

Embrace these Three Fearsome Words: Test In Production

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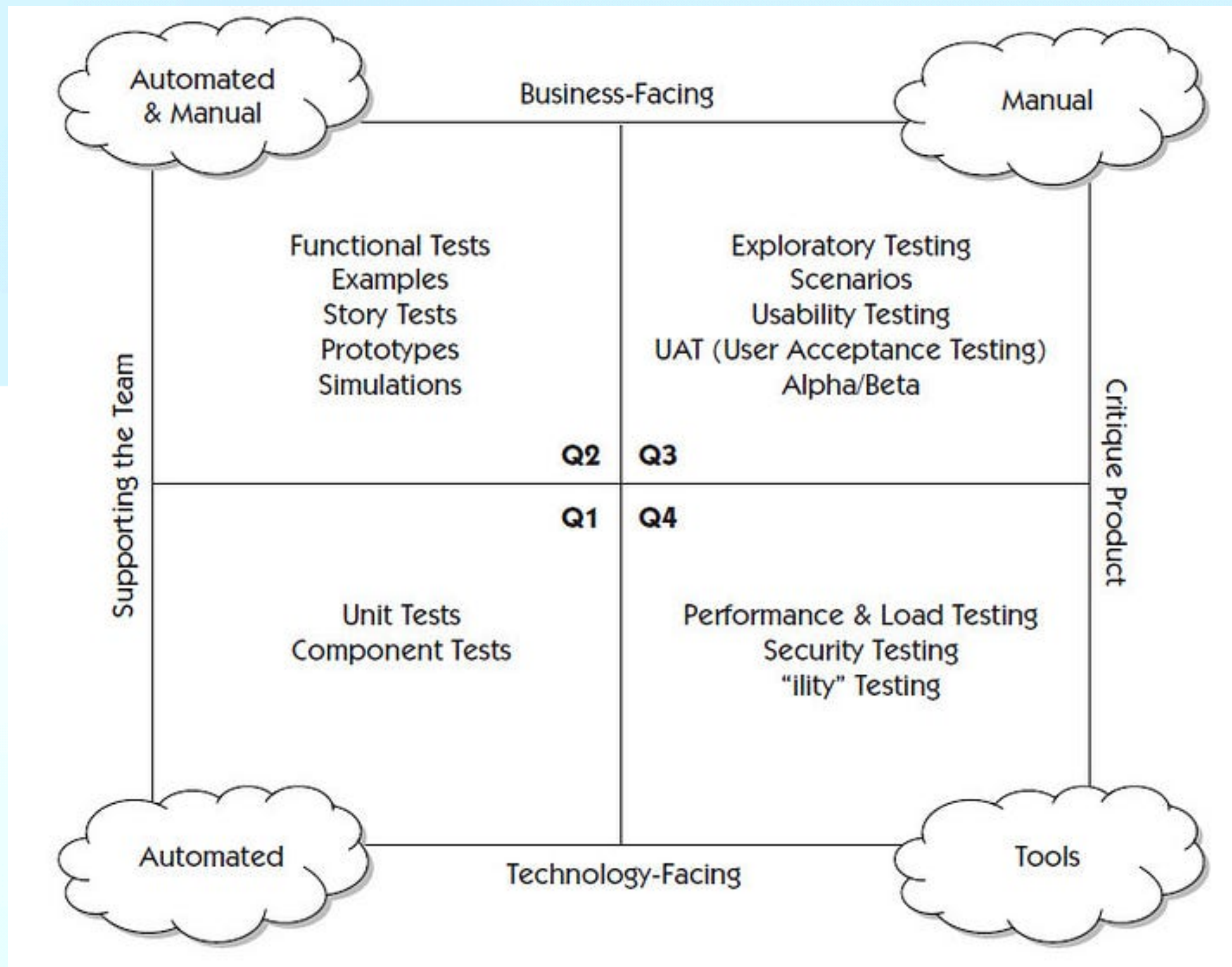
What are we talking about?

Which Tests?

