

Market Requirements Document (MRD)

TeamPulse: AI-Powered Back-Office Operations Assistant

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Executive Summary

TeamPulse is an AI-powered administrative and operations assistant designed to automate routine back-office tasks, eliminate manual reporting, and provide instant access to critical business insights. The platform consolidates sales data, attendance records, task management, and client information into a single intelligent interface that generates reports, answers natural language queries, and proactively alerts administrators to operational anomalies.

Target Market: Small to medium-sized businesses (10-500 employees) across sectors including retail, professional services, healthcare, manufacturing, and hospitality that rely on manual administrative processes.

Key Value Proposition: Transform hours of daily administrative work into seconds of intelligent automation, enabling operations teams to focus on strategic decisions rather than data compilation.

Market Opportunity

Problem Statement

Operations and administrative teams face recurring challenges:

- **Manual Report Generation:** 3-5 hours weekly spent compiling sales reports, attendance summaries, and performance reviews from disparate systems
- **Reactive Management:** Issues like client payment delays, attendance problems, or task bottlenecks are discovered too late
- **Data Fragmentation:** Critical business data exists across spreadsheets, CRM systems, HR platforms, and project management tools
- **Limited Accessibility:** Only technically proficient staff can extract insights from raw data

- **Inconsistent Reporting:** Report quality and timeliness varies based on who prepares them

Market Size & Opportunity

- **TAM (Total Addressable Market):** \$12B globally (administrative automation and business intelligence software for SMBs)
- **SAM (Serviceable Addressable Market):** \$4.2B (English-speaking markets with digital record-keeping)
- **SOM (Serviceable Obtainable Market):** \$180M (achievable within 3 years based on competitive positioning)

Target Customer Segments

Primary Segment: Operations Managers & Office Administrators

- Company size: 25-200 employees
- Managing 5+ team members
- Currently using spreadsheets + 2-3 SaaS tools
- Pain: Spending 10+ hours weekly on administrative tasks

Secondary Segment: Small Business Owners

- Company size: 10-50 employees
- Wearing multiple hats (operations, finance, HR)
- Pain: No dedicated admin staff, limited time for oversight

Tertiary Segment: Department Heads

- Mid-size companies (200-500 employees)
- Managing departmental operations
- Pain: Need department-level insights without burdening IT/Analytics teams

Product Vision & Strategy

Vision Statement

TeamPulse envisions a future where every business, regardless of size, has access to enterprise-grade operational intelligence through a conversational AI assistant that works 24/7 to monitor, report, and optimize back-office operations.

Product Positioning

Category: AI-Powered Operations Intelligence Platform

Positioning Statement:

For operations managers and business owners who struggle with manual administrative work and delayed operational insights, TeamPulse is an AI assistant that automatically monitors business data, generates intelligent reports, and proactively alerts you to issues before they escalate unlike traditional business intelligence tools that require technical expertise and constant manual effort.

Product Strategy

Phase 1 (MVP - Months 0-6): Core data ingestion, report generation, and Q&A capabilities for sales, attendance, and basic task tracking

Phase 2 (Months 6-12): Proactive alerting system, performance analytics, and integrations with popular business tools (Slack, Google Workspace, Microsoft 365)

Phase 3 (Months 12-18): Predictive analytics, automated workflow triggers, and multi-department coordination features

Core Requirements

1. Data Integration & Management

1.1 Data Source Connectivity

Priority: P0 (Must Have)

- **CSV/Excel Upload:** Support for manual file uploads (sales reports, attendance sheets, task lists)
- **Google Sheets Integration:** Real-time sync with Google Sheets for live data updates
- **API Connections:** REST API endpoints for common business tools (Salesforce, HubSpot, BambooHR, Asana, Monday.com)
- **Email Parsing:** Extract structured data from routine email reports

Acceptance Criteria:

- Users can connect 3+ data sources within 10 minutes
- Data syncs automatically every 15 minutes (configurable)
- Support for 10,000+ rows per data source
- Data is processed and queryable within 2 minutes of ingestion

1.2 Data Schema Recognition

Priority: P0 (Must Have)

- **Intelligent Column Mapping:** AI automatically identifies columns (e.g., "Employee Name," "Sale Amount," "Check-in Time")
- **Custom Field Definition:** Users can define custom business metrics and categories
- **Multi-format Support:** Handle various date formats, currency symbols, and naming conventions

Acceptance Criteria:

- 85%+ accuracy in automatic field detection
- Users can manually override any auto-detected mapping
- System learns from user corrections over time

1.3 Data Quality & Validation

Priority: P1 (Should Have)

- **Duplicate Detection:** Flag potential duplicate entries
- **Missing Data Alerts:** Notify admins of incomplete records
- **Anomaly Detection:** Identify unusual patterns (e.g., sale amount 10x higher than average)

