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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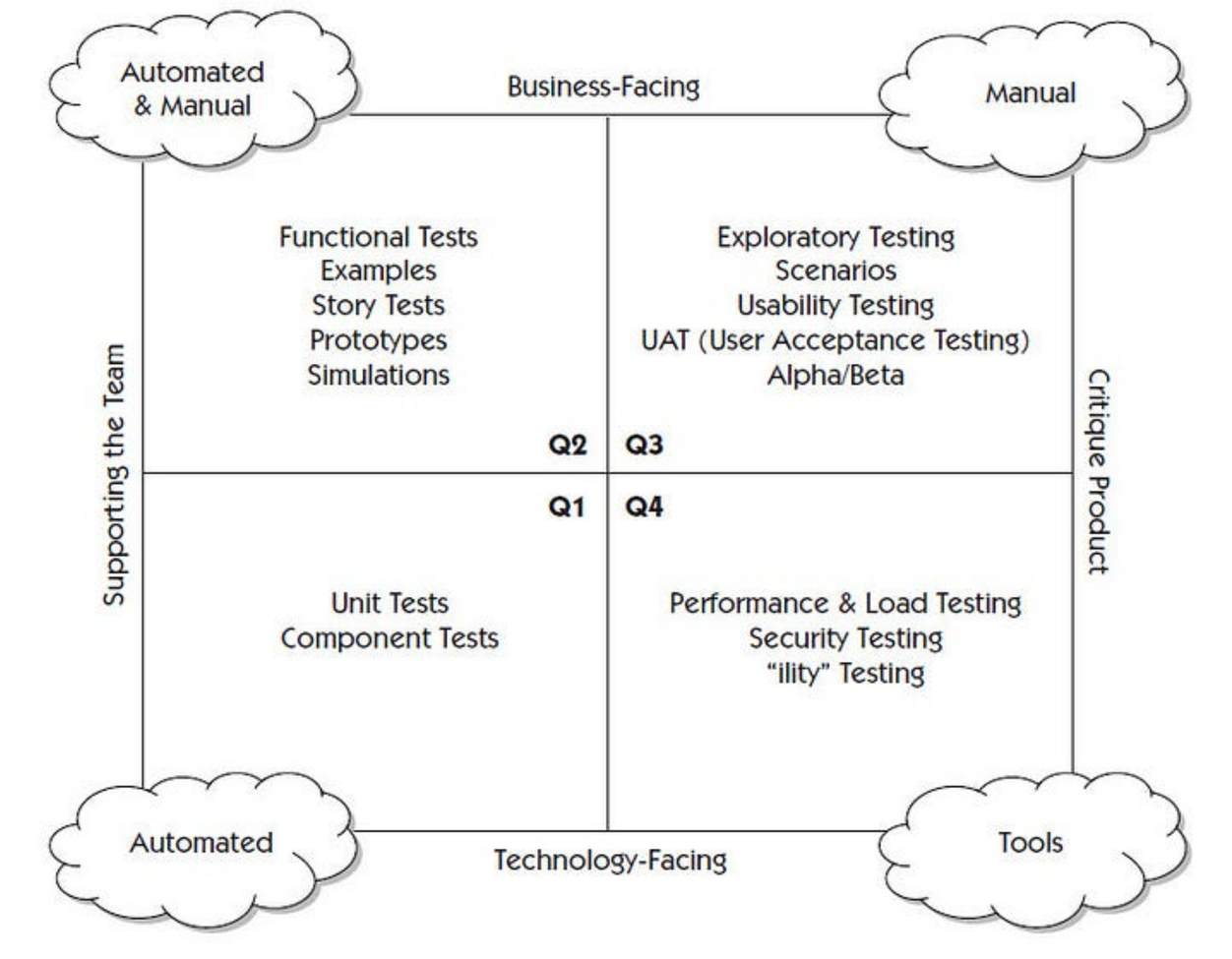

