



FM

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Premium Workflow

A practical guide – step by step

Automated Code Review

Automate pull-request reviews: summarize diffs, flag risks and post structured comments with AI assistance.

ENGINEERING

EXPERT

ABOUT 3–4 HOURS SETUP

OVERVIEW

Automated Code Review

Automate pull-request reviews: summarize diffs, flag risks and post structured comments with AI assistance.

CATEGORY	DIFFICULTY	DURATION
Engineering	Expert	About 3–4 hours setup

What you use it for

Engineering teams that want faster, consistent reviews.

Tools in this workflow

OpenAI API · GitHub Alternatives · n8n · Slack

How to implement it

1

Receive pull-request webhooks

Set up webhooks to receive notifications when a pull request is created or updated. These webhooks provide the necessary information for the next steps.

WHAT YOU NEED TO DO

1. Navigate to repository settings on the GitHub alternative.
2. Select 'Webhooks' from the menu.
3. Click 'Add webhook' and enter the payload URL of n8n.
4. Set the Content-Type to 'application/json'.
5. Choose the events that should trigger the webhook, e.g. 'Pull Request'.
6. Save the webhook configuration.

CHECK AT THE END

- ☐ Webhook is visible in repository settings.
- ☐ Webhook URL is correctly configured.
- ☐ Events for pull requests are selected.

RESULT

Webhooks are set up and send notifications on pull request changes.

LINKS

GitHub Webhooks: <https://docs.github.com/de/de/developers/webhooks-and-events/webhooks/creating-webhooks>

2

Fetch and summarize diffs

Retrieve and summarize the differences between the current branch and the target branch to gain a clear overview of changes.

WHAT YOU NEED TO DO

1. Create a new workflow in n8n.
2. Add an HTTP request node to retrieve the diffs via the API.
3. Configure the node with the repository's API URL.
4. Use the OpenAI API to summarize the retrieved diffs.
5. Store the summarized diffs in a variable.

CHECK AT THE END

- ☐ HTTP request node is correctly configured.
- ☐ Summarized diffs are visible in the workflow output.

RESULT

Summarized diffs are available and ready for analysis.

LINKS

GitHub API - Compare Commits: <https://docs.github.com/de/rest/commits/commits#compare-commits>

3

Flag risky changes with AI

Use AI to analyze and highlight potentially risky changes by summarizing diffs.

WHAT YOU NEED TO DO

1. Add another node in n8n to use the OpenAI API.
2. Configure the node to analyze summarized diffs.
3. Define criteria for risky changes in the API request.
4. Process the API response to mark risky changes.
5. Store the analysis results in a variable.

CHECK AT THE END

- ☐ Risk analysis node is correctly configured.
- ☐ Risky changes are highlighted in the workflow output.

RESULT

Risky changes are identified and marked.

LINKS

OpenAI API: <https://beta.openai.com/docs/api-reference/introduction>

4

Post review comments

Create structured comments on identified changes and post them in the pull request to give developers feedback.

WHAT YOU NEED TO DO

1. Add a node in n8n to post comments via API.
2. Configure the node with the repository's API URL.
3. Formulate comments based on risk analysis.
4. Use the API to post comments in the pull request.
5. Verify that comments are correctly displayed in the pull request.

CHECK AT THE END

- ☐ Node for posting comments is correctly configured.
- ☐ Comments are visible in the pull request.

RESULT

Structured comments are posted in the pull request.

LINKS

GitHub API - Create a Review Comment: <https://docs.github.com/de/rest/pulls/reviews#submit-a-review-for-a-pull-request>

5

Notify the team

Notify the team about the results of automated code review by sending a message to Slack.

WHAT YOU NEED TO DO

1. Fork a Slack node in n8n.
2. Configure the node with the Slack webhook URL.
3. Create a message with the code review results.
4. Send the message to the corresponding Slack channel.
5. Verify that the message has arrived in the Slack channel.

CHECK AT THE END

- ☐ The Slack node is correctly configured.
- ☐ The message is visible in the Slack channel.

RESULT

The team is informed about the code review results.

LINKS

Slack API - Chat Post Message: <https://api.slack.com/methods/chat.postMessage>

Recommended Tools & Resources

All tools in this workflow with their official website.

OpenAI API

<https://platform.openai.com/?ref=flowmatrix>

Official URL

GitHub Alternatives

<https://github.com/>

n8n

<https://n8n.io/?ref=flowmatrix>

Official URL

Slack

<https://slack.com/>

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