One Test, Two Test, Red Test, Blue Test

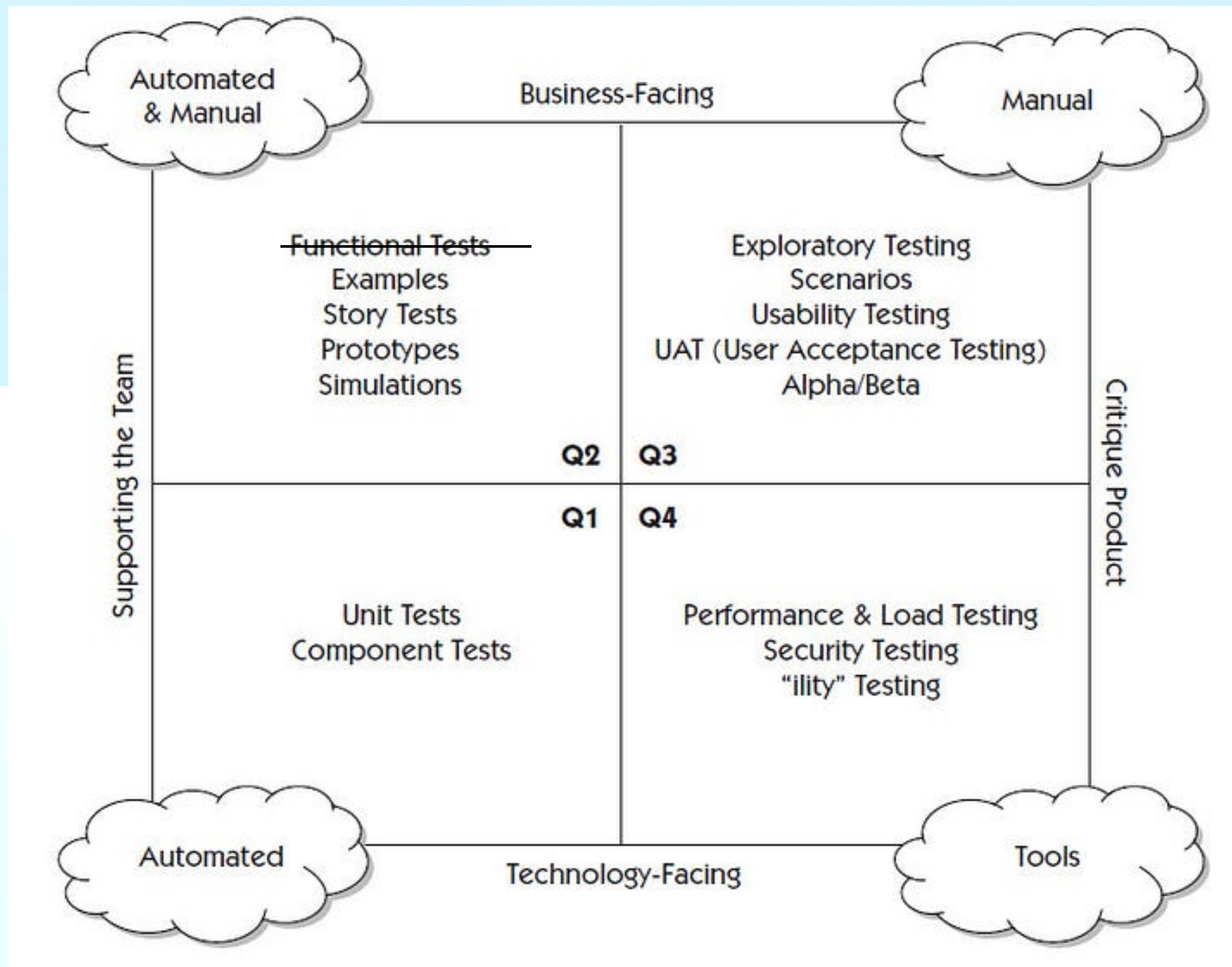
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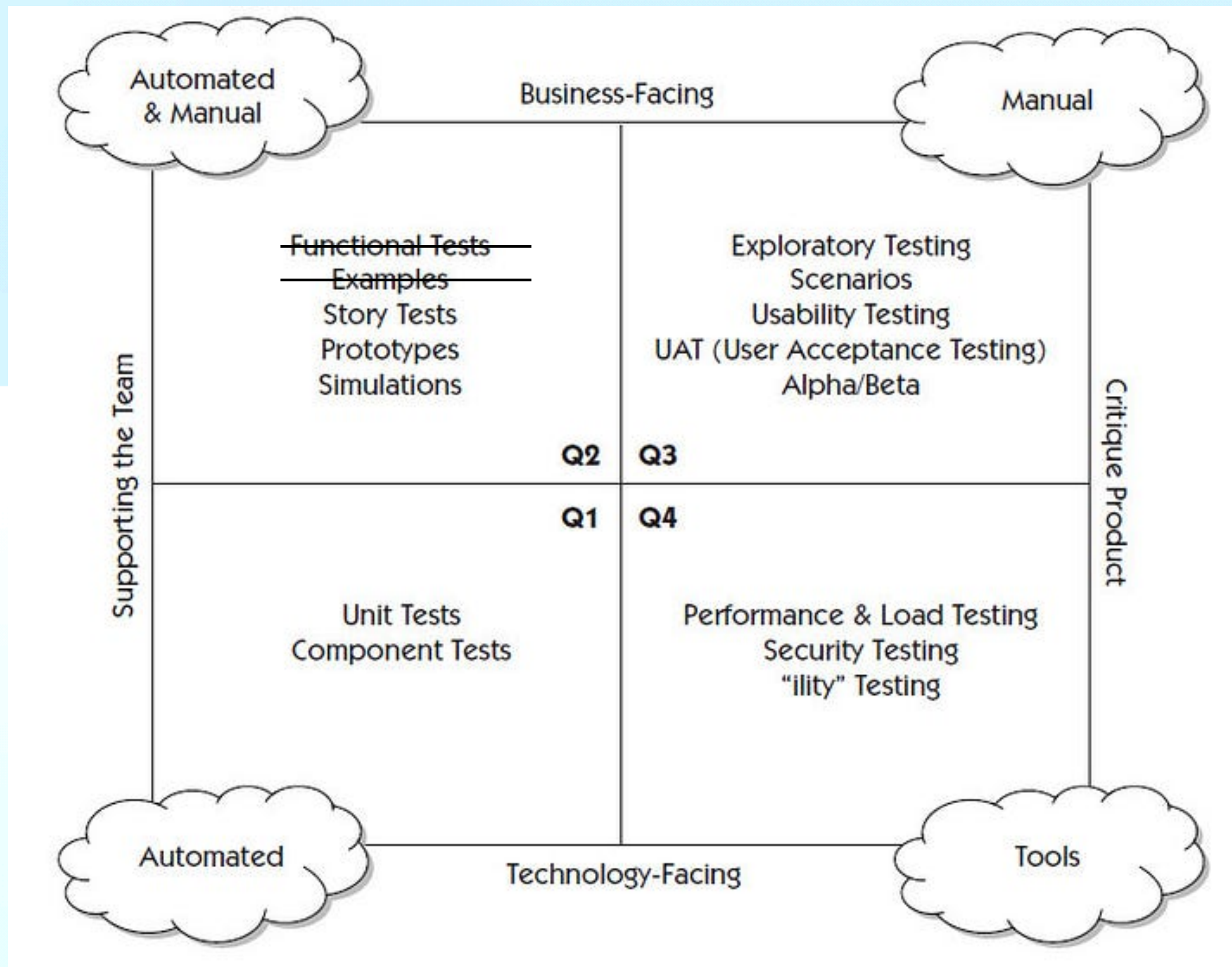
