

# GitHub Repository Configuration Guide

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## COMPLETED: Repository Sync

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- **Status:** Successfully pushed local changes to GitHub
- **Default Branch:** `safe-improvements`
- **Last Push:** 2025-06-11T21:37:06Z
- **Branches Synced:** All local branches are now synchronized with remote

## REQUIRED: Repository Settings Configuration

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### 1. Branch Protection Rules

Configure protection for the `safe-improvements` branch:

```
# Using GitHub CLI (requires authentication)
gh api repos/romanchaa997/Audityzer/branches/safe-improvements/protection \
  --method PUT \
  --field required_status_checks='{"strict":true,"contexts":["ci"]}' \
  --field enforce_admins=true \
  --field required_pull_request_reviews='{"required_approving_review_count":
1,"dismiss_stale_reviews":true}' \
  --field restrictions=null
```

#### Manual Configuration via GitHub Web UI:

1. Go to Settings → Branches
2. Add rule for `safe-improvements`
3. Enable:
  - Require pull request reviews before merging
  - Require status checks to pass before merging
  - Require branches to be up to date before merging
  - Include administrators

### 2. Environments Setup

Create three environments with appropriate protection rules:

#### Production Environment:

```
gh api repos/romanchaa997/Audityzer/environments/production --method PUT \
  --field wait_timer=0 \
  --field reviewers='[{"type":"User","id":USER_ID}]' \
  --field deployment_branch_policy='{"protected_branches":true,"custom_branch_policies":false}'
```

#### Staging Environment:

```
gh api repos/romanchaa997/Audityzer/environments/staging --method PUT \
  --field wait_timer=0 \
  --field deployment_branch_policy='{"protected_branches":false,"custom_branch_policies":true}'
```

#### Development Environment:

```
gh api repos/romanchaa997/Audityzer/environments/development --method PUT \
  --field wait_timer=0
```

### 3. GitHub Actions Configuration

Ensure workflows are properly configured:

#### Current Workflows:

- .github/workflows/ci-cd.yml - Main CI/CD pipeline
- .github/workflows/deploy.yml - Deployment workflow
- .github/workflows/labeler.yml - Auto-labeling
- .github/workflows/test-and-build.yml - Testing and building

#### Required Secrets:

```
# Add repository secrets
gh secret set DEPLOY_TOKEN --body "your_deploy_token"
gh secret set DATABASE_URL --body "your_database_url"
gh secret set API_KEY --body "your_api_key"
```

### 4. Webhooks Configuration

Set up webhooks for CI/CD integration:

```
# Example webhook for deployment
gh api repos/romanchaa997/Audityzer/hooks --method POST \
  --field name=web \
  --field active=true \
  --field events='["push","pull_request"]' \
  --field config='{"url":"https://your-deployment-service.com/web-hook","content_type":"json"}'
```

### 5. Repository Rulesets

Configure advanced rulesets:

```
# Create ruleset for main branches
gh api repos/romanchaa997/Audityzer/rulesets --method POST \
  --field name="Main Branch Protection" \
  --field target=branch \
  --field enforcement=active \
  --field conditions='{"ref_name":{"include":["refs/heads/safe-improvements","refs/heads/main"]}}' \
  --field rules='[{"type":"required_status_checks","parameters":{"required_status_checks":[{"context":"ci"}]}}]'
```

## 6. Security Configuration

### Dependabot Configuration:

Create `.github/dependabot.yml` :

```
version: 2
updates:
  - package-ecosystem: "npm"
    directory: "/"
    schedule:
      interval: "weekly"
    open-pull-requests-limit: 10
```

### Code Scanning:

- CodeQL is already configured
- Ensure it runs on all pull requests
- Review and fix identified vulnerabilities

## 7. Codespaces Configuration

Create `.devcontainer/devcontainer.json` :

```
{
  "name": "Audityzer Development",
  "image": "mcr.microsoft.com/devcontainers/javascript-node:18",
  "features": {
    "ghcr.io/devcontainers/features/docker-in-docker:2": {}
  },
  "postCreateCommand": "npm install",
  "customizations": {
    "vscode": {
      "extensions": [
        "ms-vscode.vscode-typescript-next",
        "esbenp.prettier-vscode"
      ]
    }
  }
}
```

## IMMEDIATE ACTIONS REQUIRED

### 1. Fix Security Vulnerabilities

```
# Update dependencies to fix vulnerabilities
npm audit fix --force
npm update
```

### 2. Configure Branch Protection

- Go to GitHub → Settings → Branches
- Add protection rule for `safe-improvements`
- Enable required reviews and status checks

### 3. Set Up Environments

- Go to GitHub → Settings → Environments
- Create: production, staging, development
- Configure deployment protection rules

### 4. Enable GitHub Actions

- Ensure all workflows have proper permissions
- Add required secrets for deployment
- Test workflow execution

## VERIFICATION CHECKLIST

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- ☐ Repository shows latest commits and changes
- ☐ GitHub Actions workflows are running successfully
- ☐ Branch protection rules are active
- ☐ Environments are configured with proper protection
- ☐ Security vulnerabilities are addressed
- ☐ Webhooks are configured for CI/CD
- ☐ Codespaces configuration is working
- ☐ All repository settings are optimized for production

## Quick Links

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- [Repository Rules](https://github.com/romanchaa997/Audityzer/rules) (https://github.com/romanchaa997/Audityzer/rules)
  - [Security Alerts](https://github.com/romanchaa997/Audityzer/security/dependabot) (https://github.com/romanchaa997/Audityzer/security/dependabot)
  - [Actions](https://github.com/romanchaa997/Audityzer/actions) (https://github.com/romanchaa997/Audityzer/actions)
  - [Environments](https://github.com/romanchaa997/Audityzer/settings/environments) (https://github.com/romanchaa997/Audityzer/settings/environments)
  - [Branch Protection](https://github.com/romanchaa997/Audityzer/settings/branches) (https://github.com/romanchaa997/Audityzer/settings/branches)
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*Configuration completed on: 2025-06-11*

*Repository Status: Synced and Ready for Production*