TDD -> A tale of two cities

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Speaker

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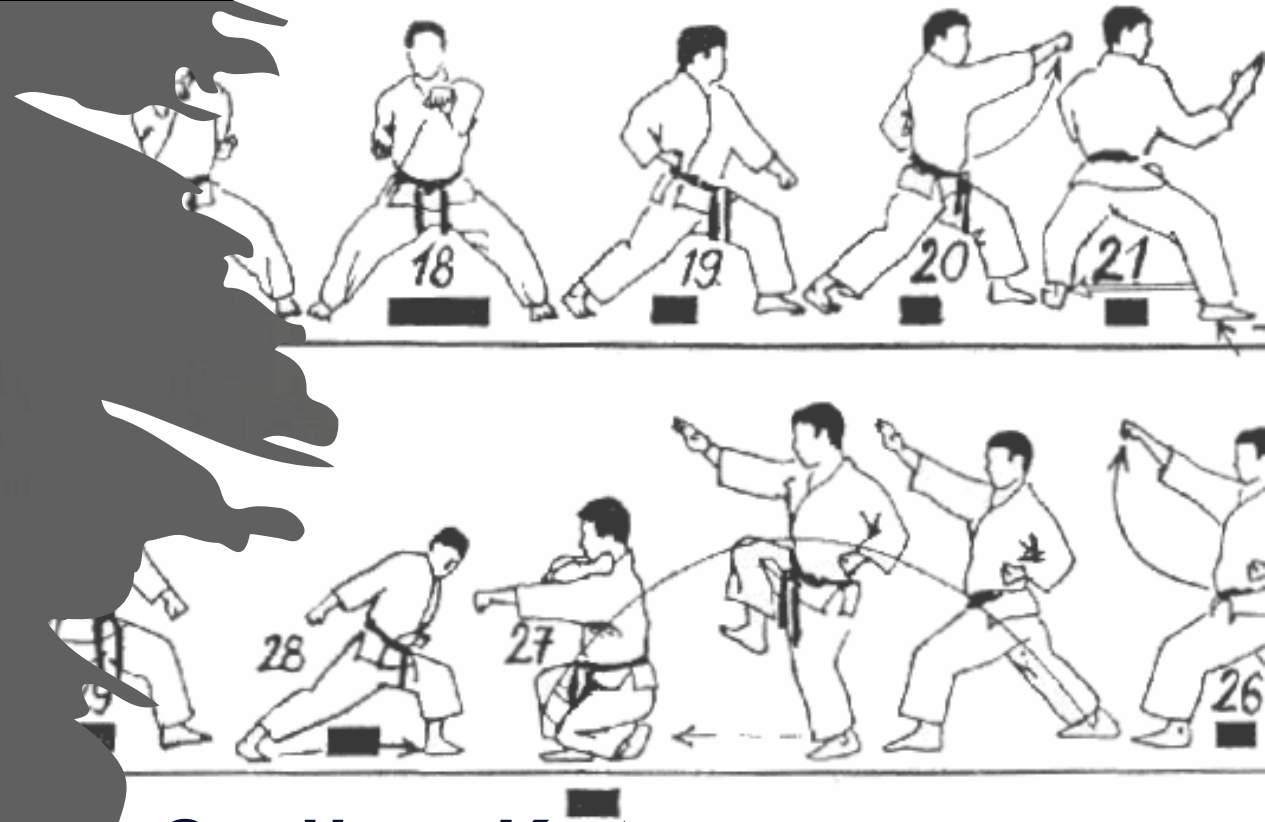
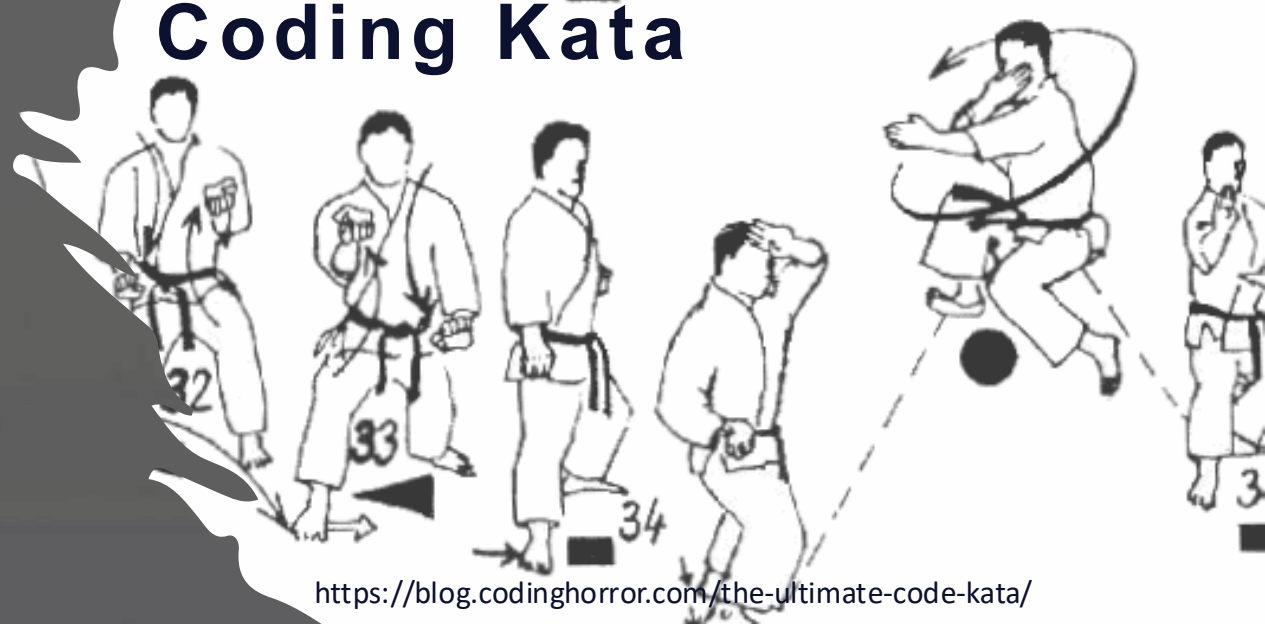
"C#", "C/C++", "Angular", "SQL Server",
"MongoDB", "RabbitMq", "Docker", "K8s",
"AWS", "LINUX"
]
}