Agile Testing Quadrants - Brian Marick, Janet Gregory, Lisa Crispin

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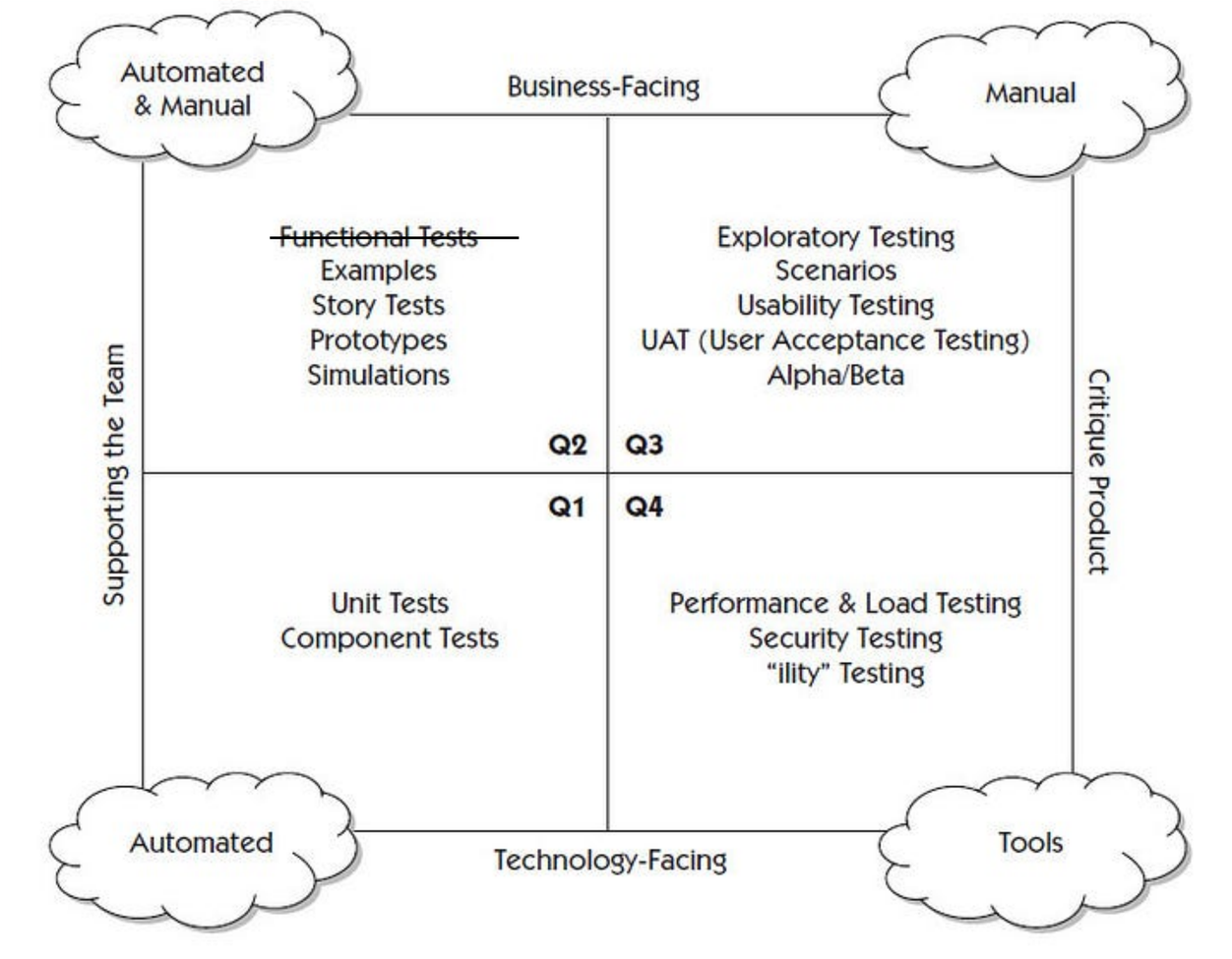

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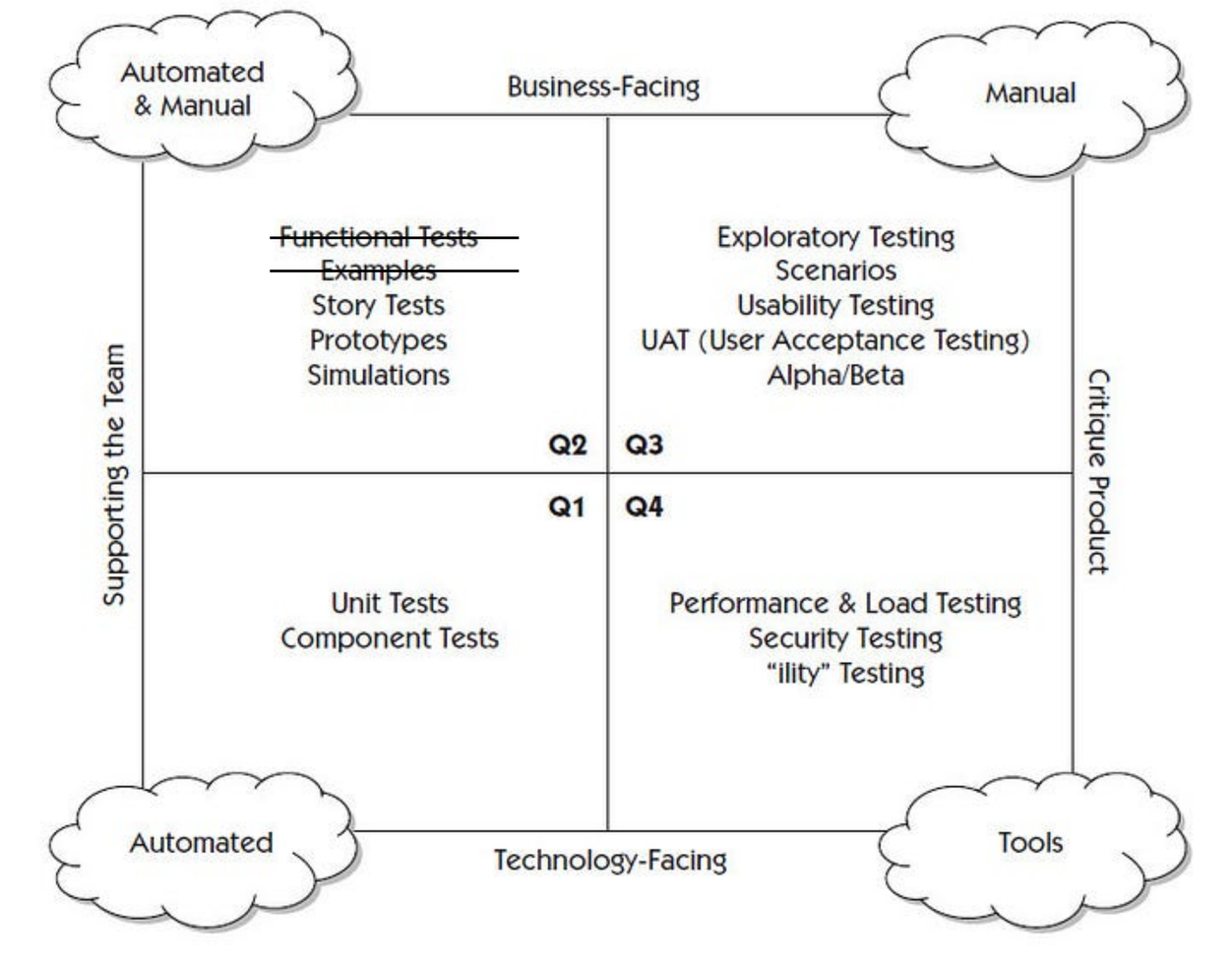

