

Continuous Testing

It's all about feedback

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Itzik Gan-Baruch is a veteran of creating creative technical content which bridges gaps between business and technology, and helps non-technical users understand the value of technology. Creates software demo systems, YouTube videos, delivers demos to analysts, and speaks at events. He is a senior technical marketing manager at GitLab, with over 20 years of experience in the IT industry, tech-savvy, and father of three.



Orit Golowinski

Senior Product Manager

[GO_Orit](#)

My name is Orit Golowinski. I am currently the senior Product Manager of Progressive Delivery at GitLab and also an ambassador at the DevOps institute. Previously, I was the director R&D infrastructure at Cellebrite. Part of this position was to lead the DevOps department where I found my passion for CI/CD. In previous roles, I helped transition R&D from waterfall to Agile. Previous Roles that I held include Director of QA and Director of product management in numerous companies. I am also a mother of 3 girls and a certified pastry chef.





Agenda

- Continuous Testing
- Challenges for testing
- Visualizing Test Coverage
- Review Apps
- Blue/Green Deployments
- Canary Release
- Feature Flags
- Demo – Continuous Testing with GitLab

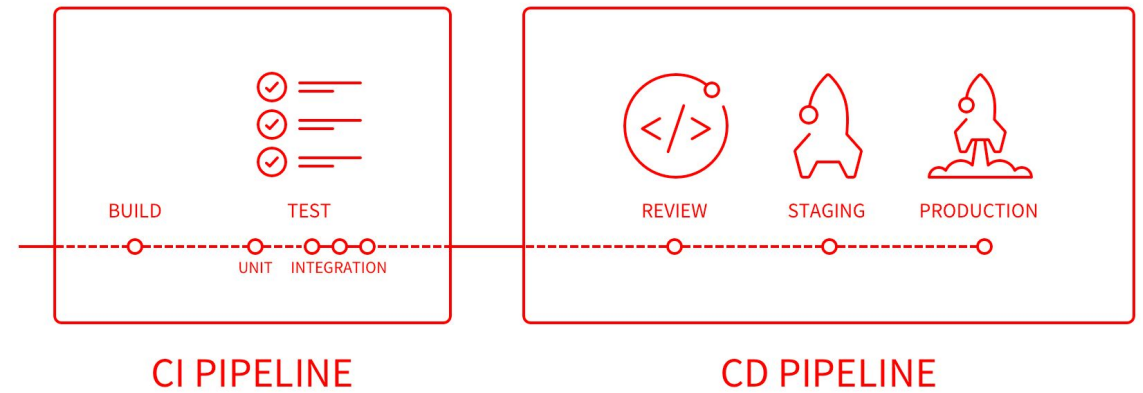
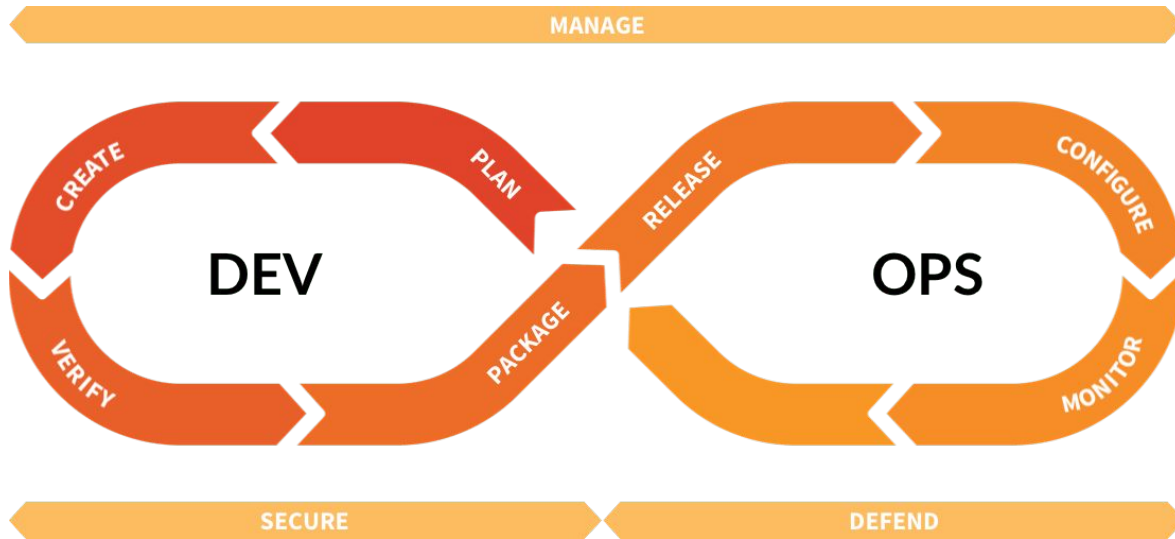