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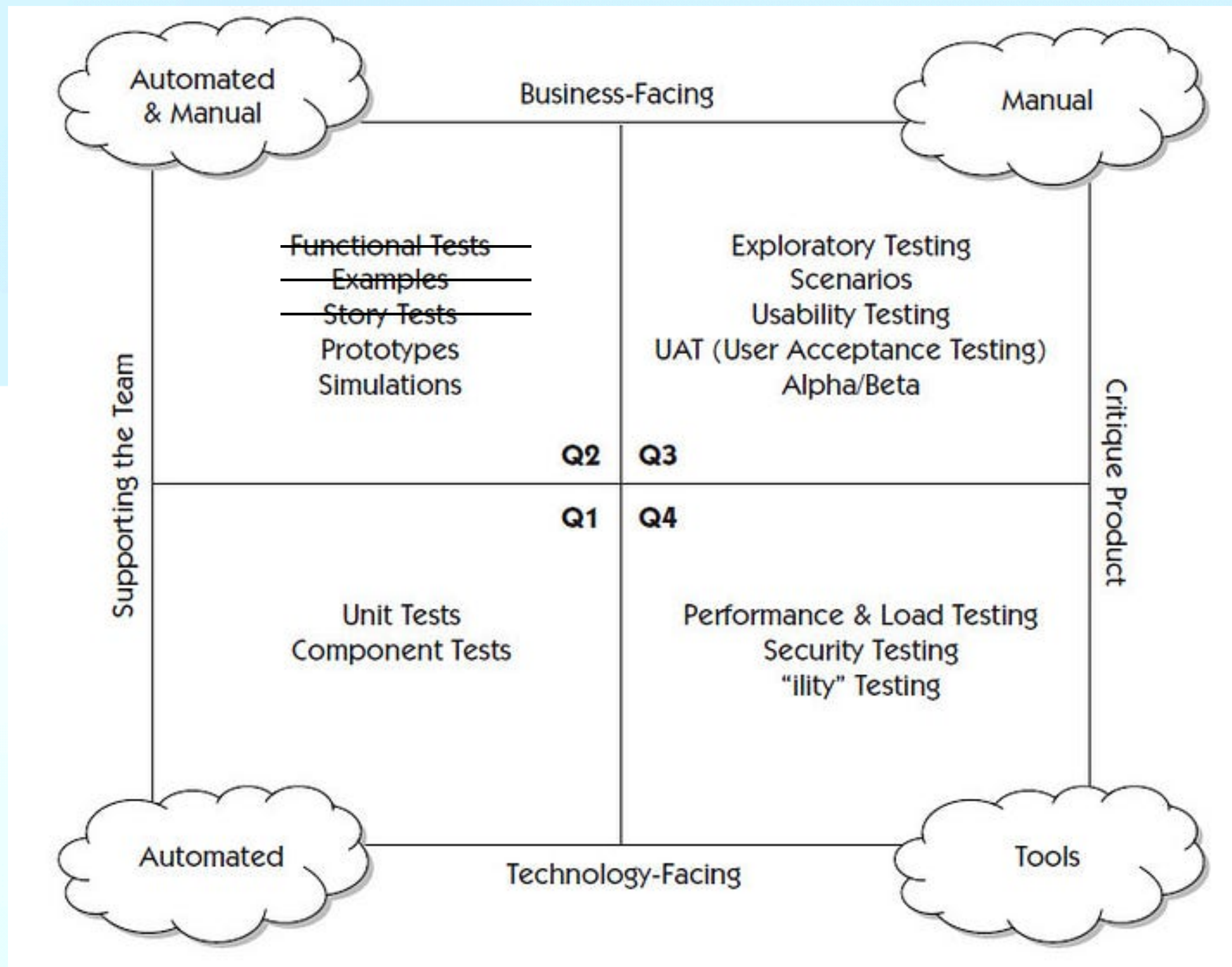
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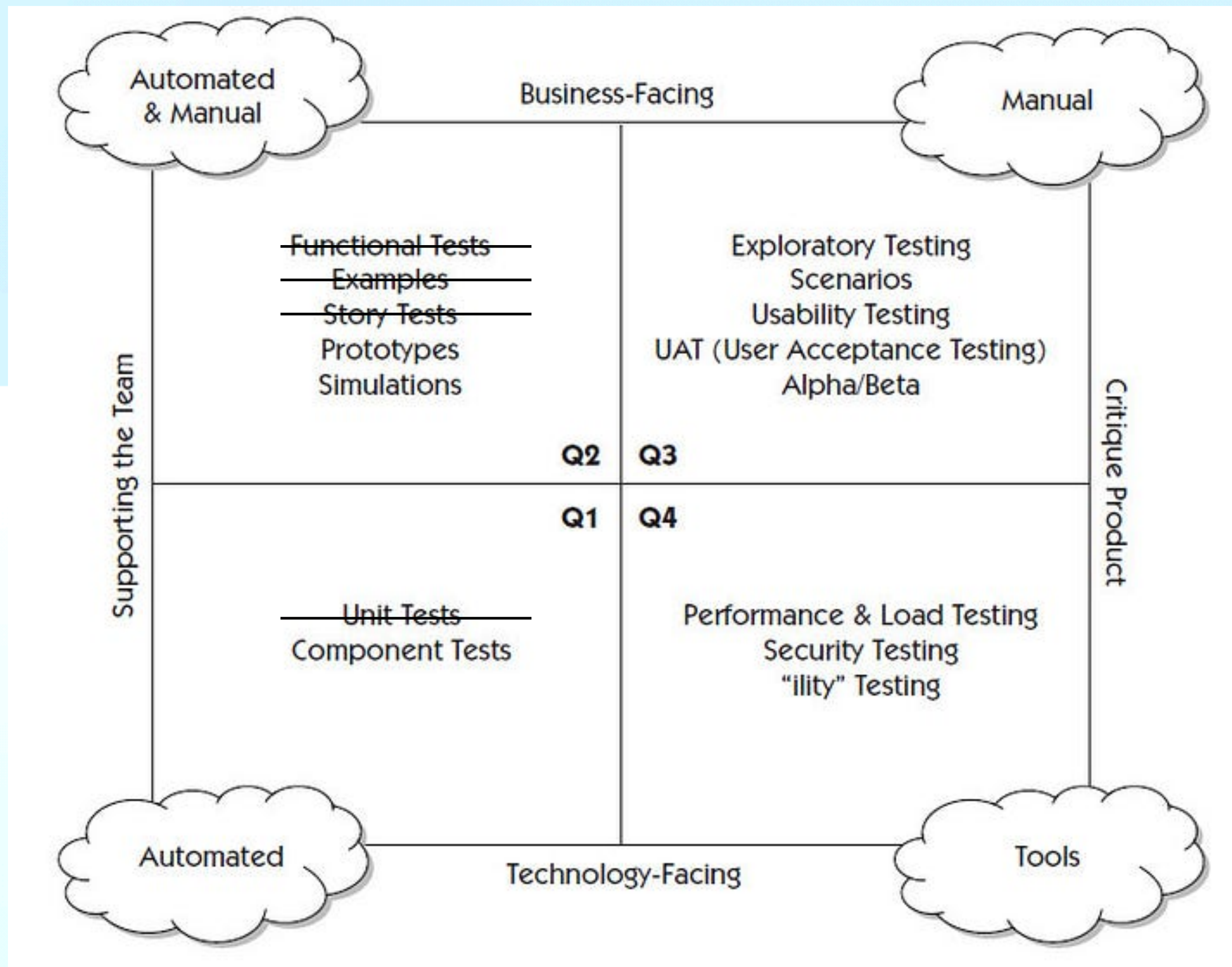