2. Intelligent Report Generation

2.1 Automated Daily Reports

Priority: P0 (Must Have)

Generate daily summaries including:

- **Sales Summary:** Total revenue, transactions, top-selling items, comparison to previous day/week
- **Attendance Overview:** Present/absent staff, late arrivals, early departures
- **Task Completion:** Tasks completed vs. assigned, overdue items
- **Client Activity:** New clients, recent payments, outstanding invoices

Delivery Options:

- Email (scheduled time, configurable recipients)
- Slack/Teams notification
- In-app dashboard view
- PDF download

Acceptance Criteria:

- Reports generated automatically by 7 AM local time
- Customizable templates for different business types
- Reports render correctly on mobile devices

2.2 Weekly Performance Summaries

Priority: P0 (Must Have)

Generate comprehensive weekly reports including:

- **Staff Performance:** Individual productivity metrics, attendance patterns, task completion rates
- **Sales Trends:** Week-over-week growth, product/service performance, customer acquisition
- **Operational Health:** Average response times, bottleneck identification, team workload distribution

Acceptance Criteria:

- Delivered every Monday morning summarizing previous week
- Comparative analysis (vs. previous week, same week last month/year)
- Actionable insights and recommendations included

2.3 Custom Report Builder

Priority: P1 (Should Have)

- **Template Library:** Pre-built templates for common report types
- **Drag-and-Drop Interface:** Non-technical users can create custom reports
- **Scheduled Reports:** Set up recurring reports with specific parameters

3. Natural Language Query Interface

3.1 Conversational Q&A

Priority: P0 (Must Have)

Users can ask questions in plain English such as:

- "Who didn't come to work yesterday?"
- "Which clients haven't paid this month?"
- "Show me Sarah's sales performance this week"
- "List all overdue tasks"

- "What was our revenue on December 10th?"
- "Compare this month's attendance to last month"

Capabilities:

- Understand context and follow-up questions
- Handle ambiguous queries ("yesterday," "last week," "recently")
- Support comparison queries
- Provide citations/data sources for answers

Acceptance Criteria:

- 90%+ query accuracy for common operational questions
- Response time under 3 seconds
- Natural language responses with supporting data visualization when relevant

3.2 Multi-turn Conversations

Priority: P1 (Should Have)

- Maintain conversation context across multiple queries
- Clarify ambiguous requests before providing answers
- Suggest related questions based on initial query

3.3 Voice Interface

Priority: P2 (Nice to Have)

- Voice-to-text query input
- Voice responses for hands-free operation

4. Proactive Alerting & Notifications

4.1 Configurable Alert Rules

Priority: P0 (Must Have)

Notify admins when:

- **Attendance Issues:** More than X employees absent, specific employee absent Y days in a row
- **Payment Delays:** Client invoice overdue by Z days, payment pattern deviation
- **Performance Concerns:** Task completion rate drops below threshold, employee productivity decline

- **Sales Anomalies:** Daily revenue below target, unusual transaction patterns
- **Capacity Issues:** Team workload exceeds healthy limits

Delivery Channels:

- Push notifications (web/mobile app)
- Email
- SMS (for critical alerts)
- Slack/Teams messages

Acceptance Criteria:

- Users can create custom alert rules without coding
- Alert fatigue prevention (smart grouping, digest mode)
- Snooze and acknowledge options

4.2 Smart Alert Prioritization

Priority: P1 (Should Have)

- AI categorizes alerts by urgency (Critical, High, Medium, Low)
- Machine learning reduces false positives over time
- Context-aware notifications (e.g., don't alert about weekend attendance for 5-day work weeks)

5. Data Visualization & Dashboards

5.1 Real-time Operations Dashboard

Priority: P0 (Must Have)

Display at-a-glance view of:

- Today's attendance vs. expected
- Current week sales vs. target
- Active tasks and completion status
- Recent alerts and notifications
- Quick access to common queries

Acceptance Criteria:

- Dashboard loads in under 2 seconds
- Mobile-responsive design
- Customizable widget arrangement

5.2 Trend Analysis & Charting

Priority: P1 (Should Have)

- Line charts for time-series data (sales trends, attendance patterns)
- Bar charts for comparisons (team performance, product sales)
- Heat maps for patterns (busiest days, peak hours)
- Export charts as images or embed in presentations

6. User Management & Permissions

6.1 Role-Based Access Control

Priority: P0 (Must Have)

Roles:

- **Admin:** Full access to all data, settings, and reports
- **Manager:** Access to team-specific data and reports
- **Viewer:** Read-only access to designated reports
- **Contributor:** Can input data but limited report access

Acceptance Criteria:

- Granular permissions at data source and report level
- Easy role assignment and modification
- Audit logs for permission changes

6.2 Team Workspaces

Priority: P1 (Should Have)