Active listening

https://hbr.org/2024/01/what-is-active-listening

Coding Kata



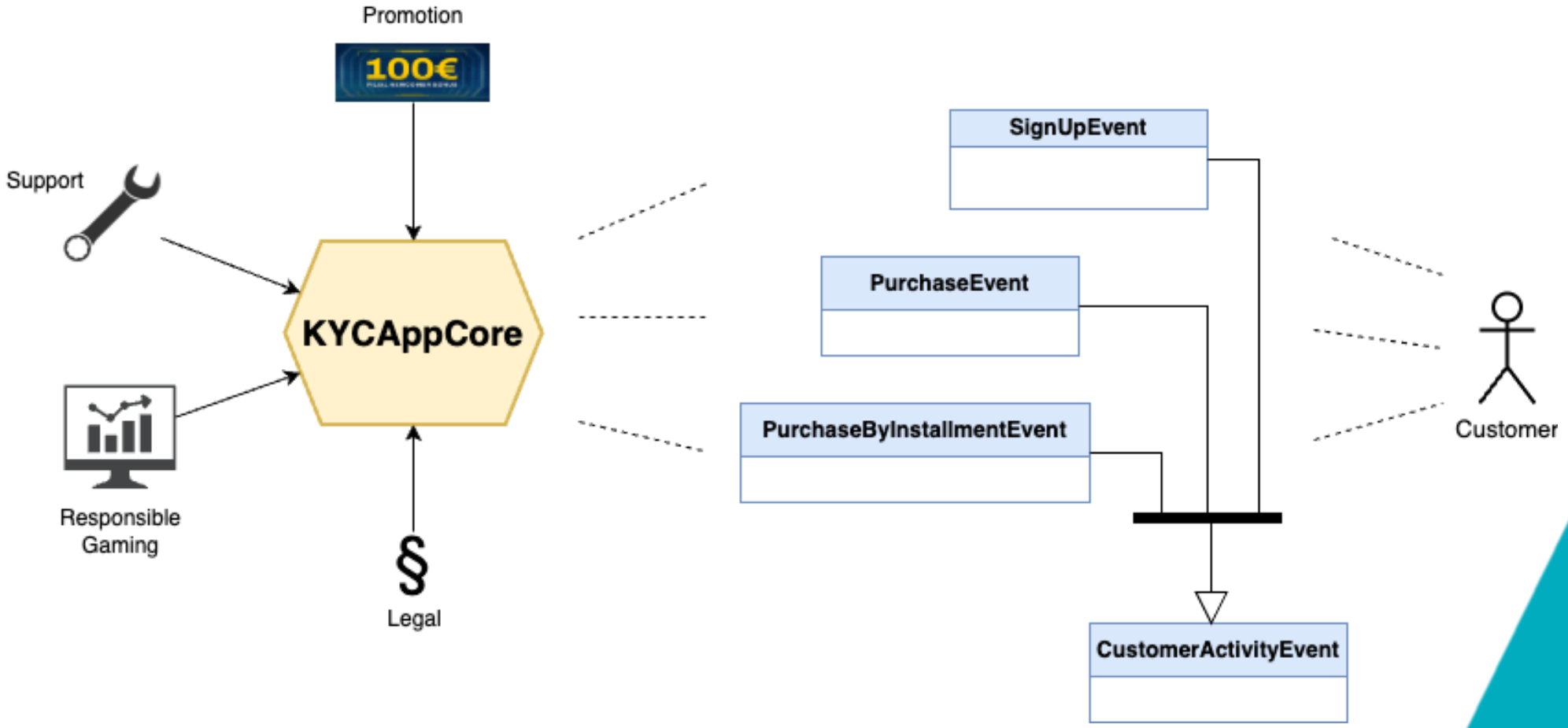


https://blog.codinghorror.com/the-ultimate-code-kata/

Link to Github