“We all need
people who will
give us feedback.
That’s how we
improve.”
– **Bill Gates**



Continuous Testing



Challenges for Testing

**Inability to
“Shift Left”**

**Slow
Execution
Time**

**High
Maintenance**

**Test
Environment
Instability**




Open Opened 4 weeks ago by  Grant Young Owner


Edit Mark as draft


Add test file

Overview **0** Commits **1** Pipelines **1** Changes **2**


test mr


 Request to merge `test` into `master` Open in Web IDE Check out branch Download


 Pipeline #192925730 passed for `cb105bec` on `test` Checkmark

 Approve Approval is optional ?

[View eligible approvers](#)

 Browser performance test metrics: 7 degraded, 4 same, 3 improved Expand

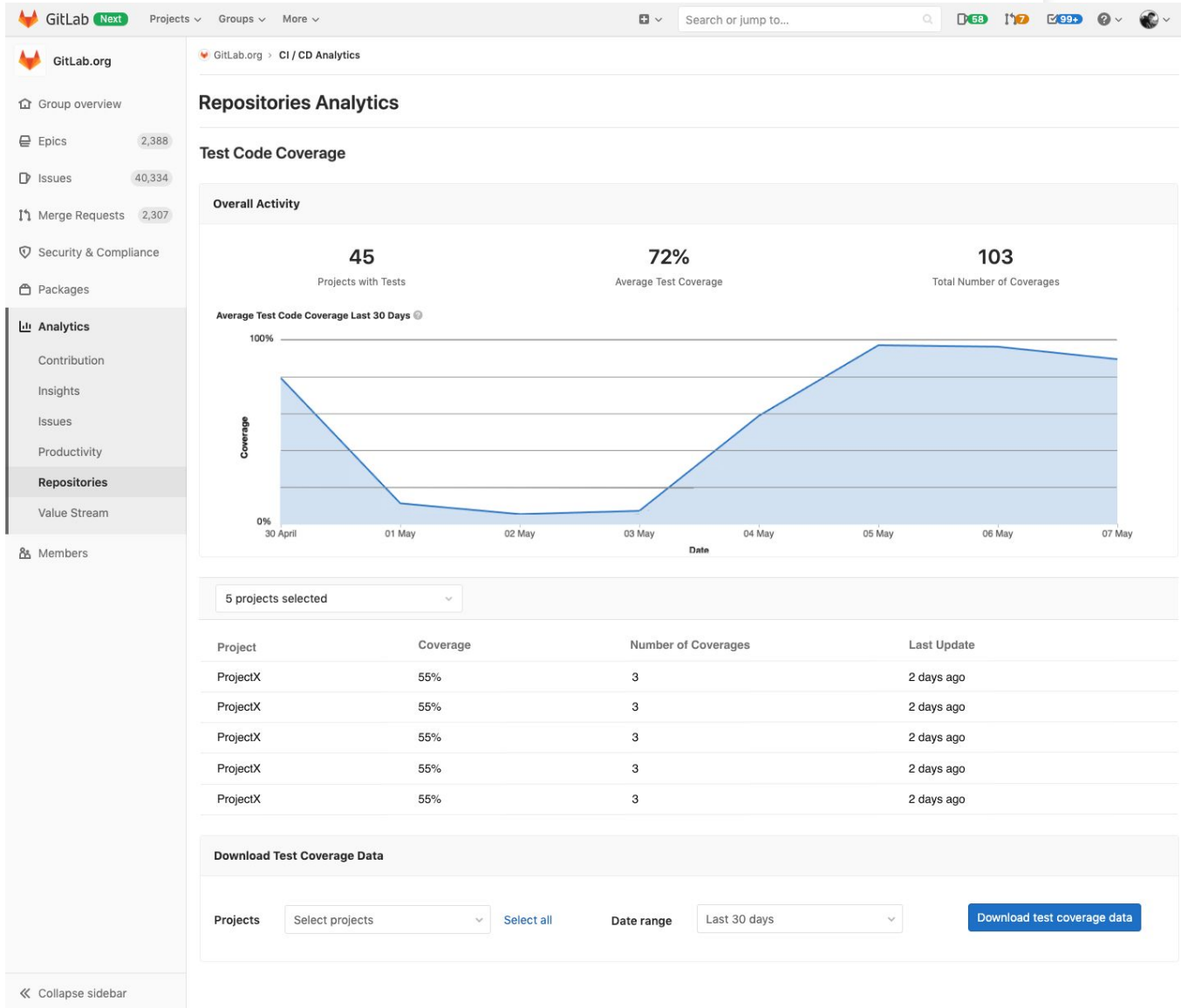
 Load performance test metrics: 1 same, 3 improved Expand

