

# Survey on software architecture diagrams automatically generated from terraform files

This survey is part of a study by the Faculty of Engineering of the University of Porto (Portugal) on a novel tool that generates software architecture from terraform files.

Your answers are anonymous. This study has no commercial goal, and the conclusions will be made public, ensuring accessibility for all interested. At the end of the questionnaire, you can choose to receive the results first-hand.

If you have questions, feel free to contact: [infrastructuregenie@gmail.com](mailto:infrastructuregenie@gmail.com).

**Estimated Time to Complete:** 5 minutes

\* Indicates required question

## Profile

The questions in this section provide us context that may help us better understand your answers in general. No personally identifiable information is collected.

### 1. Educational attainment \*

*Mark only one oval.*

- ☐ Primary/elementary school
- ☐ Secondary school (e.g. American high school, German Realschule or Gymnasium, etc.)
- ☐ Some college/university study without earning a degree
- ☐ Bachelor's degree (B.A., B.S., B.Eng., etc.)
- ☐ Master's degree (M.A., M.S., M.Eng., MBA, etc.)
- ☐ Doctoral degree (Ph.D., Ed.D., etc.)
- ☐ Other: \_\_\_\_\_

### 2. Area of study (e.g. Computer Science, Civil engineering)

\_\_\_\_\_

### 3. Professional Experience in Software Development \*

*Mark only one oval.*

- ☐ Less than 1 year
- ☐ 1 to 4 years
- ☐ 5 to 9 years
- ☐ 10 to 14 years
- ☐ 15 or more

### 4. Current role

\_\_\_\_\_

### 5. Country \*

6. Rate your level of agreement with the following statements. \*

Mark only one oval per row.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I have experience with tools that allow the creation of diagrams from terraform code (e.g. terraform graph, pluralith, rover, inframap, others).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with the Unified Modeling Language (UML).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with UML deployment diagrams.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with Terraform.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with the Terraform code in this repository	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Submitted architecture diagram extracted from terraform code usefulness

Rate your level of agreement with the following statements.

7. I think that the submitted architecture diagram is... \*

Mark only one oval per row.

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
complete.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
precise.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
easy to understand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
easy to read.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. How would you improve this diagram? (you can mention missing elements, different naming, representation, etc)

Compare architecture diagram extracted from terraform code with existing diagrams

9. Before receiving our diagram, did the documentation of your projects include any other architectural diagram(s)? \*

Mark only one oval.

☐ YesSkip to question 10

☐ NoSkip to question 12

☐ I am not sureSkip to question 12

Skip to question 12

Taking the existing architectural diagram(s) as reference, please answer the following questions

10. Rate your level of agreement with the following statements. \*

I think the new architecture diagram...

Mark only one oval per row.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
is more precise than the existing diagrams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is more complete than the existing diagrams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is easier to understand than the existing diagrams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
is easier to read than the existing diagrams	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Why?

Intention to use generated diagram

12. Rate your level of agreement with the following statement. \*

I am considering to include the generated architecture diagram to my project.

*Mark only one oval.*

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

#### Improvements and Comments

13. Leave us your comments. What did you think of the submitted architecture diagram, how did you perceive its usefulness, and what improvements would you suggest?

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14. If you desire to receive the results of the survey, please provide your email address.

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