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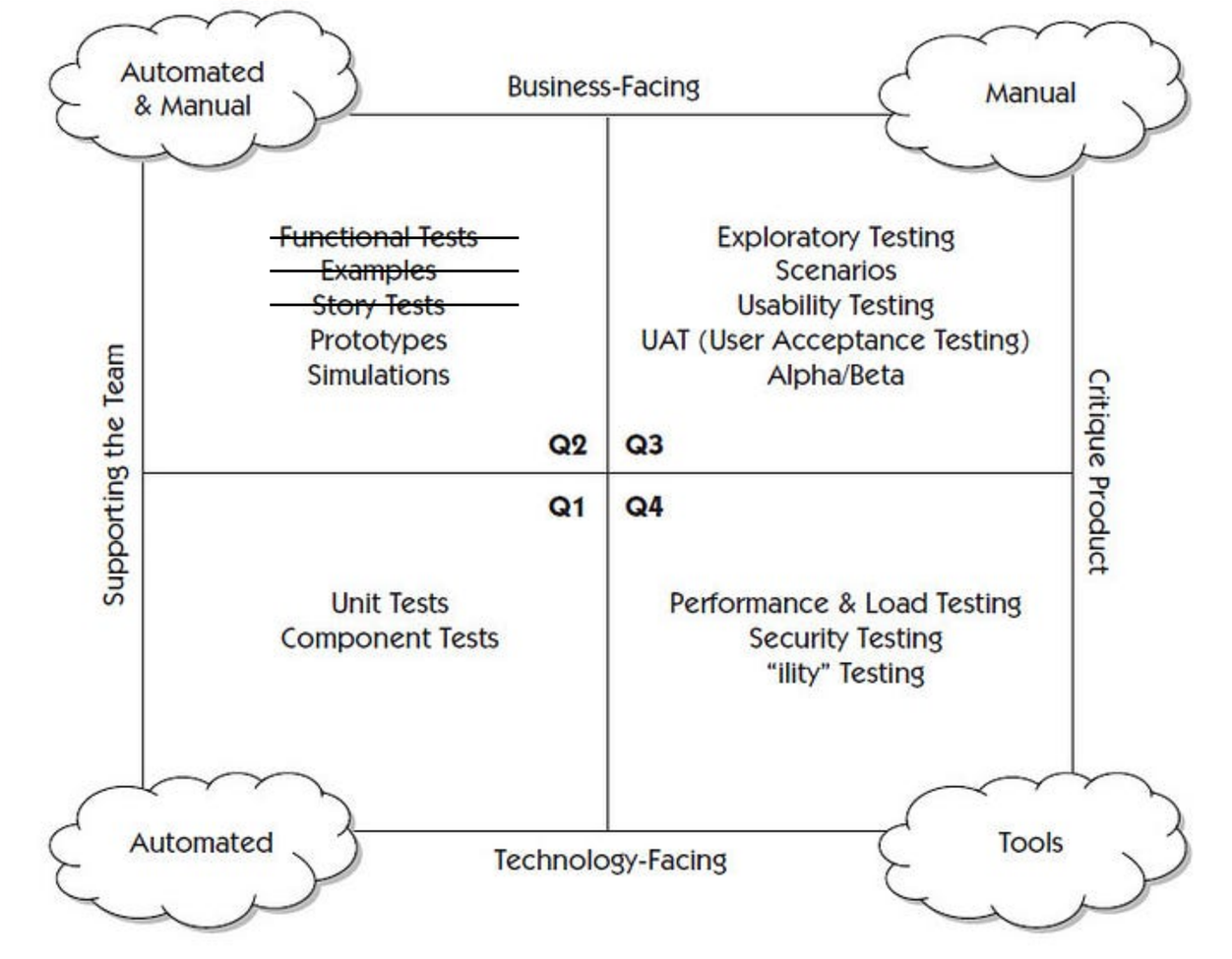