 Merge Ready to be merged automatically. Ask someone with write access to this repository to merge this request

Thumbs up 0 Thumbs down 0 Smiley face Oldest first Show all activity

Feedback for every code change





Visualizing Test Coverage

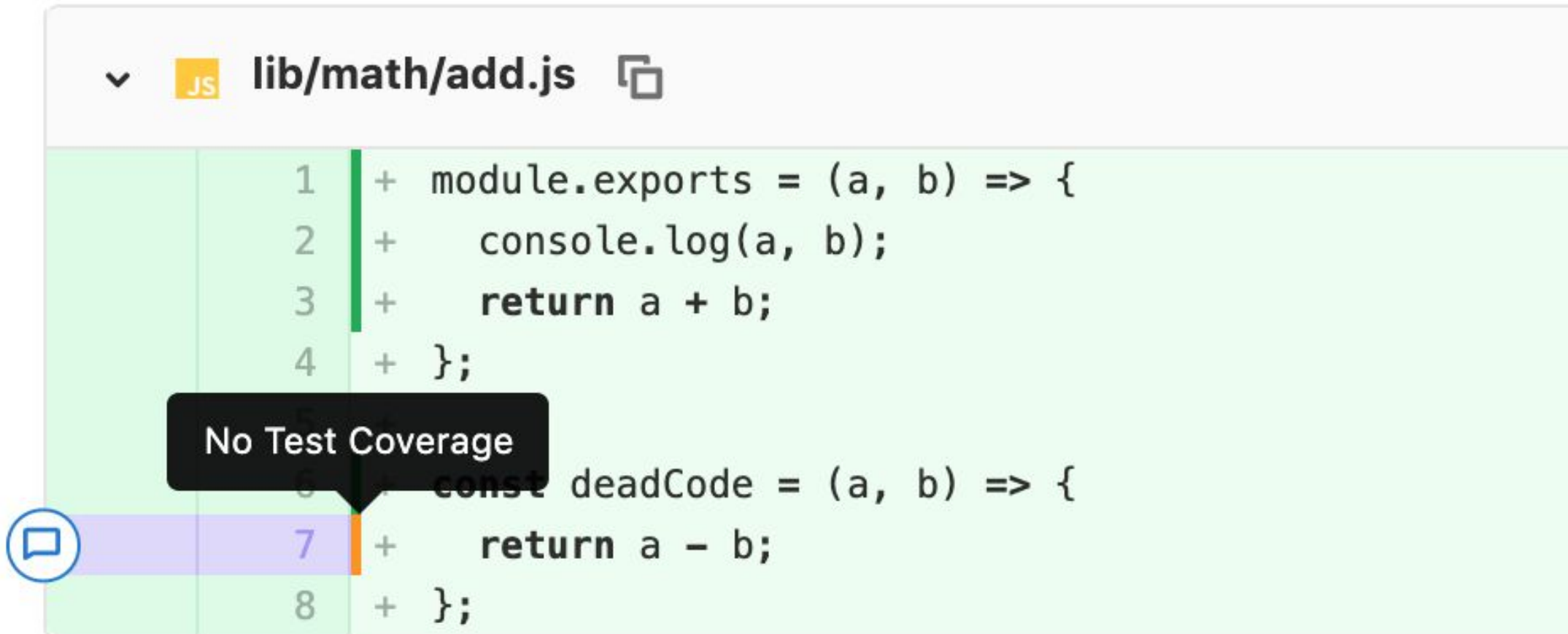


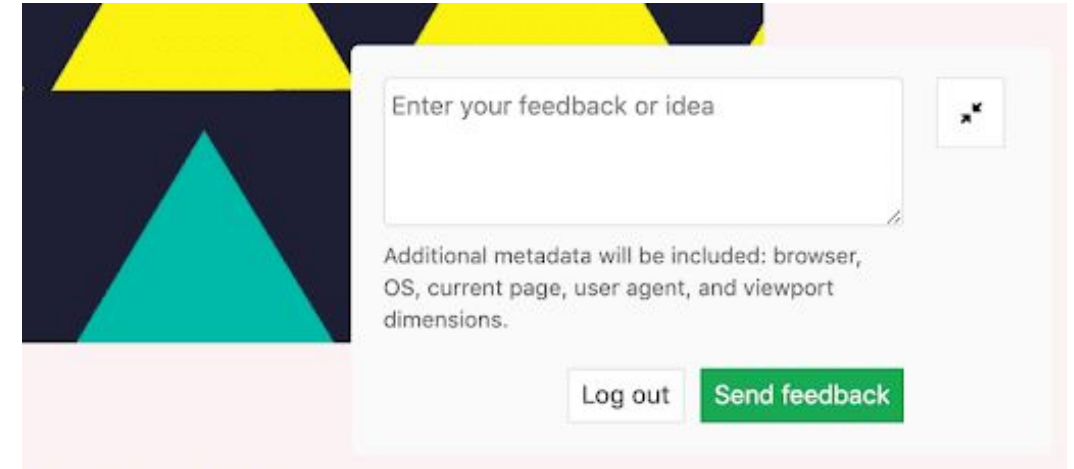
