Clarification**
   - Answer developer questions about business logic
   - Provide examples and use cases when requirements are unclear
   - Coordinate with business stakeholders for complex clarifications
   - Document requirement changes and update user stories
   - Assess impact of scope changes on sprint goals

3. **Feature Validation**
   - Review implemented features in development environment
   - Validate against acceptance criteria before QA testing
   - Provide feedback to developers on business logic correctness
   - Test integration points between systems
   - Verify error handling and edge cases

4. **Blocker Resolution**
   - Identify root cause of blockers (requirement ambiguity, technical challenge, dependency)
   - Coordinate with appropriate teams to resolve
   - Escalate to project manager when business decisions needed
   - Track blocker resolution time and communicate to stakeholders
   - Document lessons learned for retrospective

Example Daily Stand-up Update:

```
**Yesterday**:
- Validated promo code validation API with portal team
- Reviewed discount calculation logic implementation
- Updated US-009 acceptance criteria based on LEO-25125 reference

**Today**:
- Test discount application in staging environment
- Coordinate with CC&B team on database index creation
- Prepare test data for QA team (Sprint 3 stories)

**Blockers**:
- Waiting for CC&B team to confirm "Continuous bill discount"
  integration approach (escalated to tech lead)
```

Deliverables: Daily Sprint Status Updates • Requirement Clarification Notes • Updated User Stories (refined acceptance criteria) • Blocker Resolution Log

Phase 4: Testing & Quality Assurance

Objective: Ensure delivered solution meets all requirements and is ready for production deployment.

Activities:

1. **Test Case Design**
   - Create detailed test cases for integration testing
   - Define test data scenarios (happy path, edge cases, error conditions)
   - Document expected results for each test case
   - Ensure coverage for all acceptance criteria
   - Reference edge cases from `business_problem_summary.md` Section 8
2. **QA Coordination**
   - Work with QA team to execute test cases
   - Validate test results against acceptance criteria
   - Reproduce bugs reported by QA team
   - Provide additional context for bug investigation
   - Verify bug fixes before marking as resolved
3. **Bug Triage & Prioritization**
   - Assess bug severity (Critical, High, Medium, Low)
   - Determine priority based on business impact
   - Decide which bugs block release vs. can be deferred
   - Coordinate with Product Owner on triage decisions
   - Track bug resolution progress

Bug Severity Guidelines:

Severity	Definition	Example	Release Impact
Critical	System crash, data loss, security breach	Promo code generation crashes CC&B	Blocks release
High	Core functionality broken, no workaround	Discount not applied to referee account	Blocks release (usually)
Medium	Functionality impaired, workaround available	Code display formatting issue in portal	May defer if low business impact
Low	Minor cosmetic issue, no functional impact	Typo in user message	Defer to next sprint

1. **UAT Coordination**
   - Schedule UAT sessions with business stakeholders
   - Prepare UAT environment with realistic test data
   - Create UAT test scripts for stakeholders
   - Guide stakeholders through test scenarios
   - Collect and document feedback
   - Validate that solution meets business needs
   - Obtain formal UAT sign-off

Example UAT Test Script:

UAT Test Script: Promo Code Sharing (Sprint 2)

Objective: Verify that existing customers can view and share their promo codes

Prerequisites:
- Test account with active electricity contract
- Promo code already generated: "TEST2025"

Test Steps:

1. **View Promo Code**
   - Navigate to Elektrum.ee self-service portal
   - Log in with test credentials
   - Go to Account Dashboard
   - Expected: Promo code "TEST2025" is displayed with "Active" status

2. **Copy Code to Clipboard**
   - Click "Copy Code" button
   - Paste into text editor
   - Expected: Code "TEST2025" copied correctly

3. **Share via Email**
   - Click "Share" button
   - Select "Email" option
   - Expected: Email client opens with pre-filled message:
     "Join Elektrum using my code TEST2025 and we both get [X] EUR discount!"

4. **Share via WhatsApp (Mobile)**
   - Open Elektrum mobile app
   - Navigate to promo code section
   - Click "Share" button
   - Select "WhatsApp"
   - Expected: WhatsApp opens with pre-filled message

Sign-off: [ ] Pass / [ ] Fail
Comments: _____

Deliverables:

☐ Integration Test Cases & Results
☐ Bug Triage Reports
☐ UAT Test Scripts
☐ UAT Session Notes
☐ UAT Sign-off Document

Phase 5: Deployment & Release

Objective: Ensure smooth production deployment with minimal risk and clear rollback capability.