https://github.com/AndiKleini/KnowYourCustomer

KYC at Admiral Technologies



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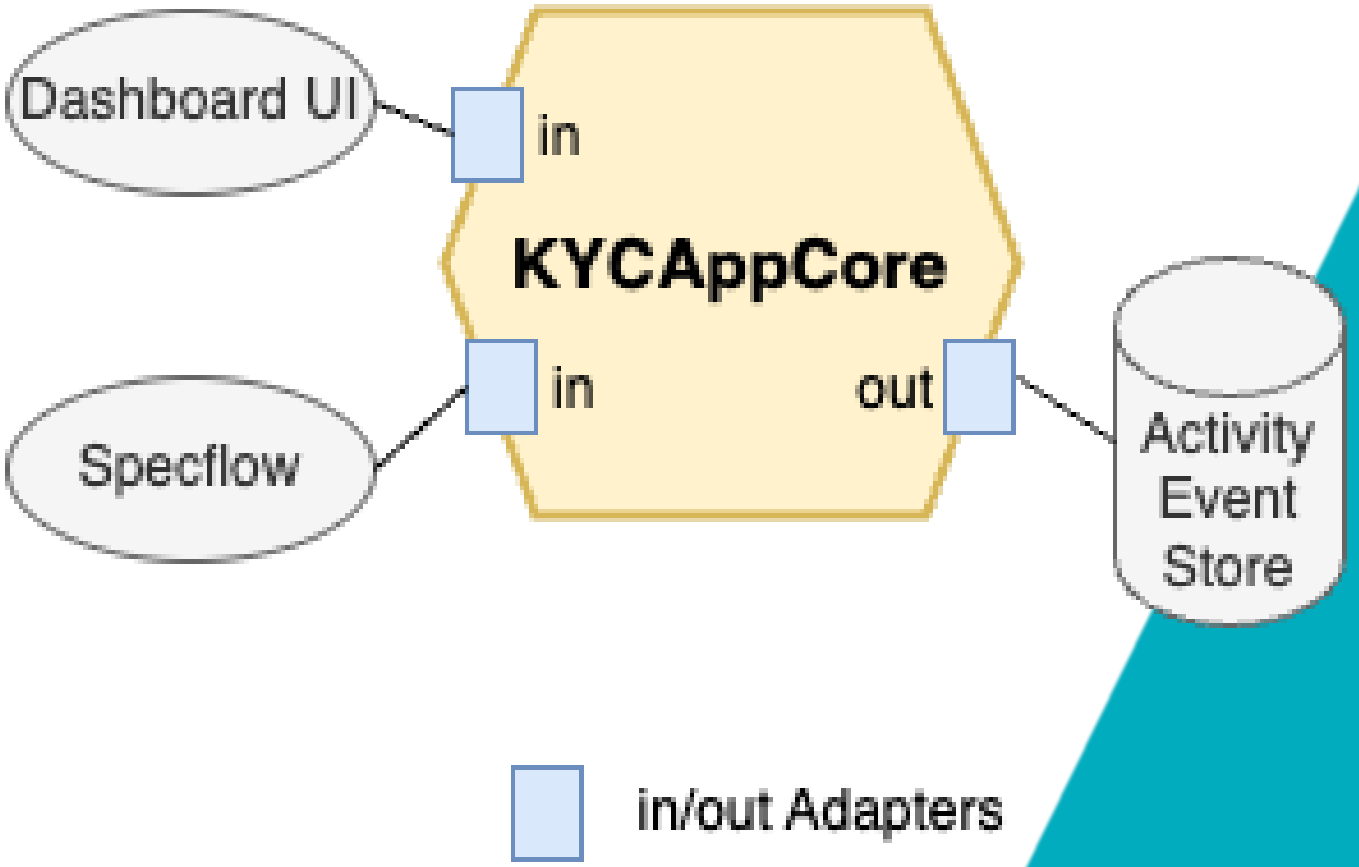
Ports and Adapters