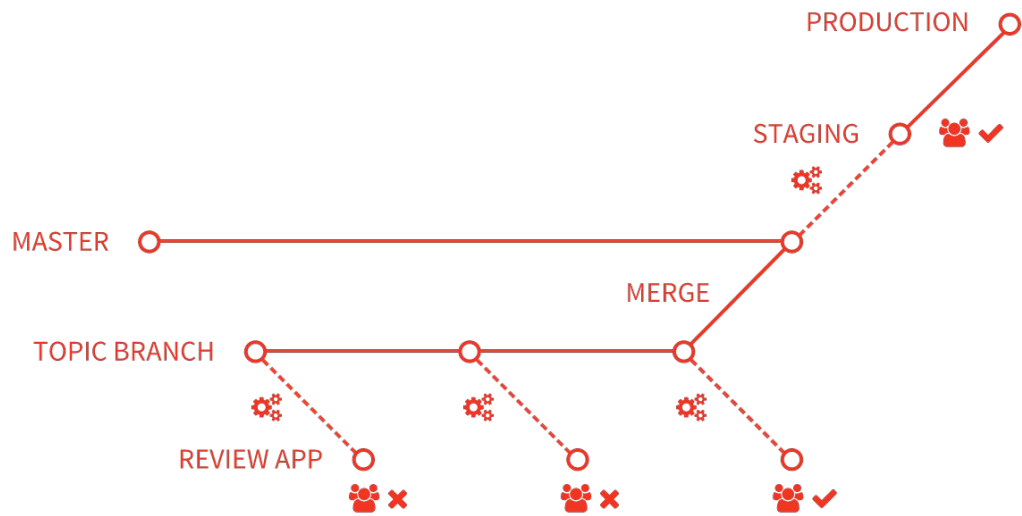
View code that is not covered directly from the code

```
lib/math/add.js
```

```
1 + module.exports = (a, b) => {  
2 +   console.log(a, b);  
3 +   return a + b;  
4 + };  
5 +  
6 + const deadCode = (a, b) => {  
7 +   return a - b;  
8 + };
```