Activities:

1. **Release Planning**
   - Participate in deployment planning meetings
   - Validate deployment checklist completeness
   - Coordinate communication plan (customers, support team, operations)
   - Schedule deployment during low-traffic window
   - Ensure all stakeholders aware of deployment timeline

2. **Pre-Deployment Validation**
   - Verify all acceptance criteria met for release scope
   - Confirm all UAT sign-offs obtained
   - Validate database migration scripts tested on staging
   - Review rollback plan and ensure team understands procedure
   - Check monitoring and alerting configured

3. **Deployment Support**
   - Be available during deployment window (on-call)
   - Monitor deployment progress and assist with issues
   - Execute smoke tests immediately after deployment
   - Validate critical path functionality in production
   - Communicate deployment status to stakeholders

4. **Smoke Testing in Production**
   - Test promo code generation for new contract
   - Verify code display in CC&B and self-service portal
   - Test code validation API call
   - Confirm discount application works correctly
   - Check integration with mobile apps
   - Verify no regressions in existing functionality

Deployment Checklist:

Deployment Checklist: EE HH Recommendation System

Pre-Deployment (1 day before)
- [ ] All user stories in release scope marked "Done"
- [ ] UAT sign-off obtained from Product Owner
- [ ] Database migration scripts tested on staging
- [ ] Rollback plan documented and reviewed with team
- [ ] Monitoring dashboards configured
- [ ] Communication prepared (customer announcement email, support team briefing)
- [ ] Deployment runbook reviewed with operations team

Deployment Day
- [ ] Deployment window confirmed: [Date/Time]
- [ ] Team on-call roster confirmed
- [ ] Database backup completed
- [ ] Database migrations executed successfully
- [ ] Application deployment completed (blue-green switch)
- [ ] Smoke tests passed in production

- [ ] Monitoring shows normal system health
- [ ] Customer communication sent

Post-Deployment (First 24 hours)
- [ ] No critical errors in logs
- [ ] System performance metrics normal
- [ ] No increase in support tickets
- [ ] Promo code generation rate as expected
- [ ] Post-deployment review meeting scheduled

Deliverables:

☐ Deployment Checklist (completed)
☐ Smoke Test Results
☐ Deployment Communication Log
☐ Rollback Plan Document

Phase 6: Handover & Operational Transition

Objective: Ensure smooth handover to operations team with all necessary documentation and knowledge transfer for ongoing system support.

Activities:

1. **Operations Documentation**
   - Create comprehensive operations runbook
   - Document system architecture and integration points
   - Provide troubleshooting guides for common issues
   - Document monitoring setup and alert thresholds
   - Create incident response procedures
2. **Knowledge Transfer**
   - Conduct training sessions with operations/support team
   - Walk through key system workflows and business logic
   - Review monitoring dashboards and alert configurations
   - Share lessons learned from deployment and testing
   - Provide contact list for escalation (CC&B team, Portal team, etc.)
3. **Handover Documentation Package**
   - System Architecture Diagram (with integration points)
   - API Documentation (CC&B, Portal, Mobile endpoints)
   - Database Schema (tables, relationships, key indexes)
   - Configuration Guide (environment variables, feature flags)
   - Monitoring & Alerting Setup
   - Deployment Procedures & Rollback Plan
   - Known Issues & Workarounds
   - Support Escalation Matrix

Operations Runbook Contents:

Promo Code System - Operations Runbook

System Overview
- **Purpose**: Customer referral program via promo codes
- **Key Components**: CC&B (generation, billing), Portal (display, sharing), Mobile (sharing
- **Integration Points**: CC&B API, Portal API, Mobile API

Monitoring
- **Dashboard**: [Link to monitoring dashboard]
- **Key Metrics**: Generation rate, validation rate, discount application success
- **Alert Channels**: #elektrum-alerts (Slack), ops-team@elektrum.ee

Common Issues & Solutions

Issue: Promo code generation fails
- **Symptoms**: Error code 500 from CC&B API
- **Likely Cause**: Database connection pool exhausted
- **Resolution**: Restart CC&B service, check connection pool config
- **Escalation**: CC&B team lead (contact in escalation matrix)

Issue: Discount not applied correctly
- **Symptoms**: Customer reports incorrect bill amount
- **Likely Cause**: Timing issue (billing cycle vs activation date)
- **Resolution**: Check billing log, verify activation timestamp
- **Escalation**: Business analyst + CC&B billing team

Deployment Schedule
- **Release Window**: Sundays 22:00-02:00 (low traffic)
- **Deployment Process**: Blue-green deployment via Jenkins
- **Rollback SLA**: < 15 minutes if critical issue detected

Contacts
- **IT Specialist**: [Name, Email, Phone]
- **CC&B Team Lead**: [Name, Email, Phone]
- **Portal Team Lead**: [Name, Email, Phone]
- **Product Owner**: [Name, Email]

Deliverables:

- ☐ Operations Runbook (completed)
- ☐ Knowledge Transfer Sessions (conducted)
- ☐ Handover Documentation Package (delivered)
- ☐ Operations Team Sign-off (obtained)