- Separate workspaces for departments/teams
- Shared and private reports
- Cross-workspace reporting for admins

Technical Requirements

Architecture

- **Cloud-native:** Scalable, serverless architecture

- **AI/ML Stack:** Integration with Claude API for natural language understanding and report generation
- **Data Storage:** Encrypted database with automatic backups
- **API-first Design:** RESTful APIs for all integrations

Security & Compliance

- **Data Encryption:** At-rest and in-transit encryption (AES-256)
- **Authentication:** Multi-factor authentication support
- **Compliance:** SOC 2 Type II, GDPR compliant
- **Data Retention:** Configurable retention policies
- **Audit Logging:** Complete audit trail of data access and changes

Performance

- **Query Response Time:** <3 seconds for 95% of queries
- **Report Generation:** Daily reports generated in <30 seconds
- **Uptime SLA:** 99.9% availability
- **Concurrent Users:** Support 100+ simultaneous users per account

Integrations

Phase 1 (MVP):

- Google Sheets
- Microsoft Excel (file upload)
- CSV/TSV import
- Email (IMAP)

Phase 2:

- Slack, Microsoft Teams
- Google Workspace, Microsoft 365
- Salesforce, HubSpot (CRM)
- BambooHR, Gusto (HR)
- Asana, Monday.com (Project Management)

Phase 3:

- QuickBooks, Xero (Accounting)
- Shopify, WooCommerce (E-commerce)
- Zendesk, Intercom (Support)

User Experience Requirements

Onboarding Flow

1. **Account Creation:** Email/SSO sign-up (< 2 minutes)
2. **Data Source Connection:** Guided setup for first data source (< 5 minutes)
3. **Sample Query Tutorial:** Interactive guide showing key questions to ask
4. **First Report Setup:** Configure daily report preferences
5. **Alert Configuration:** Set up 2-3 critical alerts

Success Metric: 70%+ of new users complete onboarding and ask first query within 24 hours

Mobile Experience

- **Responsive Web App:** Works on all mobile browsers
- **Native Apps:** iOS and Android (Phase 2)
- **Core Mobile Features:**
 - View daily reports
 - Ask quick questions
 - Receive and acknowledge alerts
 - Review dashboard metrics

Success Metrics & KPIs

Product Metrics

- **Activation Rate:** % of signups who connect data and generate first report
- **Daily Active Users (DAU):** % of users who engage daily
- **Query Volume:** Average queries per user per day
- **Report Engagement:** % of generated reports that are opened/read
- **Time to Insight:** Average time from question to actionable answer

Business Metrics

- **Customer Acquisition Cost (CAC):** Target <\$500
- **Monthly Recurring Revenue (MRR):** Growth rate target 15-20% monthly
- **Customer Lifetime Value (LTV):** Target >3x CAC
- **Net Revenue Retention:** Target >110%
- **Churn Rate:** Target <5% monthly

User Satisfaction Metrics

- **Net Promoter Score (NPS):** Target >50
- **Customer Satisfaction (CSAT):** Target >4.5/5
- **Time Saved:** Self-reported hours saved per week (target: 5+ hours)

Go-to-Market Strategy

Pricing Model

Freemium Tier:

- Up to 2 data sources
- 50 queries per month
- Basic daily reports
- 7-day data history

Professional Tier (#50,000/month):

- Unlimited data sources
- Unlimited queries
- Custom reports and alerts
- 2-year data history
- Priority support

Business Tier (#300,000/month):

- Everything in Professional
- Multi-workspace support
- Advanced analytics and predictions
- API access
- Dedicated account manager

Enterprise (Custom pricing):

- Everything in Business
- Custom integrations
- On-premise deployment option
- SLA guarantees
- Custom training

Launch Strategy

Phase 1: Private Beta (Month 1-2)

- 50 design partner customers
- Heavy feedback collection and iteration
- Focus on operations managers in service businesses

Phase 2: Public Beta (Month 3-4)

- Open signups with waitlist
- Content marketing (blog posts on admin efficiency)
- Product Hunt launch

Phase 3: General Availability (Month 5-6)

- Full feature set available
- Paid tier launch
- Partnerships with business coaching/consulting firms

Marketing Channels

1. **Content Marketing:** Blog posts, case studies, ROI calculators
2. **SEO:** Target keywords like "automated business reports," "attendance tracking software"
3. **Paid Ads:** Google Ads, LinkedIn Ads targeting operations managers
4. **Partnerships:** Integrate with ecosystem partners (Google Workspace, Slack)
5. **Community:** Subreddit, LinkedIn group for operations professionals

Competitive Analysis

Direct Competitors

1. Workday Adaptive Planning

- Strengths: Comprehensive, enterprise-grade
- Weaknesses: Complex, expensive, requires dedicated analyst
- Differentiation: TeamPulse is conversational, affordable, and self-service