- Dependencies are resolved from outside to inside (never vice versa)
- Separate business logic from infrastructure or external clients by im-plementing adapters for communication



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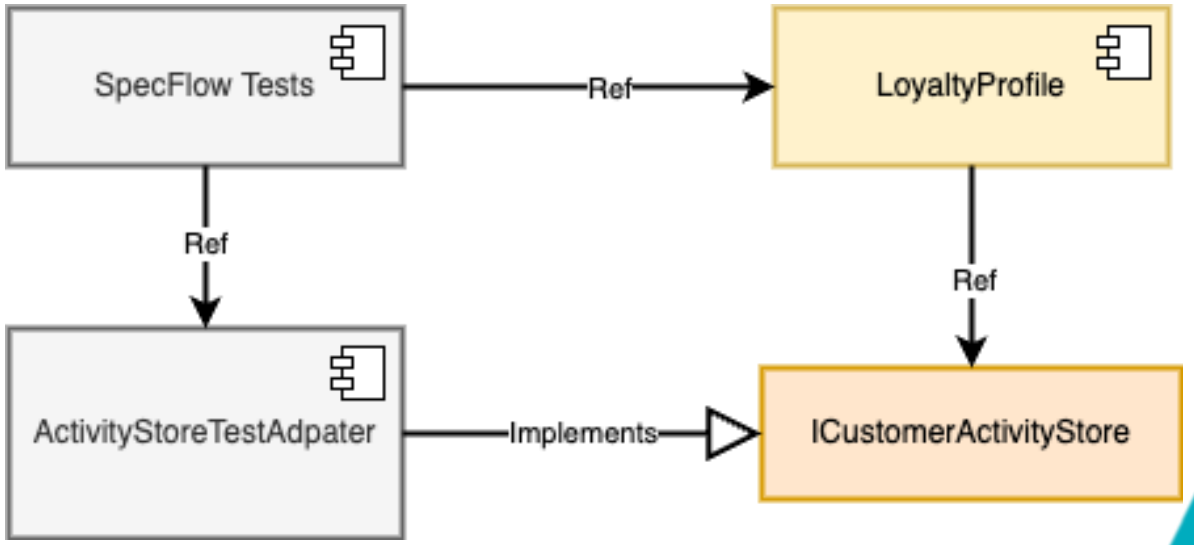
Dependencies

The loyalty profile (***Loyalty-Profile***) depends on the customer's activity store (***ICustomerActivityStore)*** for accessing (pulling) required activity events.

The store's behavior is mocked during test exe-cutions by some hand rolled test adapter (***ActivityStore-Testadpater***).



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Scenario (Gherkin)

```
Scenario: Layoality Profile evaluates to five
when registration happened exactly 366 days ago

    Given the customer signed up 366 days ago
    When the loyalty profile is evaluated
    Then the value for the loyalty points is 5
```

GIVEN

```
[Given(regex: "the customer signed up (.*) days ago")]
Andreas Kleinbichler *
public void TheCustomerSignedUpDaysAgo(int daysSinceSignUp)
{
    var activityStoreTestAdapter = new ActivityStoreTestAdapter();
    activityStoreTestAdapter.Register(
        new SignUpActivityEvent(
            CustomerId: 1,
            DateTime.Now.AddDays(-daysSinceSignUp)));
    scenarioContext.Add(ActivityStoreTestAdapterKey, activityStoreTestAdapter);
}
```

