



CERCETARE

CI / CD

pipeline cu Jenkins

Student:

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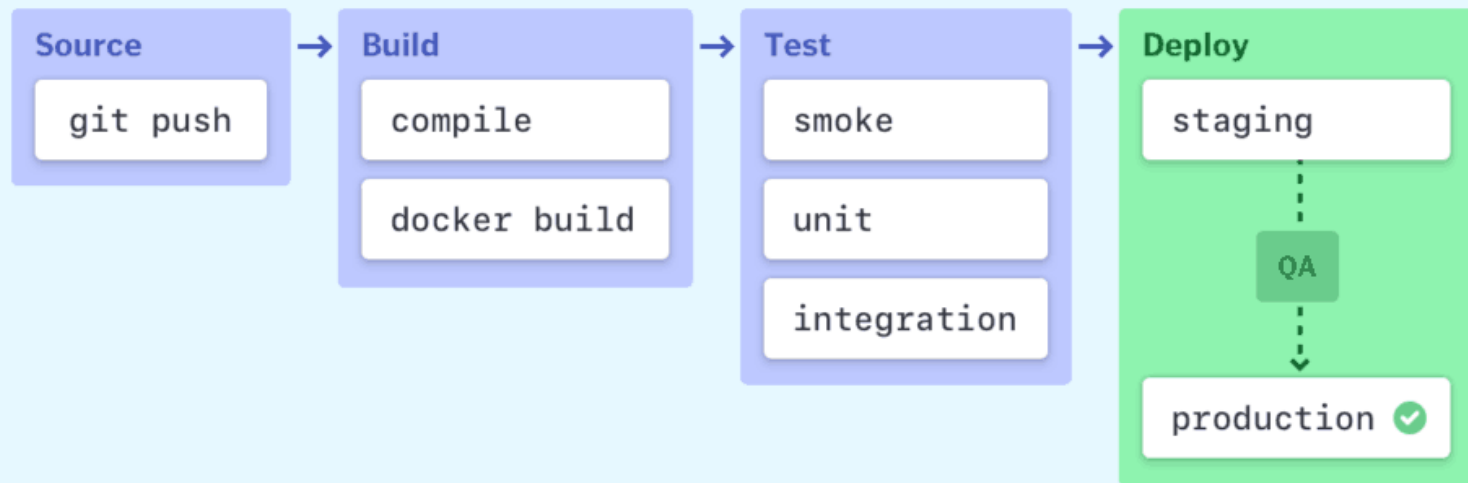
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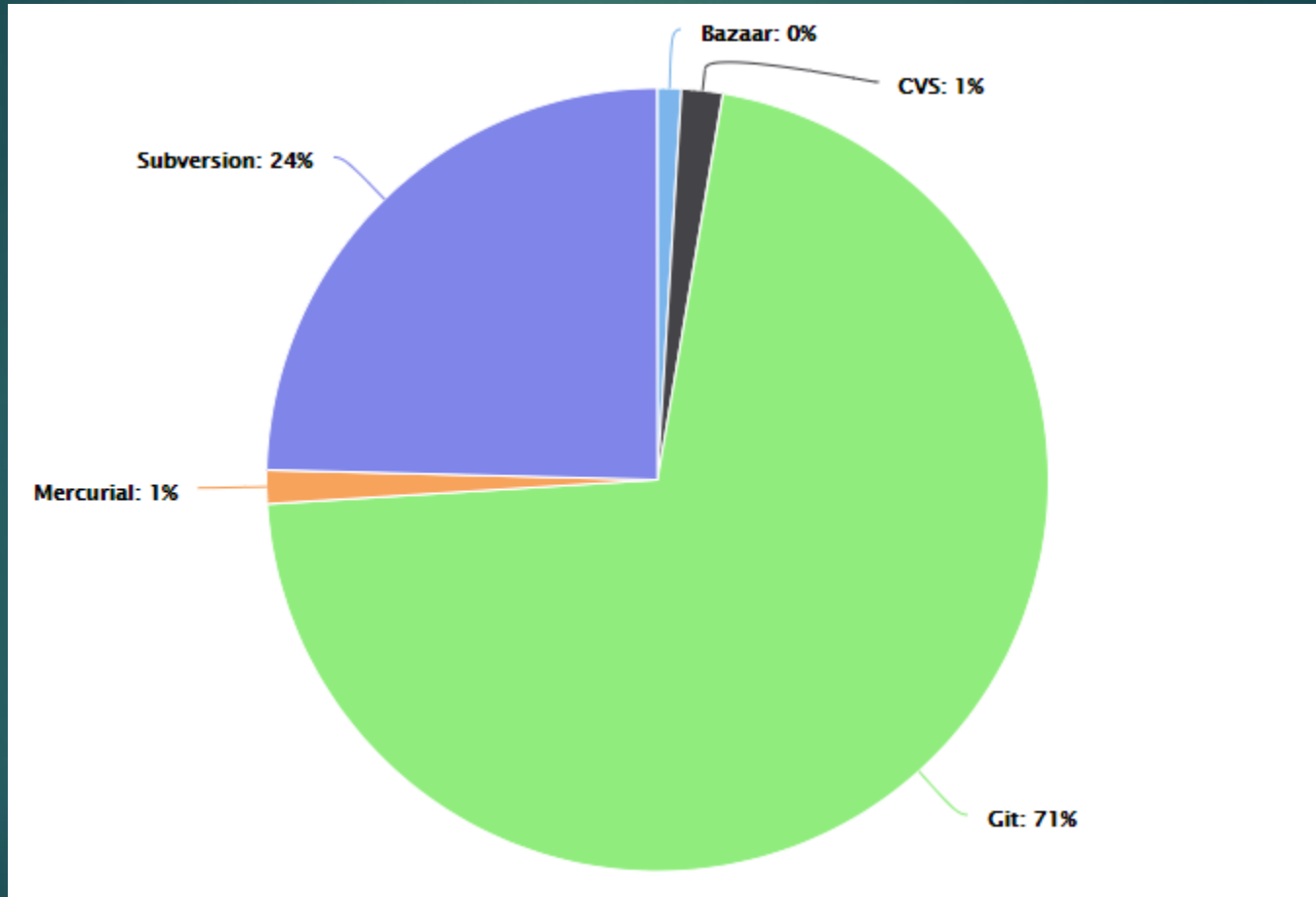
Context