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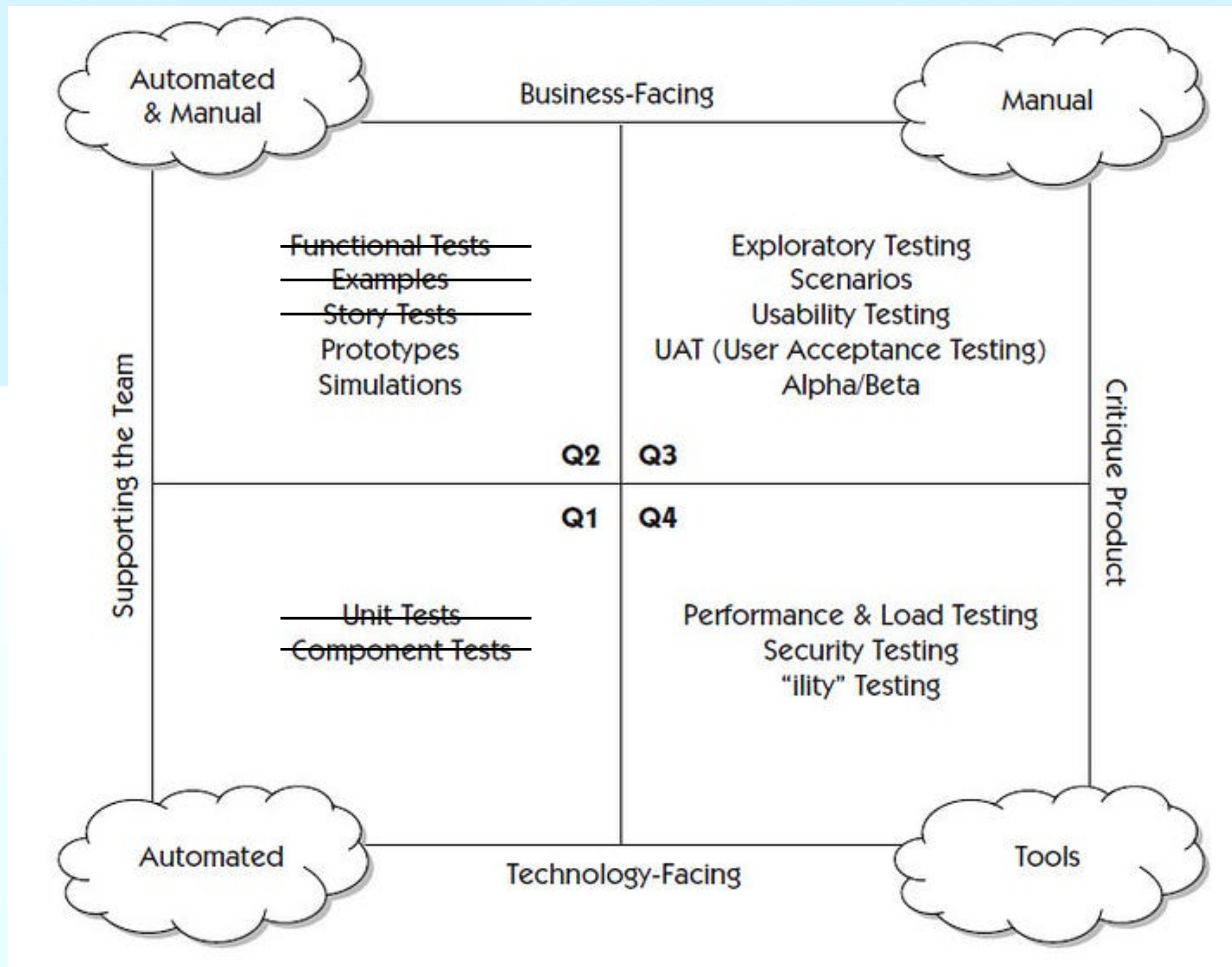
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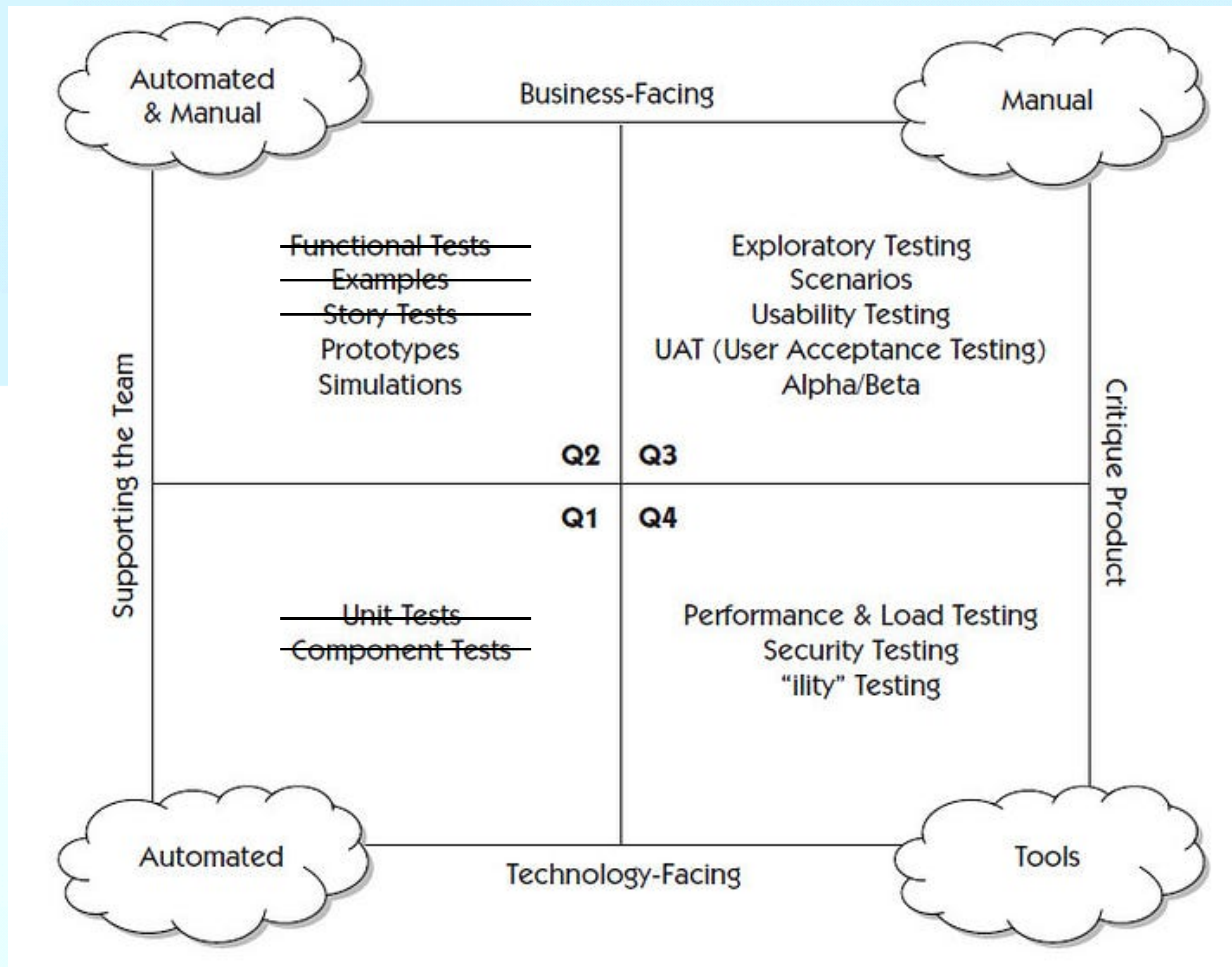
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