

FUNCTIONAL REQUIREMENTS

1. User Authentication

- Sign-Up Functionality:
 - Allow new users to register via email/password or third-party providers (GitHub, Google, Microsoft).
 - Include email verification for email/password sign-ups.
 - Optional: Invite-only sign-up (e.g., Managers generate invites for Team Members).
- Login Functionality:
 - Support email/password, SSO, and third-party authentication.
 - Enable optional Multi-Factor Authentication (MFA) for enhanced security.
 - Implement session management (e.g., auto-logout after 30 minutes of inactivity).

2. User Roles

- Manager Role:
 - View team and individual performance metrics.
 - Access detailed reports and trend visualizations.
 - Receive alerts and scheduled performance summaries.
 - Set performance goals and track progress (if optional).
- Team Member Role:
 - View personal metrics and contributions.
 - Receive AI-driven suggestions for improvement.
 - See team-level insights with appropriate privacy.

3. DORA Metrics Collection

- Automatically collect and compute:
 - Deployment Frequency
 - Lead Time to Change
 - Mean Time to Recover
 - Change Failure Rate
- Source data from version control (e.g., GitHub) and CI/CD tools.

4. Team and Individual Metrics

- Metrics must be viewable:
 - At the team level for group performance.
 - At the individual level with privacy-conscious display.

5. AI Code Analysis

- Analyze pull requests and commits to:
 - Identify code quality issues affecting metrics.
 - Suggest improvements and detect root causes of performance changes.

6. AI-Assisted Commit Messages

- Use AI to:
 - Suggest or auto-generate meaningful, standardized commit messages.
 - Improve consistency and clarity in commit logs.

7. Commit Compliance Tracking

- Implement a feature to:
 - Track daily commit activity per developer.
 - Alert users/managers if no commit is made on a workday.
 - Encourage timely commits to avoid code loss or rewriting.
 - Optionally: integrate reminders or soft enforcement policies.

8. Performance Dashboard

- Role-based dashboards displaying:
 - Real-time DORA and custom metrics.
 - Team/individual progress and trends.
 - AI insights and goal progress (if enabled).

9. Automated Reporting

- Generate:
 - Regular reports (daily, weekly, monthly).
 - Real-time alerts on threshold breaches or anomalies.

10.Integration with Development Tools

- API-based integration with:
 - GitHub, GitLab, Jira, etc.
- Reduce manual input and support seamless workflows.

11.Metrics Overview & Detailed Reporting

- Summary dashboards for high-level views.
- Drill-down features for:
 - Historical metric tracking
 - Event-level detail (e.g., specific commits or deployments)