SonarQube Pull-request Decoration (Gitlab Integration)

이 문서는 SonarQube Pull-request Decoration (Gitlab Integration) 가이드를 공유하기 위해 작성되었다.

도구명	Sonarqube Enterprise, Gitlab ee
버전	Sonarqube: 8.9.8
	Gitlab: 15.0.0
비고	

- ALM Integrations
 - Gitlab Access Token
 - Sonarqube 설정하기
- Project 에 반영하기
 - Sonarqube Project Setting
 Gitlab-ci.yml 파일
 - Sonarqube에서 Merge Request 확인
 - Gitlab에서 Sonarqube Merge Request 결과 확인
 - Sonarqube-Master Issue
- Gitlab Default Branch Name 변경 방법
- 참조

ALM Integrations

Gitlab Access Token

Gitlab 로그인 후 상단의 Profile → Edit Profile → Access Token 선택

■ Token Name , 만료 일자, api 선택 후 저장



■ 저장 후 Access Token값 복사

tLab ≡ ^{Menu}		Q Search GitLab
5	User Settings > Access Tokens	
	Your new personal access token has been c	reated. X
ins	Q Search settings	
	Personal Access Tokens	Your new personal access token
kens	You can generate a personal access token for	dPmzvUS6wf-QXChXZMC6
ord	each application you use that needs access to the GitLab API.	Make sure you save it - you won't be able to access it again.
Uffications H Keys G Keys efferences tive Sessions thentication log agge Quotas	You can also use personal access tokens to authenticate against Git over HTP. They are the only accepted password when you have Two- Factor Authentication (2FA) enabled.	Add a personal access token Enter the name of your application, and we'll return a unique personal access token. Token name
		Select scopes Scopes set the permission levels granted to the token. Learn more.
		 api api Grants complete read/write access to the API, including all groups and projects, the container registry, and the package registry. read, api Grants read access to the API, including all groups and projects, the container registry, and the package registry. read, user Grant sread-only access to the authenticated user's profile through the /user API endpoint, which includes username, public email, and full name. Also grants access to read-only API endpoints under /users.
		c read_repository

Sonarqube 설정하기

• Administration → Configuration → ALM Integrations → GitLab → Create configuration 선택 (Developer 버전일 경우: DevOps Platform Integrations)

sonar qube Projects	Portfolios Issues Rules Quality Profiles Qu	uality G: 1 Administration	Q Search for projects	A
Administration 2 Configuration Security	Projects - System Marketplace Support			
General Settings Edit global settings for this So	onarQube instance.			
3 ALM Integrations	O GitHub 💽 Bitbucket 😋 Azur	re DevC 4 🖌 GitLab		
Analysis Scope External Analyzers	Create your first GitLab configuration to start analyzin	ng your repositories on SonarQube.		
General	Create configuration			
Housekeeping				
JaCoCo	GitLab Authentication	connercere converPecel IDI ¹ must be set to the public I IDI		
Languages	in order to enable Oncab addrenacadon, the property	annai.core.aerverbaaeonte muai de aer to are public onte		
New Code	Enabled			
Portfolios	Enable Gittlab users to login. Value is ignored if URL, Application ID, and Secret are not set. Key: sonar.auth.gitlab.enabled			
SAST Engine		Reset Default: False		
SCM				
Security	GitLab URL			
Technical Debt	Key: sonar.auth.gitlab.url	http://10.0.1.150:8000		
		Reset Default: https://gitlab.com		

■ 해당하는 값들 입력 후 저장 Configuration Name: Gitlab API URL: http://gitlab주소/api/v4 Personal Access Token: Gitlab Access Token 값

sonarqube Projects P	ortfolios Issues Rules Quality Profiles Qua	ality Gates Administration	0 Q S	Search for projects	
Administration Configuration - Security -	Projects - System Marketplace Support				
General Settings Edit global settings for this So	narQube Create a configuration				
ALM Integrations Analysis Scope	ALM Integra Configuration name * ALM Inte Interface Citil ab API UPI * O	0	Accounts that will be used to decorate Merge Requests need comment permissions on projects. The personal key needs the API scope permission. Learn More	lests directly in your ALM provider's	
	http://10.0.1.150.8000/api/v4 Personal Access token * dPmzvUS6wf-QXChXZMC6				
	Creat				
	GitL		Save configuration Cancel		
	In order to enable GitLab authentication, the property 's	'sonar.core.serverBaseURL' mus			
	Enable Gallab users to login. Value is ignored if URL, Application ID, and Secret are not set. Key: sonar.auth.gitlab.enabled	Reset Default: False			
	GHLab URL URL to access GHLab. Key: sonar auth gHab url	http://10.0.1.150.8000 Reset Default: https://gitial			