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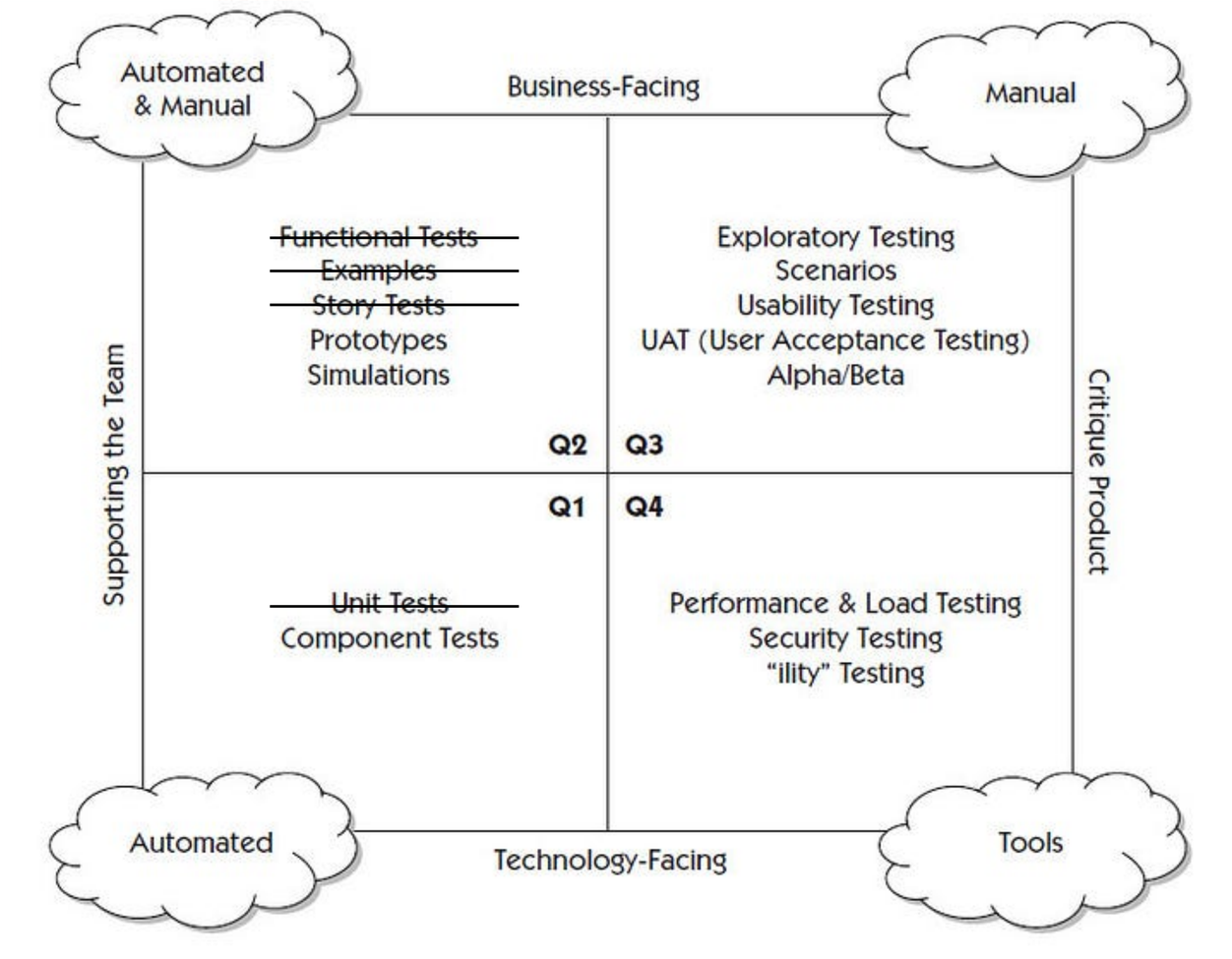

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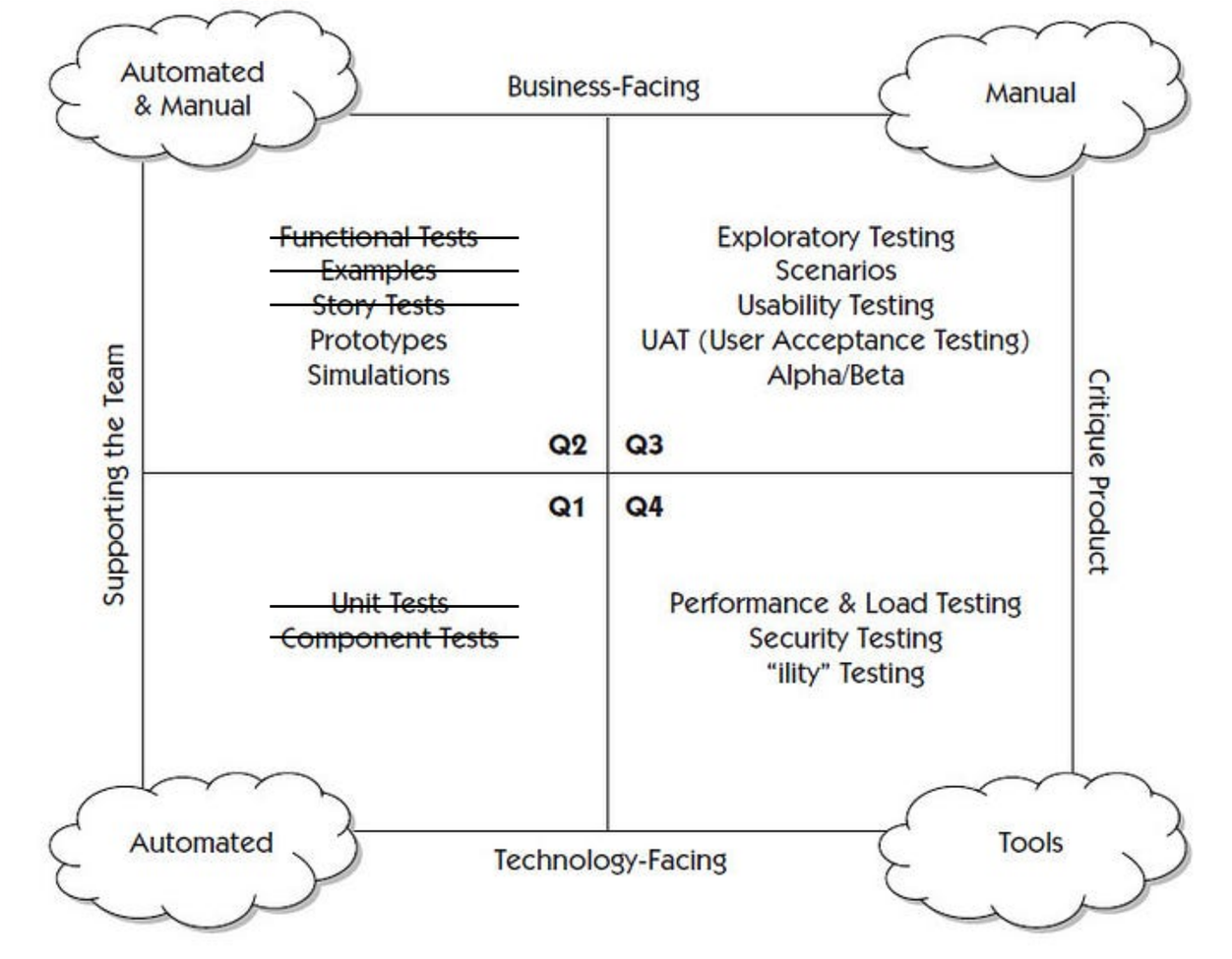

