

Mutation testing - vaccine for your code

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Application health

Let's start with....



Immune
system



Mutation testing



Sebastian
Bergmann



Dr Sebastian
Bergmann



Humbug

<https://github.com/humbug/humbug>

Infection



[*https://github.com/infection/infection*](https://github.com/infection/infection)

[*https://infection.github.io*](https://infection.github.io)

Example Mutants

FloatNegation: Replaces "-33.4" with "33.4"

DecrementInteger: Decrements an integer by 1

LogicalOr: Replaces "||" with "&&"

GreaterThanOrEqualTo: Replaces ">=" with ">"

PublicVisibility: Replaces "public " with "protected " for functions



**More
than 90**

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Coalesce: Replaces "\$x = \$a ?? \$b" with "\$x = \$b"

PregMatchSwapCaret: Replace `"/regex/"` with `"/^regex/"`

PregMatchSwapDollar: Replace `"/regex/"` with `"/regex$/"`



**More
than 90**

MSI



$(\text{Total Defeated Mutants} / \text{Total Mutants Count}) * 100\%$

Live coding.

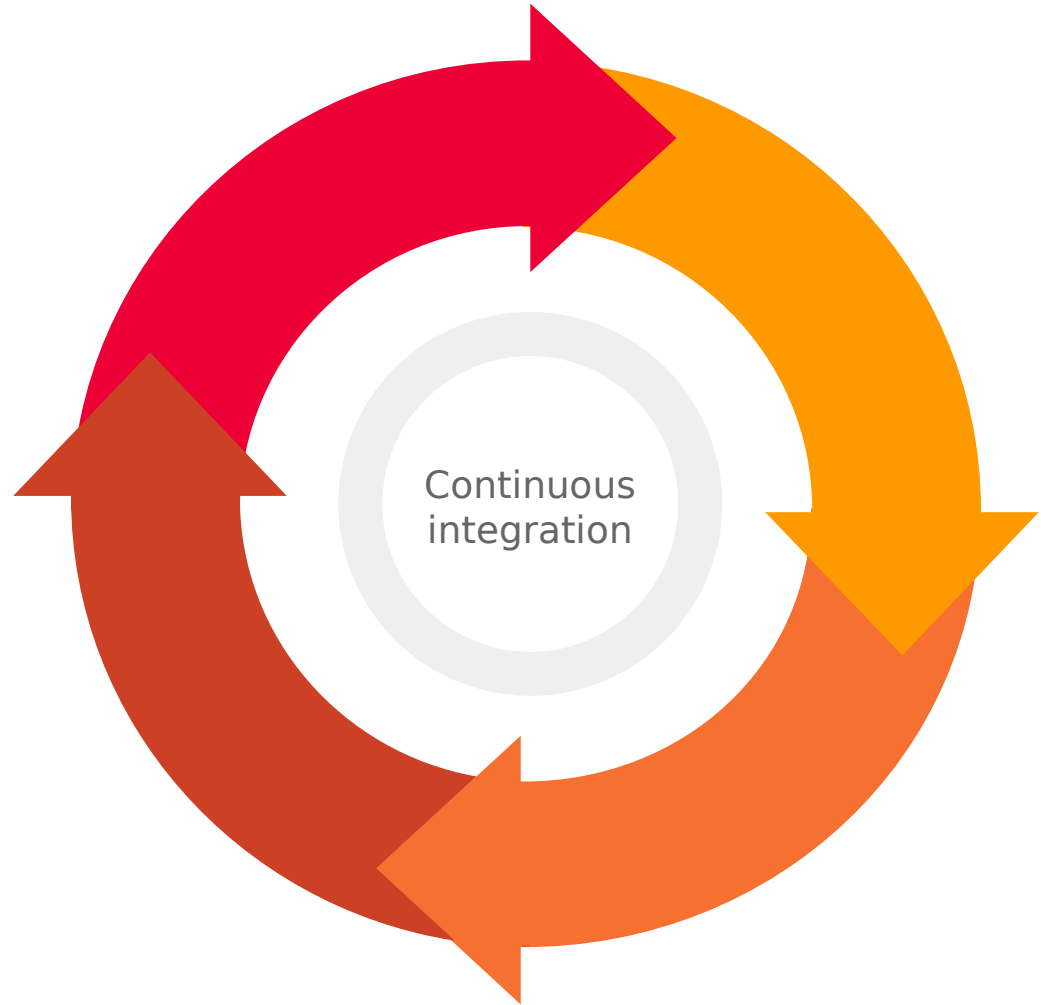


Questions time 🕒

Ask me!



Continuous integration



Magento + Infection





Thank you very much
for your time

If you have any questions about my
presentation please don't hesitate to
contact me at:



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