2. Zoho Analytics

- Strengths: Broad integration ecosystem, customizable
- Weaknesses: Steep learning curve, requires manual report building
- Differentiation: TeamPulse automates reports and uses natural language

3. Microsoft Power BI

- Strengths: Powerful visualization, Microsoft ecosystem integration

- Weaknesses: Technical expertise required, not conversational
- Differentiation: TeamPulse is designed for non-technical users

Indirect Competitors

- Google Sheets + manual processes
- Industry-specific software with limited cross-functional visibility
- General-purpose AI assistants (ChatGPT) without business data integration

Competitive Advantages

1. **Conversational-first interface** reduces learning curve to zero
2. **Proactive alerting** shifts from reactive to preventive management
3. **Rapid setup** (minutes vs. weeks for traditional BI tools)
4. **Affordable pricing** accessible to small businesses
5. **AI-generated insights** not just data visualization

Risks & Mitigation

Technical Risks

Risk: AI query accuracy below user expectations

Mitigation: Extensive testing with diverse datasets, clear confidence scoring, fallback to suggested queries

Risk: Data integration complexity across diverse systems

Mitigation: Start with simple formats (CSV, Google Sheets), gradually add complex integrations

Risk: Performance degradation with large datasets

Mitigation: Implement data pagination, summary tables, and archival strategies

Market Risks

Risk: Low willingness to pay for admin automation

Mitigation: Clear ROI messaging (hours saved = cost justified), freemium model for adoption

Risk: Competition from larger, established players

Mitigation: Focus on underserved SMB segment, emphasize ease of use

Risk: Data privacy concerns

Mitigation: Transparent security practices, compliance certifications, customer data controls

Operational Risks

Risk: Customer support burden from diverse use cases

Mitigation: Comprehensive documentation, in-app tutorials, community forum

Risk: Scaling integrations and customizations

Mitigation: Modular architecture, partner ecosystem for specialized integrations

Development Roadmap

MVP (Months 0-3)

- Basic data ingestion (CSV, Google Sheets)
- Natural language Q&A for sales and attendance
- Daily automated reports (email delivery)
- Simple alert system (3-5 preset alert types)
- Web application (desktop and mobile web)

Version 1.0 (Months 3-6)

- Custom alert builder
- Weekly performance summaries
- Basic data visualization dashboard
- Slack/Teams integration
- User roles and permissions

Version 1.5 (Months 6-9)

- Advanced integrations (CRM, HR systems)
- Custom report builder
- Mobile native apps (iOS, Android)
- API access for power users
- Multi-workspace support

Version 2.0 (Months 9-12)

- Predictive analytics (forecast sales, identify flight risk)
- Automated workflow triggers (e.g., auto-follow-up on late payments)
- Voice interface
- Advanced data transformation tools
- White-label option for partners

Success Criteria for Launch

The MVP will be considered successful if within 3 months of general availability:

1. **50+ paying customers** on Professional or Business tiers
2. **NPS score >40** indicating strong product-market fit
3. **70%+ of users** engage with product at least 3x per week
4. **Average time saved** self-reported as >3 hours per week
5. **<10% monthly churn** indicating value retention

Appendix

Example Use Cases

Use Case 1: Retail Store Manager

- Daily morning report shows yesterday's sales, staff attendance, and inventory alerts
- Asks: "Which products sold best this week?"
- Receives alert: "Sarah has been absent 3 days this week"
- Reviews weekly staff performance to prepare for team meeting

Use Case 2: Professional Services Firm

- Weekly report summarizes billable hours, project progress, and client payments
- Asks: "Which clients are at risk of churn?"
- Receives alert: "ABC Corp invoice overdue by 15 days"
- Generates custom report for board meeting showing YTD performance

Use Case 3: Healthcare Clinic

- Daily report shows patient appointments, staff schedules, and no-show rates
- Asks: "What's our average patient wait time this month?"
- Receives alert: "Appointment cancellations 30% higher than usual"
- Reviews staff utilization to optimize scheduling

Glossary

- **Data Source:** Any system or file containing business data (CRM, spreadsheet, HR system)
- **Query:** Natural language question asked by user to retrieve information
- **Alert:** Proactive notification triggered by predefined business rule
- **Report:** Structured summary of business data delivered on a schedule
- **Workspace:** Isolated environment for a team or department with specific data access

Document Approval:

- ☐ Product Management
- ☐ Engineering Leadership
- ☐ Design Leadership
- ☐ Executive Sponsor

Next Steps:

1. Engineering feasibility review (Week 1)
2. Design sprint for MVP flows (Week 2-3)
3. Technical architecture specification (Week 3-4)
4. Development sprint planning (Week 4)
5. Beta partner recruitment begins (Week 4)