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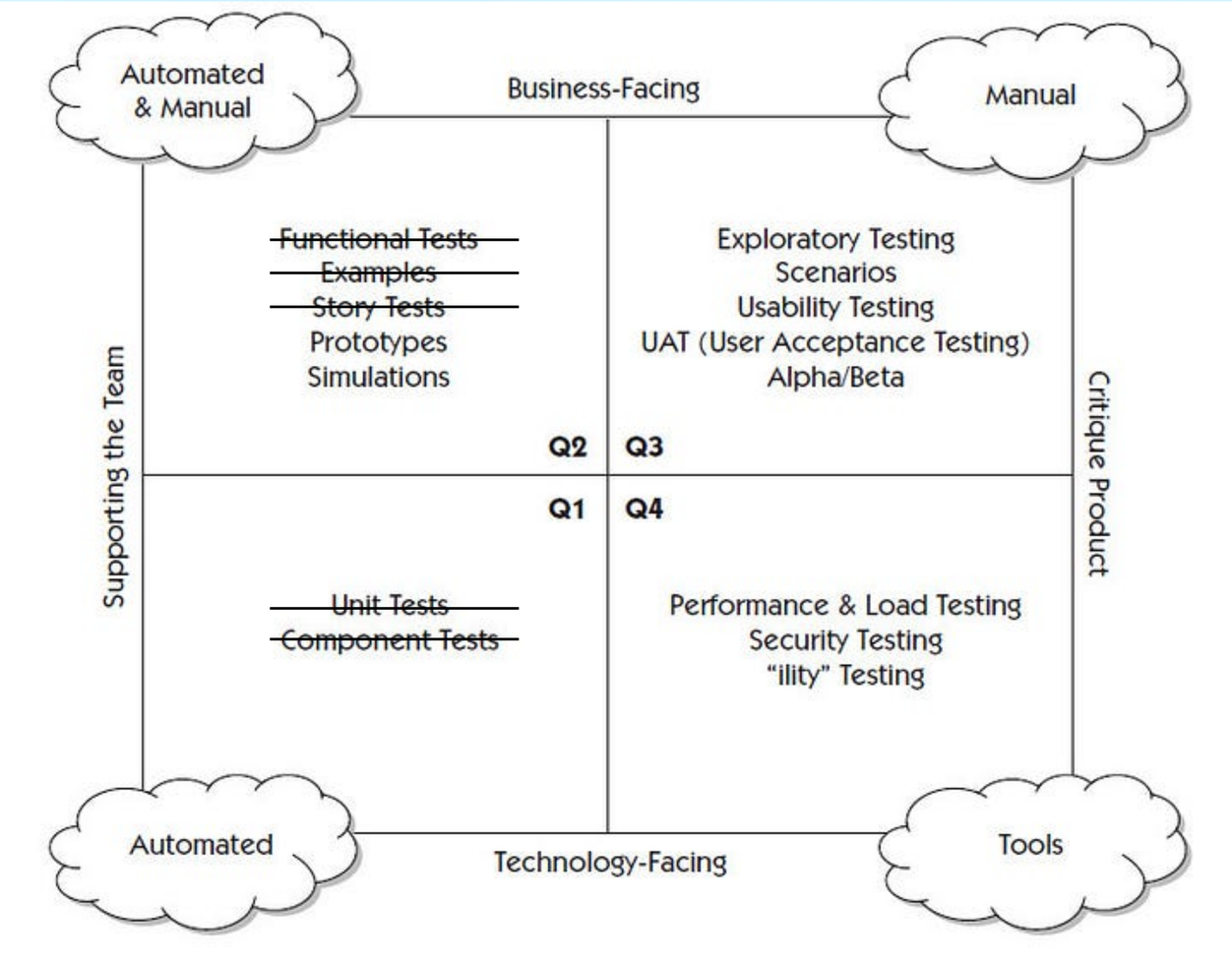