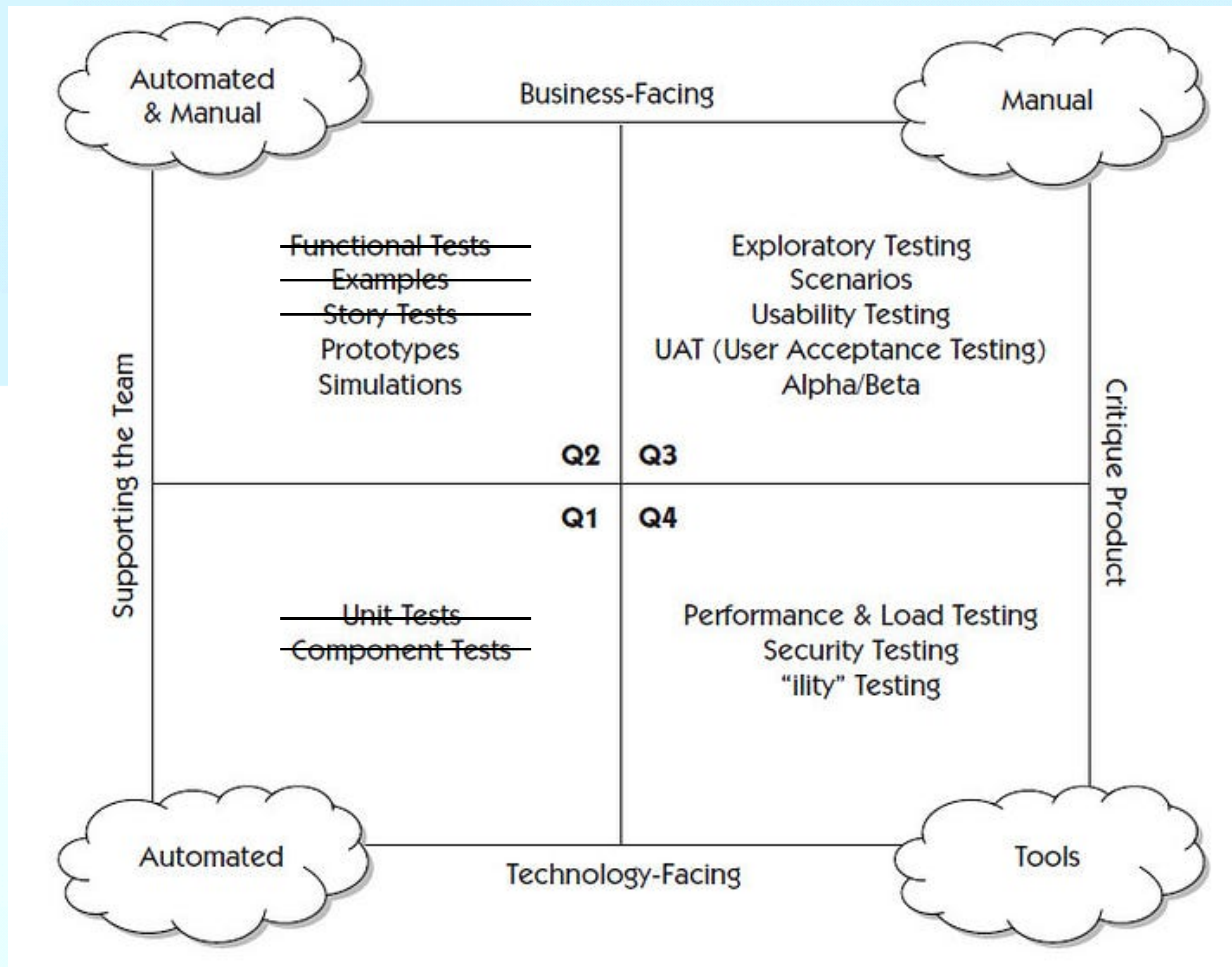
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- Tests that we can't /don't want to automate
- Tests that require scale