- ▶ Ce inseamna CI/CD?
 - ▶ CI – Continuous Integration
 - ▶ Fiecare commit declanseaza un build de aplicatie + teste
 - ▶ CD – Continuous Delivery
 - ▶ Schimbarile ajung in productie cu interventie manuala (apasare de buton)
 - ▶ CD – Continuous Deployment
 - ▶ Schimbarile ajung in productie complet automat

Pipeline pentru release de software



Source Code Management Technologies



Source Code Management Tools

- ▶ Datorita faptului ca in 2019, Git a fost folosit in peste 70% de proiecte, voi folosi Git.
- ▶ Comparatie intre cele mai cunoscute tool-uri care suporta Git

Nume	OpenSource?	Suport proiecte OpenSource	Cloud	On Prem	Pricing Cloud	Pricing OnPrem
GitHub	Nu	Da	Da	Da	Free	Platit
GitLab	Da	Da	Da	Da	Free (basic)	Free (basic)
Bitbucket	Nu	Da	Da	Da	Free (<5 useri)	Platit

CI/CD Tools

CONTINUOUS INTEGRATION TOOLS COMPARISON

	Jenkins	TeamCity	Bamboo	Travis	Circle	Codeship
Pricing	Free	\$299-\$1999	\$10-\$800	\$69-\$489	\$50-\$3150	\$75-\$1500
Operating system	Windows, Linux, macOS, any Unix-like OS	Windows, Linux, macOS, Solaris, FreeBSD, and more	Windows, Linux, macOS, Solaris	Linux, macOS	Linux, iOS, Android	Windows, macOS
Hosting	On premise/ cloud	On premise	On premise/ Bitbucket as cloud	On premise/ cloud	Cloud	Cloud
Container support	✓	✓	✓	✓	✓	Yes for Pro version
Plugins	*****	*****	**	*****	***	*****
Docs and support	Adequate	Good	Good	Poor	Good	Poor
Learning curve and usability	Easy	Medium	Medium	Easy	Easy	Easy
Use case	For big projects	For enterprise needs	For Atlassian integrations	For small projects and startups	For fast development and high budget	For any project

Semstrele Urmatoare

- ▶ Semestrul 2: Testarea si alegerea mediului cel mai convenabil pentru a implementa acest system: masini virtuale vs dockere, laptop vs cloud.
- ▶ Semestrul 3: Definitivarea sistemului de pipeline si a unei aplicatii care sa treaca prin toti pasii
- ▶ Semestrul 4: Unificarea muncii anterioare, alaturi de documentarea, testarea si utilizarea sistemului de pipeline final