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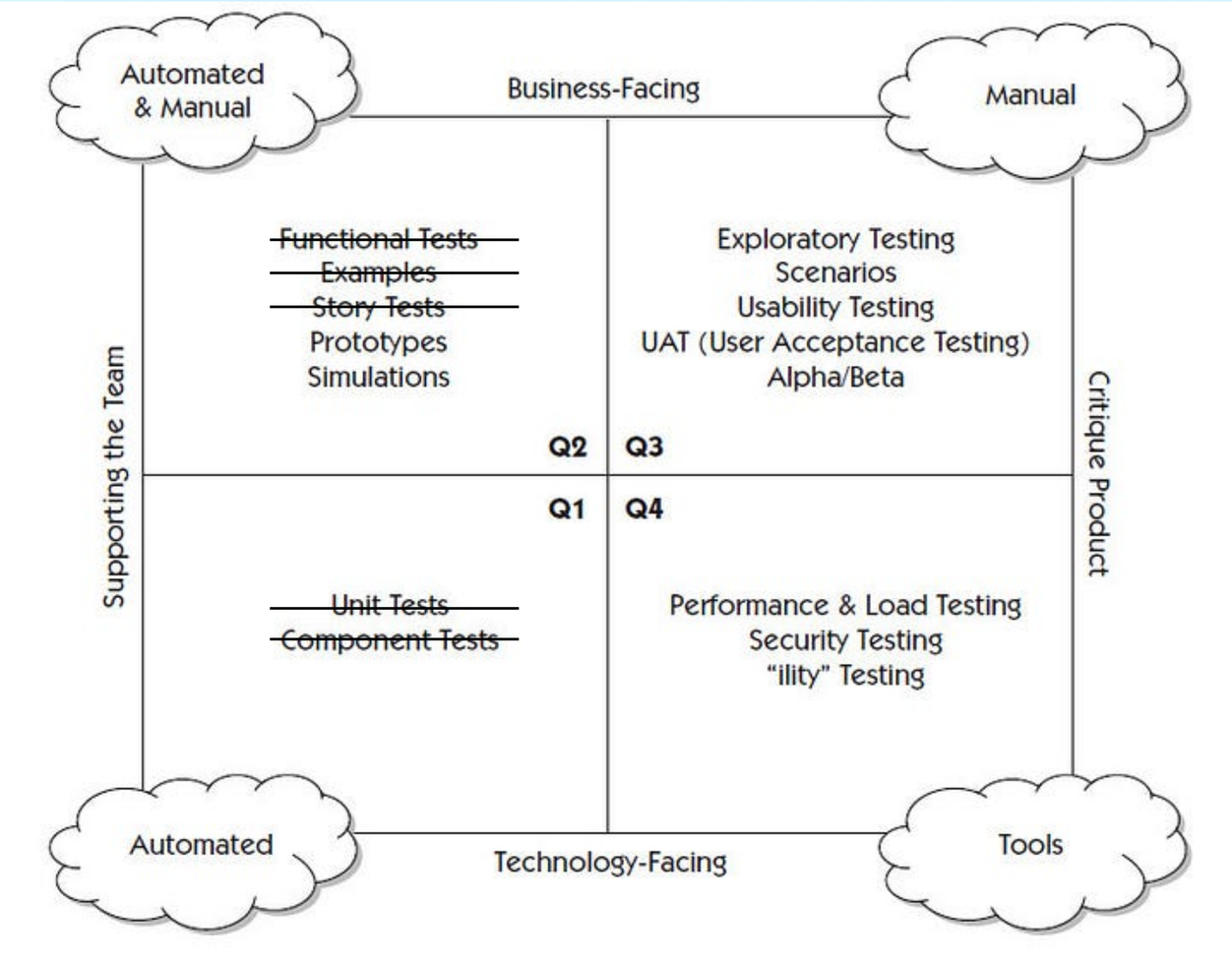

- Tests that we can't /don't want to automate
- Tests that require scale

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Traditional Testing Environments

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- “Oh, we forgot to deploy X to the Y.”
- Test Data - stale, complex, obsolete
- “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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- Shorter Cycle Time

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

What's Stopping us from Testing in Production?

… but … but … but … but … whatabout?

How can we do it?

Understand what Constitutes Test Data

Know thy environment

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```
@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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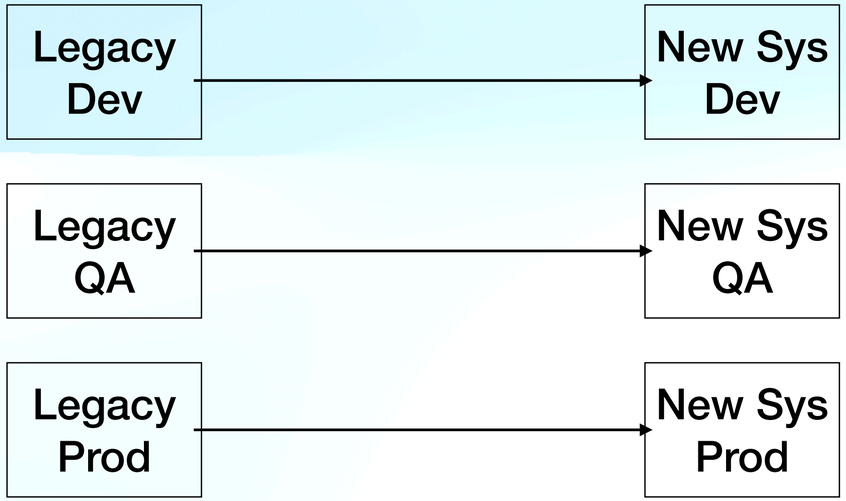