Traditional Testing Environments

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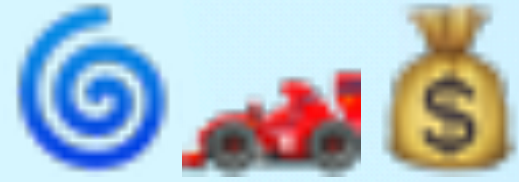
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- “Make sure this fake system works how you want it to”

Why would we want to do this?

Benefits of Production Testing

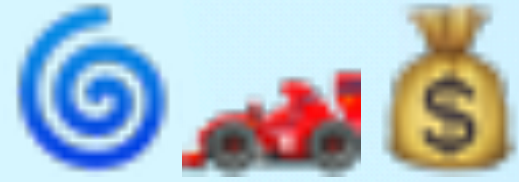


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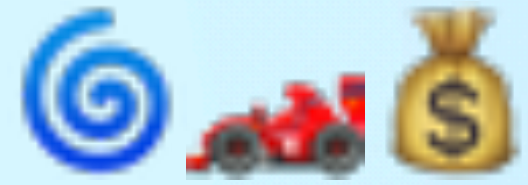
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Benefits of Production Testing



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- Faster Feedback Loops

Benefits of Production Testing



- Shorter Cycle Time
- Faster Feedback Loops
- Lower Infrastructure Costs

What's Stopping us from Testing in Production?

... but ... but ... but ... but ... whatabout?

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... but ... but ... but ... but ... whatabout?

Appeal to tradition

fallacy

fallacies.escepticos.es

Show some respect!
This is a
very old tradition.



What's Stopping us from Testing in Production?

... but ... but ... but ... but ... whatabout?

We are uncovering better ways of developing software by doing it and helping others do it.

What's Stopping us from Testing in Production?

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How can we do it?

Understand what Constitutes Test Data

Know thy environment

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Know thy environment

```
@RestController
@RequestMapping("api/v1/secret-stuff")
class SuperSecretController(val superSecretService: SuperSecretService) {

    @GetMapping("/sauce")
    suspend fun generateSecretSauce(
        @RequestHeader(name = "Run-Environment") runEnvironment: String,
        @RequestParam("flavor") flavor: String,
        @RequestParam("amount") amount: Int = 8
    ): SecretResponse<Sauce> {
        val sauce : Sauce = superSecretService.generateSecrets(runEnvironment, flavor, amount)
        return SecretResponse(sauce)
    }
}
```

Control what Customers See

They who control the spice, control the universe!