No Test Coverage

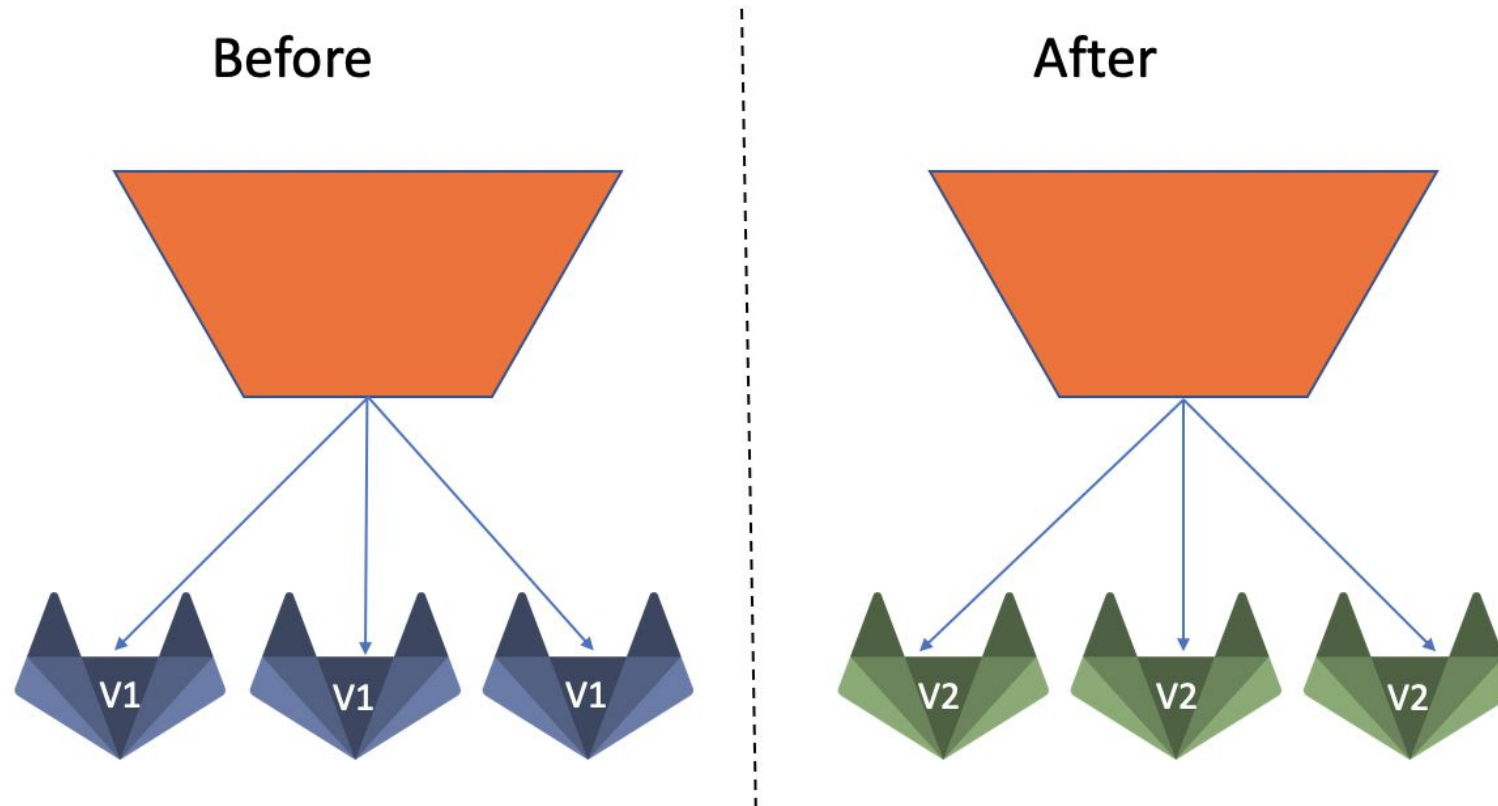




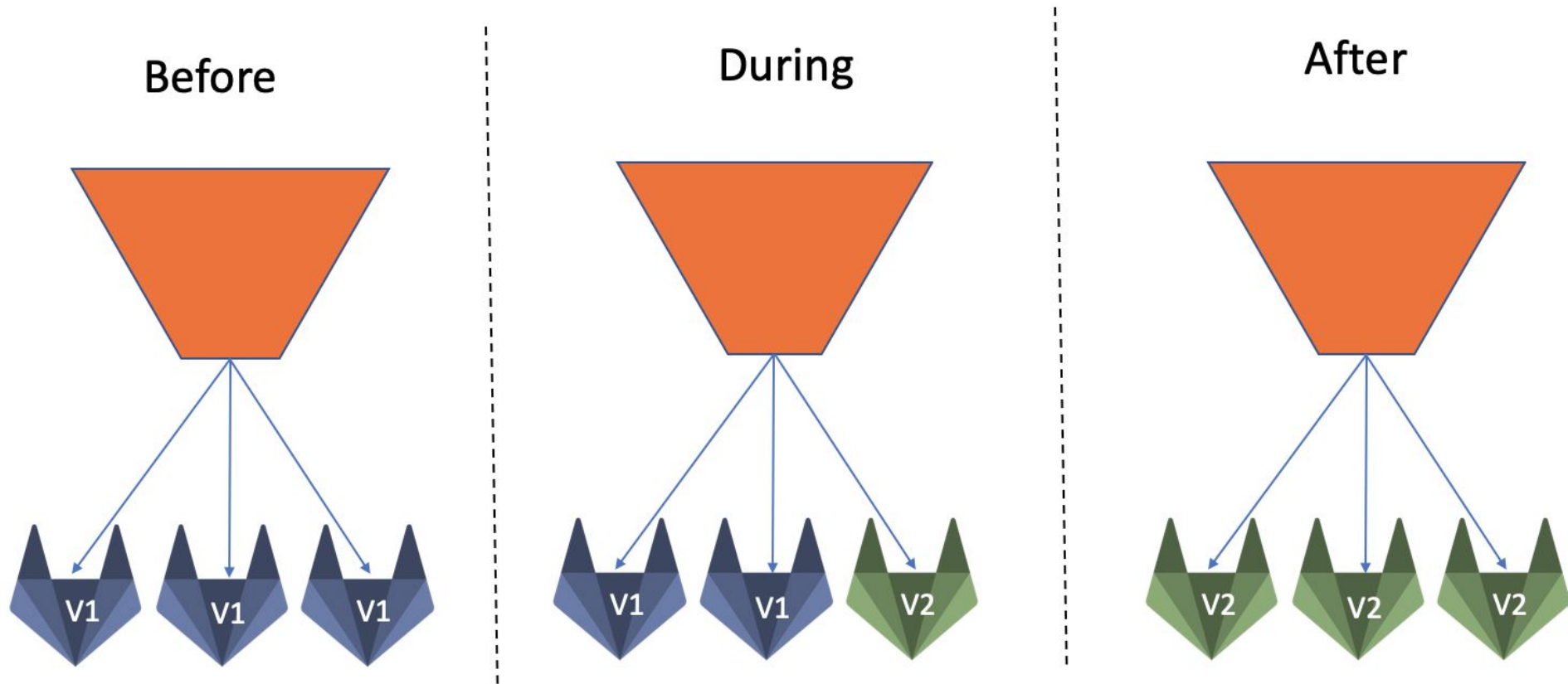
Review Apps






















Blue/Green Deployments



Canary Release

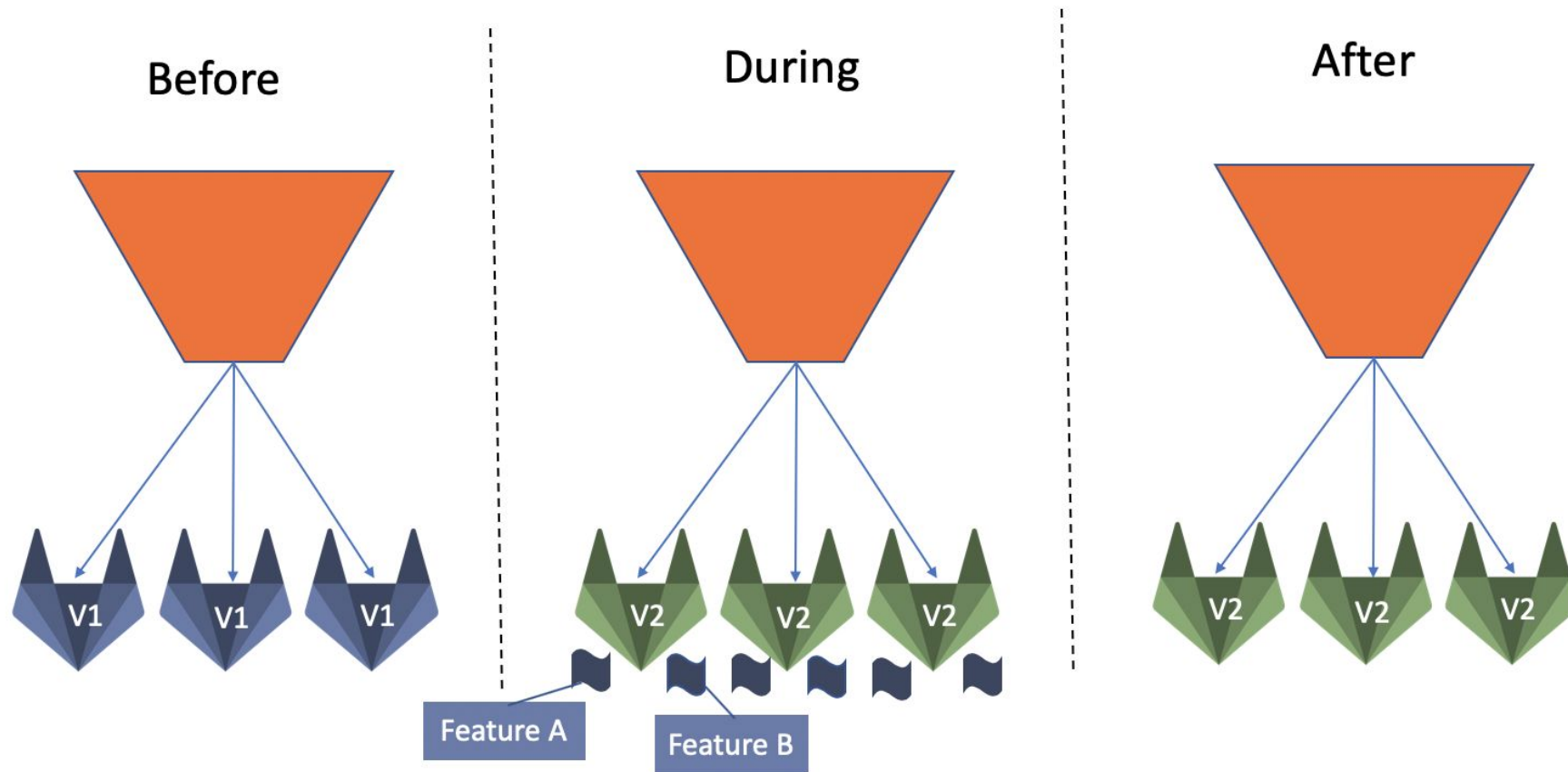


Canary Releases in GitLab













Environment	Last Deployment	Build	Commit	
production	#1982 by  tanuki-234ae6f Finished	production (#29838928)	master -> 872ba22c Update profiles	Today  
59% Complete				Roll back Abort
staging	#1980 by 	staging (#3223827)	master -> 586b44ec Update MR2 link	1 day ago   
100% Complete				Roll back Abort
review 98				
add-information	#1829 by 	review (#29830918)	master -> 323eb288 Edit information on tabs	1 day ago    