완료 화면

sonarqube Projects F	Portfolios Issues Rules Quality Profiles Quality Gates Administration	ſ
Administration	Projects - System Marketplace Support	
General Settings Edit global settings for this Son	arQube instance.	l
ALM Integrations	Integration configurations	
Analysis Scope	ALM integrations allow SonarOube to interact with your ALM. This enables things like authentication, or providing analysis details and a Quality Gate to your Pull Requests directly in your ALM provider's interface.	
External Analyzers	O GilHub Isibucket (Azure DevOps ↓ Gill.ab	
General	Create configuration	
Housekeeping		
JaCoCo	GITLABTEST / Edit Detete	ł
Languages	Merge Request Decoration Import repositories from your ALM C Configuration valid	
New Code		
Portfolios	Check configuration	
SAST Engine		
SCM		
Security	GitLab Authentication	
Technical Debt	In order to enable GitLab authentication, the property 'sonar core serverBaseURL' must be set to the public URL	
	Enable Gillab users to login. Value is ignored if URL. Application (D, and Secret are not set. Key: sonar suth gittab enabled Reset: Default: Falue	

Project 에 반영하기

Sonarqube Project Setting

■ Gitlab: 반영하고자 하는 Project 선택 후 Project ID 값 복사

itLab ≡ Menu			• •	Q Search GitLab	<u>ມ</u> ເ	3 @ ° ∼	🤫 ×
S sonarqubeGradle	A You can't push or pull repositories using SSH until you	add an SSH key to your profile.					×
Project information	Add SSH key Don't show again						
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		gradle.properties	1	1 month ago			
	•	🗬 gradlew	1	1 month ago			
≪ Collapse sidebar	6	∑ gradlew.bat	1	1 month ago			

■ Sonarqube:Project 선택 → Project Settings → Pull Request Decoration: Gitlab 선택 후 해당 하는 값들 입력 후 저장

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ť	sonarqube-scanner-	gradle ☆ 🗜 master 🕶				June 21, 2022, 2	2:31 PM Version 1.0 🏠	
(Overview Issues Secur	ity Hotspots Security Reports Measures	Code Activity		1	Project Settings -	Project Information	
E	General Settings Edit project settings.							
	Analysis Scope	Pull Request Decoration						
	External Analyzers	Enable Pull Request Decoration for this project.						
	General	Configuration name *						
	Housekeeping	GITLABTEST	Ψ					
	JaCoCo	35						
	Languages	Enable mono repository support @						
2	Pull Request Decoration	Reset 📀 Savedi						
	SAST Engine							
	SCM							
			Enterprise Edition - Version 8	SonarQube™ technology is powered by Sonar 9.9.8 (build 54436) - LGPL v3 - Community - Do	Source SA cumentation - Plugins - V	Veb API - About		

Gitlab-ci.yml 파일

Merge Request 전 gitlab-ci.yml 파일에 해당 스테이지에 구문 추가



- branch_name

🕦 Sonarqube 8.3 이상에서는 gitlab-ci.yml 파일에 only이나 Rule구문을 넣으면 Pull Request로 간주

Sonarqube 8.3 이전버전에는

- sonar.pullrequest.base
- sonar pullrequest key sonar pullrequest branch
- 해당 부분 추가 필요(참조-Sonarqube Docs-Pull Request Analysis)

Sonarqube에서 Merge Request 확인

■ Project 선택 Project Settings→ Branches & Pull Requests → Pull Requests

☐ Sonarqube-scanner-gradle ☆ ▷ master • June 21, 2022, 2.31 PM Version 10 ☆ Overview Issues Security Hotspots Measures Code Activity Image: Code
Overview Issues Security Hotopots Security Reports Measures Code Activity Project Settings - Project Settings - Project Settings - Project Information
Branches & Puil Requests Branches & Puil Requests Branches and Puil Requests P Branch P Branch P Branch P Duf Requests P Duf R
Pull Request Status Links Actions
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StartQube ^{rre} technology is powered by Start@Guree SA

Gitlab에서 Sonarqube Merge Request 결과 확인

■ Sonarqube Project에서 해당 Pull Request 선택 후 'See the PR' 선택

sc	onarqube Projects Portfolios Issues Rules (Quality Profiles Quality Gates Administration	Q Search for projects	A
E	sonarqube-scanner-gradle 🟠 🏌 27 - feature/asd	for merge into master from feature/asd	See th	lune 21, 2022, 2:49 PM
<u>.</u>	Verview issue (2, Search for parabellis or Paul requests.)- master (MAIN BRANCH Pull Requests 1) 25 - feature/asd 1) 27 - feature/asd 1) 27 - feature/asd	Passel Passel Passel		
	🏌 feature/asd	Failed	Reliability	
		0 & New Vulnerabilities	Security 🔥	
		0 • New Security Hotspots	Security Review 🔥	
		O ON New Code Smells	Maintainability 🔥	
		O 0.0% Coverage on 10 New Lines to cover	0.0% Estimated after merge	
		O 0.0% Duplications on 10 New Lines	0.0% Estimated after merge	
	Enterpris	SonarClube [™] technology is powered by SonarSource SA s Edition - Version 8.9.8 (build 54436) - LGPL v3 - Community - Documentation - Plugins - We	eb API - About	