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```
if (ffEnabled(featureFlags, key: 'secret.sauce.enabled')) {  
  sortOptions.push(  
    label: 'Saucy!',  
    value: relevanceValue,  
  });  
}
```

Play Nicely

We have to live next to each other

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We have to live next to each other

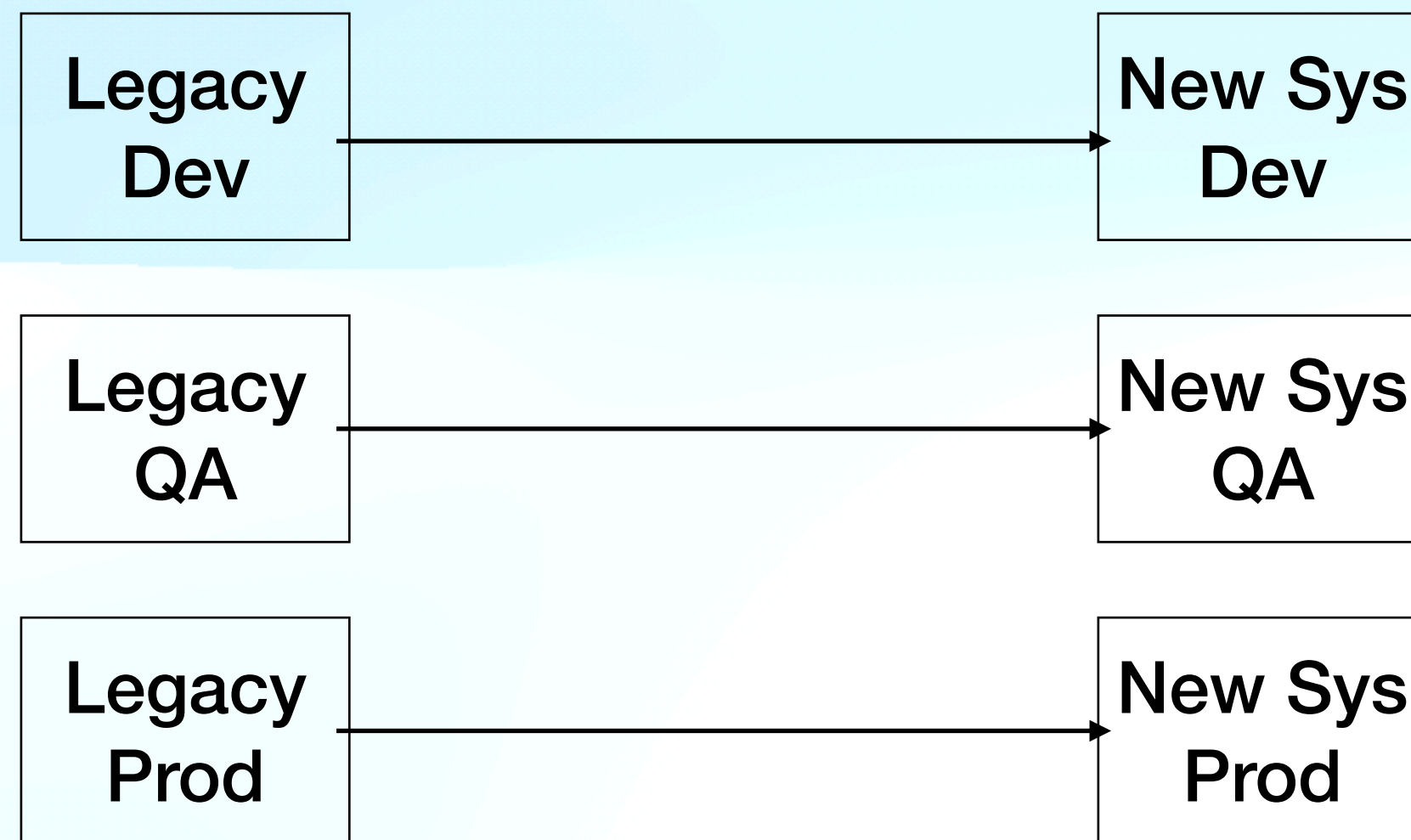
Legacy
Dev

Legacy
QA

Legacy
Prod

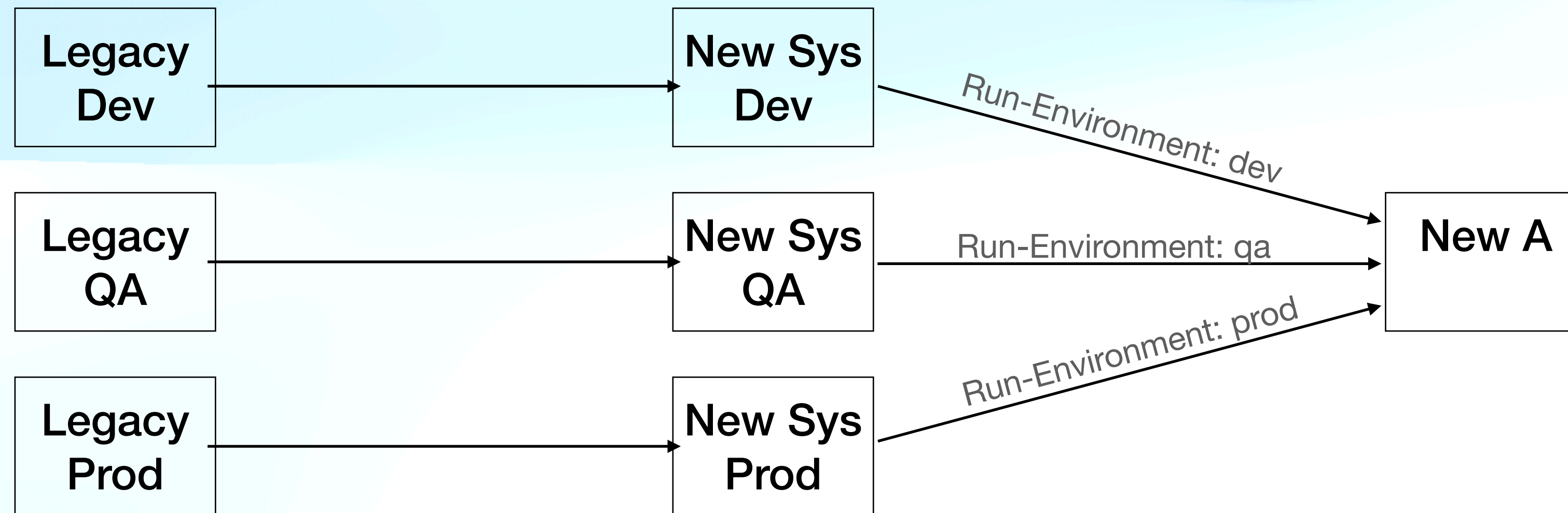
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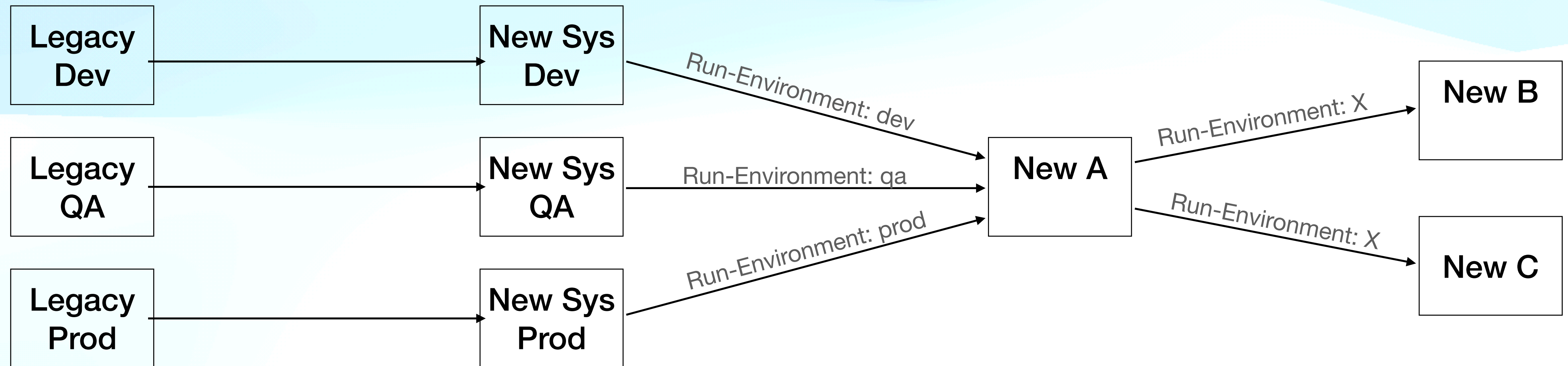
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Performance Testing

Can you feel it?

Performance Testing

Can you feel it?

- Scale up slowly

Performance Testing

Can you feel it?

- Scale up slowly
- Monitor

Performance Testing

Can you feel it?

- Scale up slowly
- Monitor
- If it looks like customers might be impacted, scale back, fix & repeat

Be the (right kind of) Enabler!

Continuous Deployment

Calling it CI/CD doesn't mean it is ...

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All workflows

Showing runs from all workflows

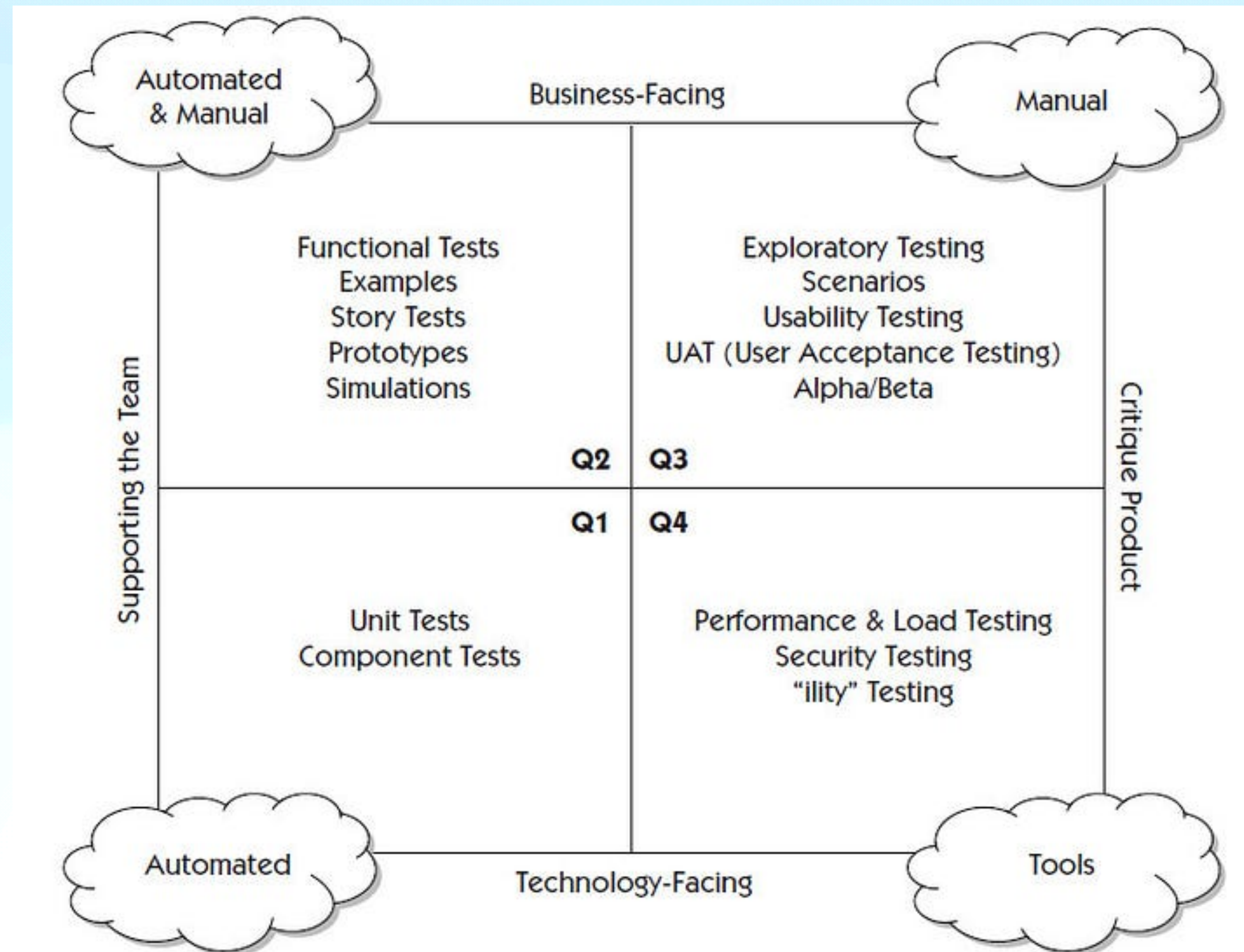
Filter workflow runs

115 workflow runs				Event ▾	Status ▾	Branch ▾	Actor ▾
✔	the dividers are thinner now	CI / CD [redacted]15: Commit b2dab3f pushed by [redacted]	main		1 hour ago	5m 46s	...
✔	feature: updating the [redacted]'s explore more link	CI / CD [redacted]14: Commit 9ad17e5 pushed by [redacted]	main		2 hours ago	5m 28s	...
✔	randomize ad zone ids when passing to components	CI / CD [redacted]13: Commit 078f755 pushed by [redacted]	main		2 hours ago	5m 43s	...