WHEN

```
[When(regex: @"the loyalty profile is evaluated")]
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public async Task  WhenTheLoyaltyProfileIsEvaluated()
{
    var loyaltyProfile = new LoyaltyProfile(
        activityStore: scenarioContext.Get<ActivityStoreTestAdapter>(ActivityStoreTestAdapterKey));
    await loyaltyProfile.GenerateProfile(customerId: 1);
    scenarioContext.Add(LoyaltyProfileUnderTestKey, loyaltyProfile);
}
```

THEN

```
[Then(regex: "the value for the loyalty points is (.*)")]
Andreas Kleinbichler
public void ThenTheValueForTheLoyaltyPointsIs(int expectedLoyaltyPoint)
{
    var loyaltyProfile = scenarioContext.Get<LoyaltyProfile>(LoyaltyProfileUnderTestKey);
    loyaltyProfile.Points.Should().Be(expectedLoyaltyPoint);
}
```

Run Tests

SpecFlow in 5 minutes

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The first user story

Story:

As a marketing manager I want to rank customers based on their loyalty,

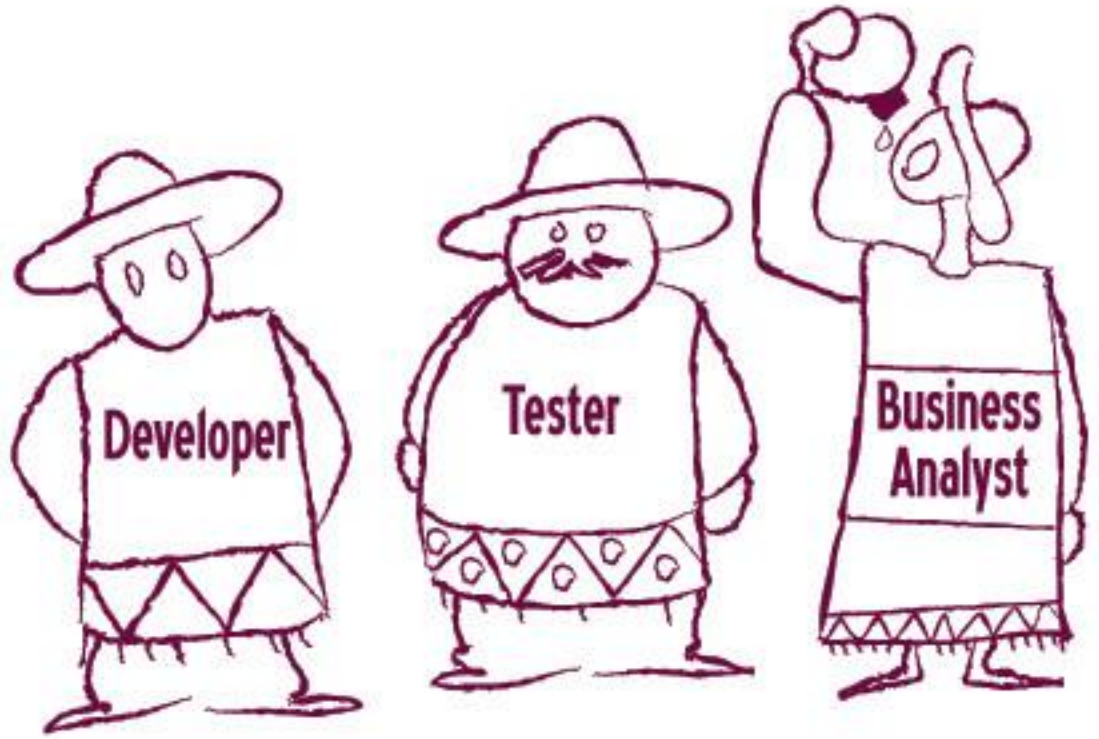
so that I can guarantee being fair with promotions.

Due to limited budget promotions must be restricted to the most loyal customers.

A proper ranking would support us in doing appropriate selections.