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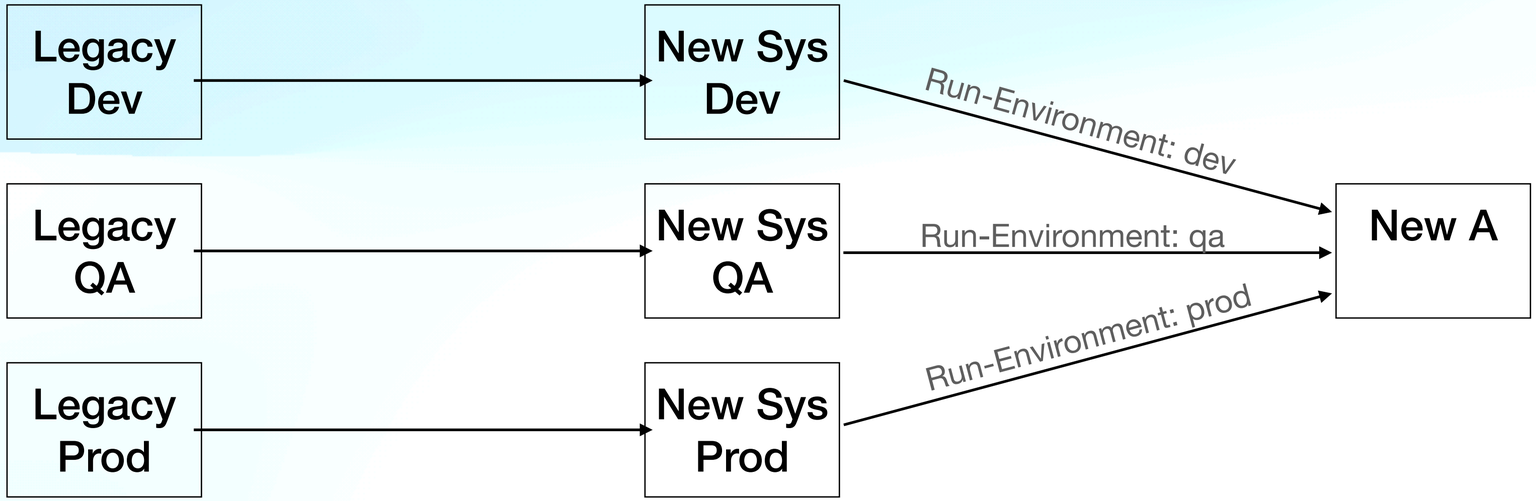

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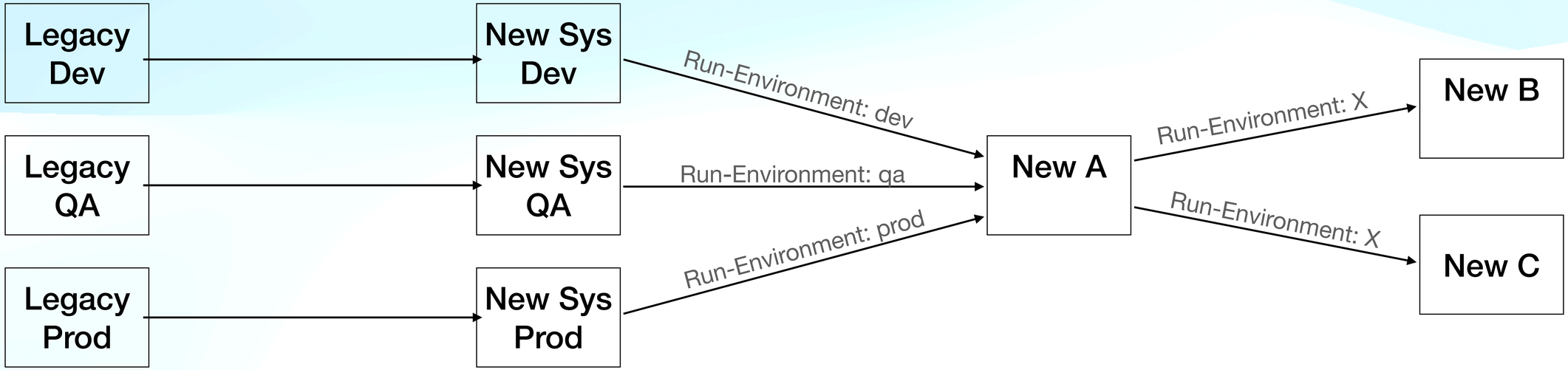

Performance Testing

Can you feel it?

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- Scale up slowly

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- 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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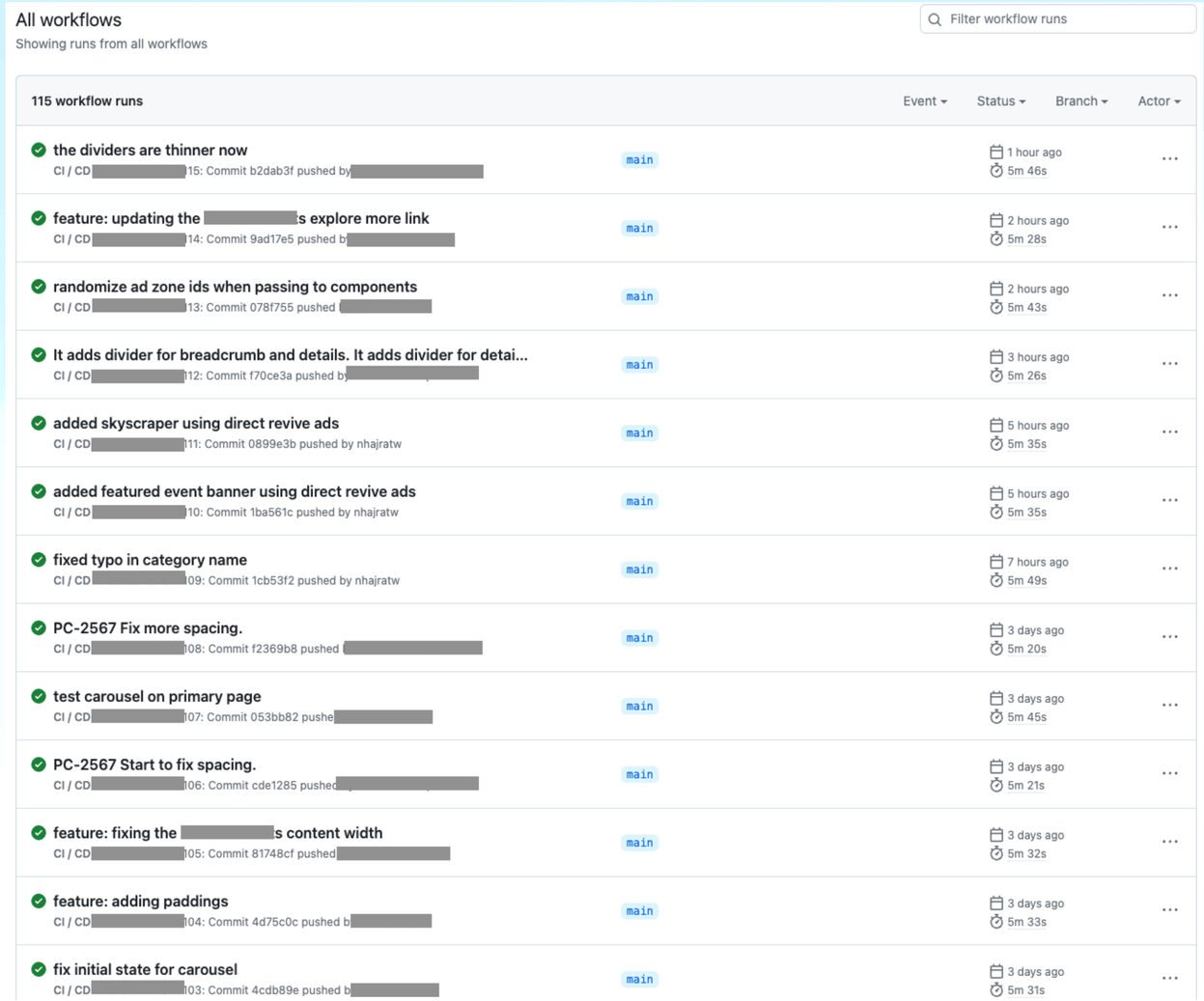

