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</Hi, my name is Liz! [she/her/hers]

- Film student → Marketer → Engineer → Developer advocate
- I love pizza, plants, pugs, and Python
- I’m currently open to new job opportunities!

>>>

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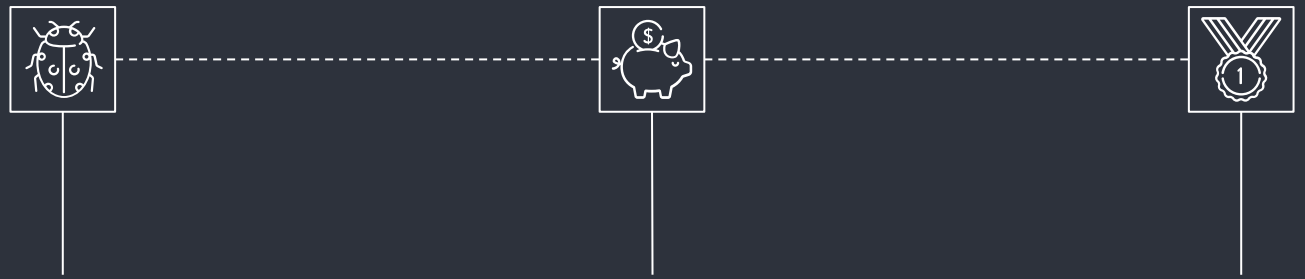
</What is testing?

Software testing is the process of **evaluating** and **verifying** that a software product or application **does what it is supposed to do**.[1]

[1] “What is software testing?” https://www.ibm.com/topics/software-testing

</The benefits of testing



Prevent bugs

Discover breaking changes before the user does

Reduce development costs

Devote fewer resources to incident response

Improve performance

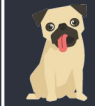
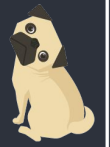
Uncover bottlenecks and scaling issues

</The benefits of testing

Write ***better*** code!

- Detect code smells
- Indicate when it may be time to refactor or reconsider system design

</Different kinds of testing

	GOOD	NEUTRAL	EVIL
LAWFUL	**ACCEPTANCE TESTING** Does the whole system work as intended? 	**UNIT TESTING** Do the smallest components of the system work correctly independently? 	**REGRESSION TESTING**  Do new features break or degrade functionality?
NEUTRAL	**INTEGRATION TESTING**  Do the different software components or functions operate together?	**USABILITY TESTING** How well can a customer use a system or web application to complete a task? 	**FUNCTIONAL TESTING** Does the system meet the requirements of the intended business scenarios? 
CHAOTIC	**STRESS TESTING**  How much strain can the system endure before it fails?	**PERFORMANCE TESTING** How does the system perform under different workloads? 	**CHAOS TESTING** Can the system withstand unpredictable, turbulent conditions? 

</Unit testing: An omelette analogy[1]

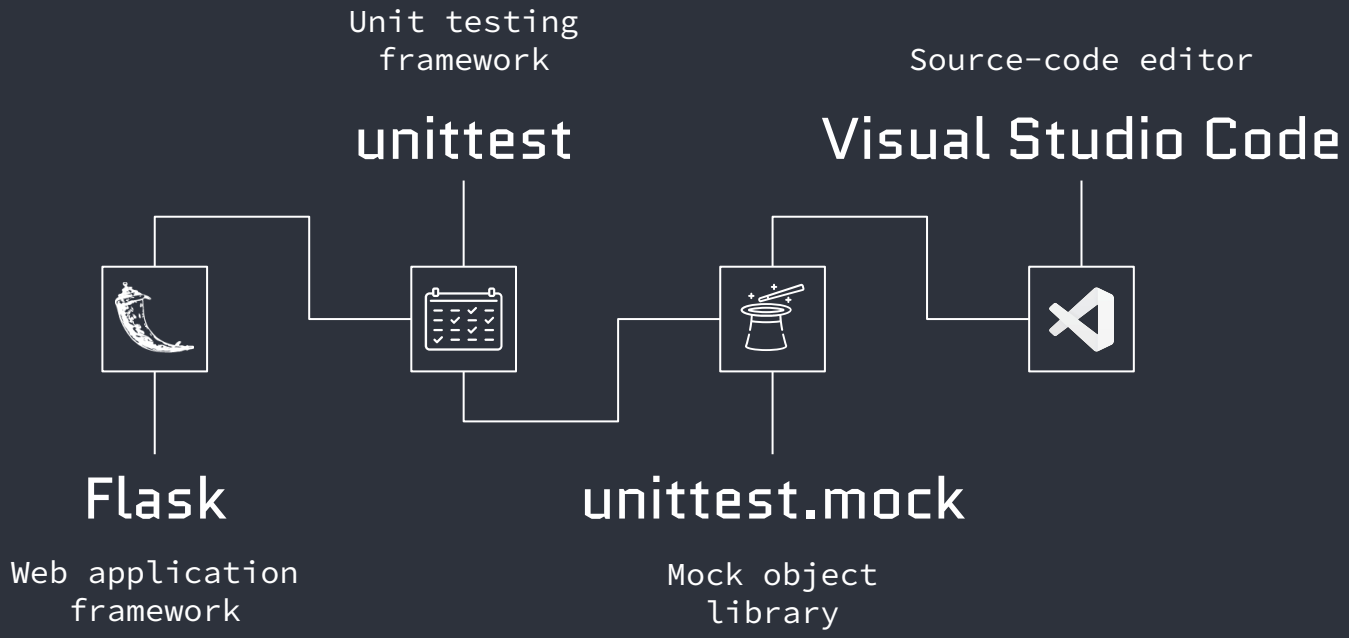
An omelette

A delicious egg dish fried in a pan that often includes fillings like cheese, meat, and vegetables

- **Eggs**
  - Do we have enough eggs?
- **Fillings**
  - Will we include cheese?
- **Frying pan**
  - Is the frying pan clean?
- **Stove**
  - Does the stove work?

[1]“Explain Unit Testing like I'm five.” https://dev.to/kalpeshbdarji/comment/3ama

</Writing & running unit tests



</In summary

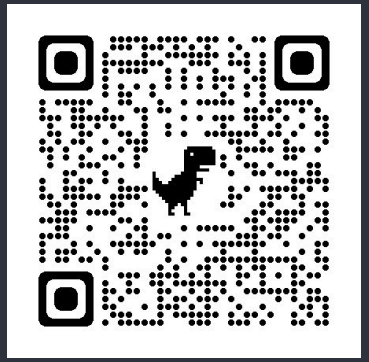
Unit testing

Validates each software unit performs as expected

- Parameterization
- Mocking
- Tests in VS Code

</ Thank you!

liz-acosta.com



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GitHub demo code repo

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