hello-world	#1823 by 	review (#19280928)	master -> 277ab281 Work on new environment	3 days ago    



Feature Flags



Feature Flags in GitLab

ID	Status	Feature Flag	Environment Specs	
^14	<input type="checkbox"/>	demo demo for % rollout ff	<ul style="list-style-type: none">All Users: All EnvironmentsPercent of users - 50%: testingUser IDs - 4 users: testingPercent of users - 15%: productionUser IDs - 4 users: production	 
^20	<input checked="" type="checkbox"/>	flag_a feature a	<ul style="list-style-type: none">Percent of users - 50%: productionUser IDs - 3 users: devUser List - my_user_list: testing	 
^2	<input checked="" type="checkbox"/>	new_ff ⓘ	<ul style="list-style-type: none">* (All environments)testing	 
^13	<input checked="" type="checkbox"/>	new_flag New flag for demo purpose	<ul style="list-style-type: none">User List - my_user_list: testing	 
^5	<input checked="" type="checkbox"/>	user_id_flag ⓘ testing userid	<ul style="list-style-type: none">* (All environments)	 
^12	<input checked="" type="checkbox"/>	user_id_v2_ff Feature Flag based on userID - new ...	<ul style="list-style-type: none">User IDs - 5 users: staging	 



THANK YOU!

Meet us in the Network
Chat Lounge for questions