✔	It adds divider for breadcrumb and details. It adds divider for detai...	CI / CD [redacted]12: Commit f70ce3a pushed by [redacted]	main		3 hours ago	5m 26s	...
✔	added skyscraper using direct revive ads	CI / CD [redacted]11: Commit 0899e3b pushed by nhajratw	main		5 hours ago	5m 35s	...
✔	added featured event banner using direct revive ads	CI / CD [redacted]10: Commit 1ba561c pushed by nhajratw	main		5 hours ago	5m 35s	...
✔	fixed typo in category name	CI / CD [redacted]09: Commit 1cb53f2 pushed by nhajratw	main		7 hours ago	5m 49s	...
✔	PC-2567 Fix more spacing.	CI / CD [redacted]108: Commit f2369b8 pushed by [redacted]	main		3 days ago	5m 20s	...
✔	test carousel on primary page	CI / CD [redacted]107: Commit 053bb82 pushed by [redacted]	main		3 days ago	5m 45s	...
✔	PC-2567 Start to fix spacing.	CI / CD [redacted]106: Commit cde1285 pushed by [redacted]	main		3 days ago	5m 21s	...
✔	feature: fixing the [redacted]'s content width	CI / CD [redacted]105: Commit 81748cf pushed by [redacted]	main		3 days ago	5m 32s	...
✔	feature: adding paddings	CI / CD [redacted]104: Commit 4d75c0c pushed by [redacted]	main		3 days ago	5m 33s	...
✔	fix initial state for carousel	CI / CD [redacted]103: Commit 4cdb89e pushed by [redacted]	main		3 days ago	5m 31s	...

Robust Automated Testing



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Continuously Adapt Practices & Processes

A pinch of this and a dash of that

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- What works for one, may not work for another
 - Example: Fake Services
- Keep it Lean - stop doing things too!

**Even if you don't end up testing in
Production, thinking about the barriers
will make you better**