Key Skills & Competencies

Technical Skills

- Understanding of web application architecture (frontend, backend, database)
- Familiarity with integration patterns (REST APIs, event-driven architecture)
- Basic knowledge of databases (SQL queries, schema design concepts)
- Awareness of security best practices (authentication, authorization, data protection)
- Experience with testing methodologies (unit, integration, E2E, UAT)

Business Skills

- Requirements elicitation and documentation
- Business process analysis and mapping
- Stakeholder management and communication
- Risk assessment and mitigation planning
- Business case understanding (ROI, cost-benefit analysis)

Agile Skills

- User story writing (INVEST principles, acceptance criteria)
- Sprint planning and estimation (Planning Poker, story points)
- Facilitation of Agile ceremonies (stand-ups, reviews, retrospectives)
- Backlog management and prioritization
- Continuous improvement mindset

Soft Skills

- Communication: Clear, concise, audience-appropriate
- Collaboration: Work effectively across teams and disciplines
- Problem-solving: Analytical thinking, root cause analysis
- Adaptability: Handle changing requirements and priorities
- Attention to detail: Catch edge cases and potential issues early

Success Metrics for IT Specialist Role

Metric	Target	Measurement Method
Requirements Clarity	<5 requirement clarifications per sprint	Sprint retrospective feedback
Story Acceptance Rate	>90% of stories accepted first time	Sprint review outcomes
UAT Pass Rate	>95% of UAT scenarios pass	UAT session results
Bug Escape Rate	<3 production bugs per sprint	Production incident tracking
Stakeholder Satisfaction	>4.0/5.0 rating	End of Sprint 4 survey
Documentation Quality	>4.0/5.0 rating	Team feedback survey

Typical Week in the Life of IT Specialist

Monday

- **9:00-9:15**: Daily stand-up
- **9:30-11:00**: Sprint planning (if sprint start) or backlog refinement
- **11:00-12:00**: Review new user stories with business analyst
- **14:00-16:00**: Integration testing of last sprint's features
- **16:00-17:00**: Document test results and update stories

Tuesday

- **9:00-9:15**: Daily stand-up
- **9:30-12:00**: UAT session with business stakeholders (Sprint 2 features)
- **13:00-14:30**: Bug triage meeting with QA team
- **14:30-17:00**: Update UAT test scripts for upcoming sprint

Wednesday

- **9:00-9:15**: Daily stand-up
- **9:30-11:00**: Technical coordination meeting with CC&B team
- **11:00-12:30**: Review API documentation and provide feedback
- **14:00-16:00**: Test promo code validation in staging environment
- **16:00-17:00**: Prepare demo for Friday's sprint review

Thursday

- **9:00-9:15**: Daily stand-up
- **9:30-11:30**: Investigate blocker reported by developer (discount calculation issue)
- **11:30-13:00**: Coordinate with business stakeholder to clarify discount group logic
- **14:00-16:00**: Re-test after fix deployed
- **16:00-17:00**: Update documentation with clarifications

Friday

- **9:00-9:15**: Daily stand-up
- **10:00-12:00**: Sprint review - demo completed features to stakeholders
- **13:00-14:30**: Sprint retrospective - process improvements
- **14:30-16:00**: Sprint planning prep for next sprint (review backlog, identify questions)
- **16:00-17:00**: Weekly status report to project manager

Cross-Functional Collaboration

The IT Specialist works closely with multiple teams:

Team	Frequency	Key Collaboration Areas
Business Analysts	Daily	Requirements clarification, user story refinement, UAT coordination
CC&B Development	Daily (during sprints)	Integration design, API contracts, database schema, technical blockers
Portal Development	Daily (during sprints)	UI/UX validation, API integration, responsive design testing
Mobile Development	Weekly	Mobile app integration, share functionality, platform-specific testing
QA Team	Daily (during testing)	Test case review, bug triage, regression testing coordination
Operations/DevOps	Weekly	Deployment planning, monitoring setup, incident response
Customer Support	Ad-hoc	Knowledge transfer, troubleshooting guidance, user issue resolution
Product Owner	Weekly (sprint ceremonies)	Backlog prioritization, acceptance decisions, roadmap planning

Key Deliverables Summary

Deliverable	Purpose	Audience	Frequency
User Stories	Define requirements	Development team	Every sprint
Test Cases	Ensure quality	QA team	Every sprint
UAT Scripts	Validate business needs	Business stakeholders	Per feature
Deployment Checklist	Ensure release readiness	Operations team	Per release
Incident Reports	Document and learn from issues	Management, team	Per incident
Sprint Status Updates	Track progress	Project manager, stakeholders	Weekly
Operations Runbook	Support production system	Support team	Continuously updated

Conclusion

The EE IT Specialist role is a multifaceted position requiring a blend of technical understanding, business acumen, and strong communication skills. Success means delivering business value while maintaining quality standards and enabling teams through clear communication and comprehensive documentation.