Robust Automated Testing

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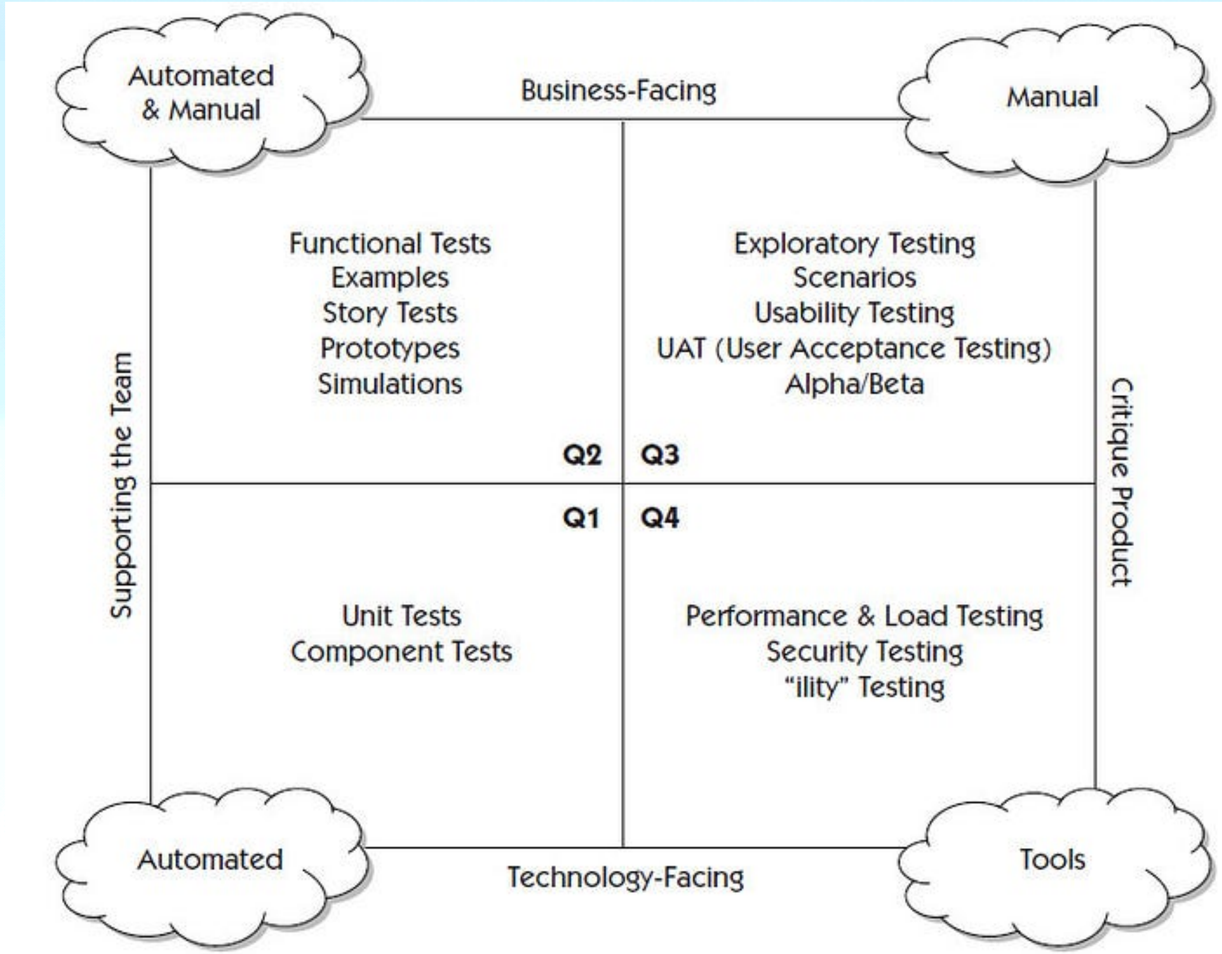

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- What works for one, may not work for another
  - Example: Fake Services
- Keep it Lean - stop doing things too!

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

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