

Contributing to Anwar Sales Ecosystem

Thank you for your interest in contributing to the Anwar Sales Ecosystem! This document provides guidelines for contributing to this project.

How to Contribute

1. Report Issues

- Use GitHub Issues to report bugs or suggest features
- Provide clear descriptions and steps to reproduce
- Include relevant system information and error messages

2. Submit Code Changes

- Fork the repository
- Create a feature branch: `git checkout -b feature/your-feature-name`
- Make your changes following our coding standards
- Test thoroughly using our test suite
- Submit a pull request with a clear description

3. Code Standards

JavaScript Standards

- Use descriptive function and variable names
- Add JSDoc comments for all functions
- Follow Google Apps Script best practices
- Handle errors gracefully with try-catch blocks

Documentation Standards

- Update README.md for significant changes
- Document new functions in API reference
- Include user stories for new features
- Update workflow diagrams if applicable

4. Testing Requirements

- All new features must include tests
- Run existing test suite: `runAllTests()`
- Ensure 100% test coverage for new functions
- Test WhatsApp notifications in development environment

5. Commit Message Format

```
<type>(<scope>): <subject>
```

```
<body>
```

```
<footer>
```

Types:

- **feat**: New feature
- **fix**: Bug fix
- **docs**: Documentation changes
- **test**: Adding or updating tests
- **refactor**: Code refactoring
- **chore**: Maintenance tasks

Example:

```
feat(order): Add automatic dispute escalation
```

- Implement automatic BDO notification when engineer unavailable
- Add configurable escalation timeouts
- Include fallback notification mechanisms

```
Closes #123
```

Development Setup

Prerequisites

- Google Apps Script access
- Node.js (for local development tools)
- WhatsApp Business API credentials

Local Development

1. Clone the repository
2. Copy **.env.example** to **.env** and configure
3. Update **config.js** with your spreadsheet IDs
4. Run initial setup: **setupProject()**
5. Create test data: **createTestData()**

Testing

- Run all tests: **runAllTests()**
- Test specific modules: **runVisitTests()**, **runOrderTests()**
- Manual testing using Google Forms

Code Review Process

Review Criteria

- Code follows established patterns
- Proper error handling implemented
- Documentation updated
- Tests pass successfully
- Performance impact considered

Review Checklist

- ☐ Code is readable and well-documented
- ☐ Error handling is comprehensive
- ☐ Tests cover new functionality
- ☐ No security vulnerabilities
- ☐ Performance is acceptable
- ☐ Documentation is updated

Bug Reports

Bug Report Template

```
**Bug Description:**
Clear description of the issue

**Steps to Reproduce:**
1. Step one
2. Step two
3. Step three

**Expected Behavior:**
What should happen

**Actual Behavior:**
What actually happens

**Environment:**
- Google Apps Script version
- Browser used
- Form/module affected

**Error Messages:**
Include any error messages or logs
```

Feature Requests

Feature Request Template

****Feature Description:****

Clear description of the proposed feature

****User Story:****

As a [user type], I want [goal] so that [benefit]

****Business Justification:****

Why this feature is needed

****Technical Considerations:****

Any technical requirements or constraints

****Acceptance Criteria:****

- [] Criterion 1
- [] Criterion 2
- [] Criterion 3

Security Guidelines

Security Best Practices

- Never commit API keys or credentials
- Use environment variables for sensitive data
- Validate all user inputs
- Implement proper access controls
- Follow Google Apps Script security guidelines

Reporting Security Issues

- **DO NOT** create public issues for security vulnerabilities
- Email security issues to: [security@anwarsales.com]
- Include detailed description and reproduction steps
- Allow reasonable time for response before disclosure

Resources

Documentation

- [README.md](#) - Complete system documentation
- [API Reference](#) - Function documentation
- [User Stories](#) - Feature requirements

Development Tools

- [Google Apps Script](#)
- [Google Sheets API](#)
- [WhatsApp Business API](#)

Community

- GitHub Issues for questions and discussions
- Project Wiki for detailed documentation
- Regular contributor meetings (TBD)

Roadmap

Short-term Goals

- Mobile app integration
- Advanced analytics dashboard
- Performance optimization
- Multi-language support

Long-term Vision

- AI-powered recommendations
- Machine learning for demand prediction
- Integration with external ERP systems
- Advanced reporting and business intelligence

Thank you for contributing to the Anwar Sales Ecosystem! Together, we're building a better construction supply chain management system.