■ Gitlab 페이지가 열리면서 Comment에서 Sonarqube 결과값을 확인 할 수 있다

itLab ≡ Menu	CQ. Search GitLab	📝 D n V 🖸 🎯	~
S sonarqubeGradle	Overview 1 Commits 3 Pipelines 1 Changes 1	Add a to do	>
Project information	 tren Engliste opplicatelis 		
Repository		Assignee E	Edit
D Issues 0	So Merged by 🔅 Administrator 49 minutes ago Revert Cherry-pick Delete source branch		
Merge requests 0	The changes were merged into master with 24f9d8ab 🛱	0 Reviewers E	Edit
🤣 CI/CD	▲ 0 ● 0 ③ Oldest first → Show all activity →	None	
		Labels E	Edit
Deployments	Administrator @root assigned to @root 1 minute ago	None	
Packages & Registries	Administrator @root enabled an automatic merge when the pipeline for fd15625d succeeds 1 minute ago	Milestone	Edit
lnfrastructure		None	
👜 Monitor	Administrator @root - 1 minute ago Querer 🛛 🖓 🖵 🖉 🚦	Time tracking	୭
🔟 Analytics	SonarQube Code Analysis	No estimate or time spent	0
Q Wiki			
X Snippets	Quality Gate passed	Lock merge request E	Edit
Settings	Passod		
	Additional information	Notifications	\oslash
	The following metrics might not affect the Quality Gate status but improving them will improve your project code quality and security.	1 participant	
	0 Issues fr € 0 Bugs fr € 0 Vulnerabilities Ø 0 0 Security Hotspots Ø 0 0 Cade Smells	Reference: gitlab-instance-2d9bba Source branch: featune/asd	හ හ
	Coverage and Duplications 0.0% Coverage (0.0% Estimated after merge) 0.0% Duplication (0.0% Estimated after merge)		
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Sonarqube-Master Issue

- Master에서 가지고 있던 기존 Issue를 Branch에서 Issue Status 변경 후 Merge Request 시 해당 Issue Status 반영되지 않음
- Branch에서 신규로 생성된 Issue를 Issue Status 변경 후 Merge Request 시 해당 Issue Status 반영됨

Gitlab Default Branch Name 변경 방법

🦊 GitLab	E Menu	🛛 🗸 🔍 Search GitLab	/ D n ~ C @•~ 🛞 ~
Admin Area Admin Area Overview Analytics	Projects > So Groups > Milestones	ter for an account. to register for accounts on GitLab instances that you intend to be used by anyone. Allowing anyone to register makes GitLab instances more vulnerable. cnowledge	×
Monitoring Messages Messages System Hooks Start Applications Abuse Report Subscription Subscription Americal Autors Geo Monto Content	 Snippets Activity Environments Operations Admin 	Admin Area > Repository Q. Search settings 4 Collaps Set the initial name and protections for the default branch of new repositories created in the instance. Initial default branch name main	e]
2 Labels 3 Settings General Advanced Sear 1 Integrations Repository Templates CI/CD Reporting	dt	If not specified at the group or instance level, the default is makin. Does not affect existing repositories. Initial default branch protection Not protected Both developers and maintainers can push new commits, force push, or delete the branch. Protected against pushes Developers cannot push new commits, but are allowed to accept merge requests to the branch. Maintainers can push to the branch. Partially protected Both developers and maintainers can push new commits, but cannot force push. Fully protected Developers cannot push new commits. but maintainers can. No one can force push. Affects all new and easting group.	
Metrics and pro Service usage of Network Appearance Preferences & Collapse sideba	sfiling	Swet changes Expand Repository mirroring Expand Configure repository mirroring. Learn more. Expand	1

$\mathsf{Meun} \to \mathsf{Admin} \to \mathsf{Settings} \to \mathsf{Repository} \to \mathsf{Default \ branch} \to \mathsf{Expand} \ \texttt{J} \texttt{A}^{:} \mathsf{main} \ \texttt{int} \ \texttt{F}^{:} \texttt{B}^{:}$

참조

공식문서

- Sonarqube Docs-Gitlab Integration
 Gitlab Docs-Merge Request
 Sonarqube Docs-Pull Request Analysis