Example*: I have a budget of 3000 € and I want to promote 100 customers with 30 €. How should I choose ?*

A new feature is requested



https://www.linkedin.com/pulse/three-amigos-desired-team-behavior-format-shereen-samuel

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Add the specs

Scenario:

*Loyalty Profile points are evaluating to 5 + X * 2 when registration is longer ago than 365 days and purchases with the amount of X were made within the last 30 days*

Given the customer signed up ***<DaysPassedSinceSignUp>*** days ago
And the customer spent more than ***<MoneySpent>*** between ***<FromDaysAgo>*** and ***<ToDaysAgo>*** days ago
When the loyalty profile is evaluated
Then the value for the loyalty points is ***<ExpectedLoyaltyPoints>***

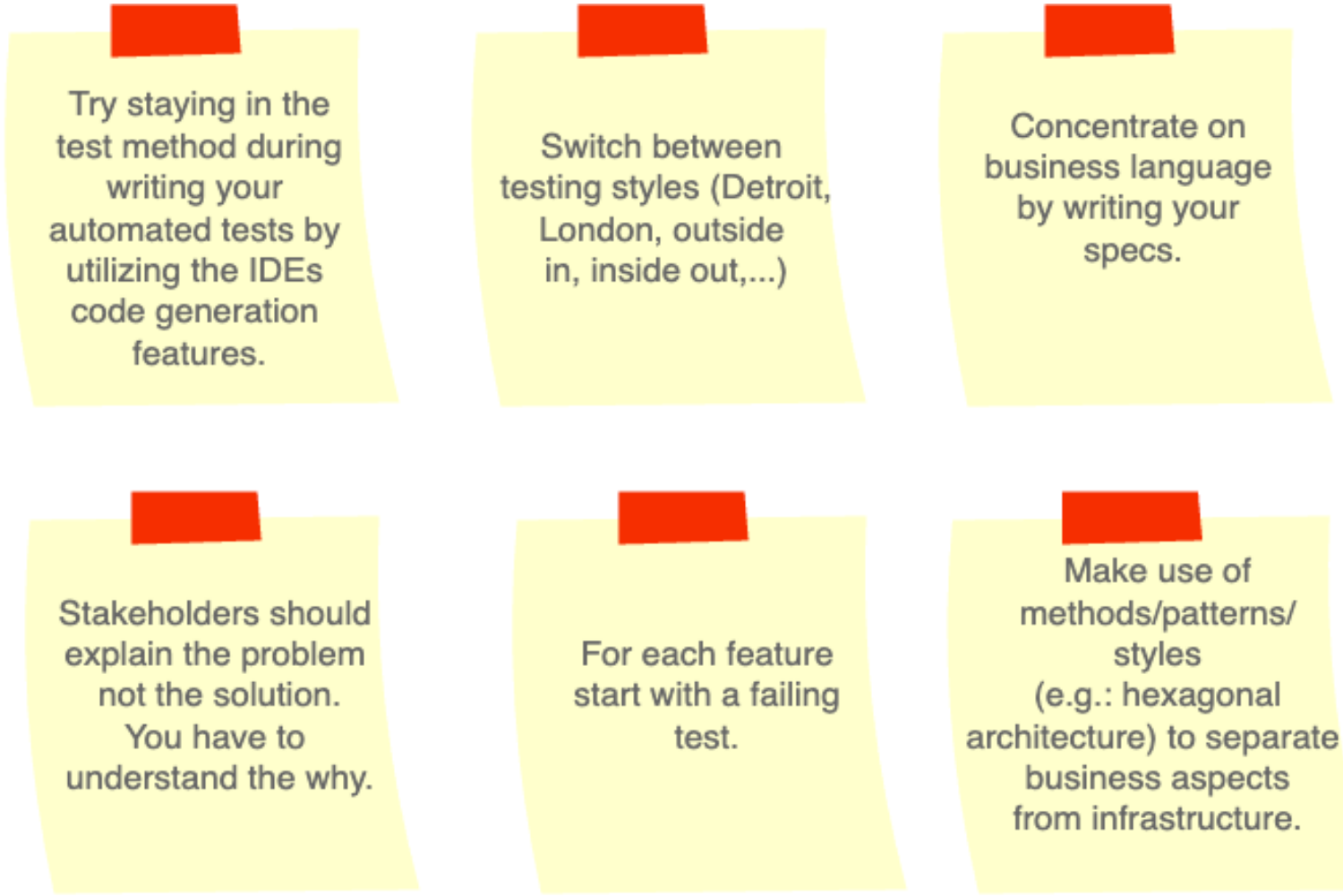
Examples:

DaysPassedSinceSignUp	MoneySpent	FromDaysAgo	ToDaysAgo	ExpectedLoyaltyPoints
500	5000	30	0	105

Coding part starts here

Happy Coding

Takeaways



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Any Questions ?

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