



You come with just an idea -
we make great software for you!

Trust
Teamwork
Transparency



UI Testing Automation in the context of BDD principles

Anton Orlov, Arcadia



As true as steel to your desire

About me

Anton Orlov

Senior QA Engineer at JSC “Arcadia Inc.”

5+ years of experience in software testing
ISTQB Certified

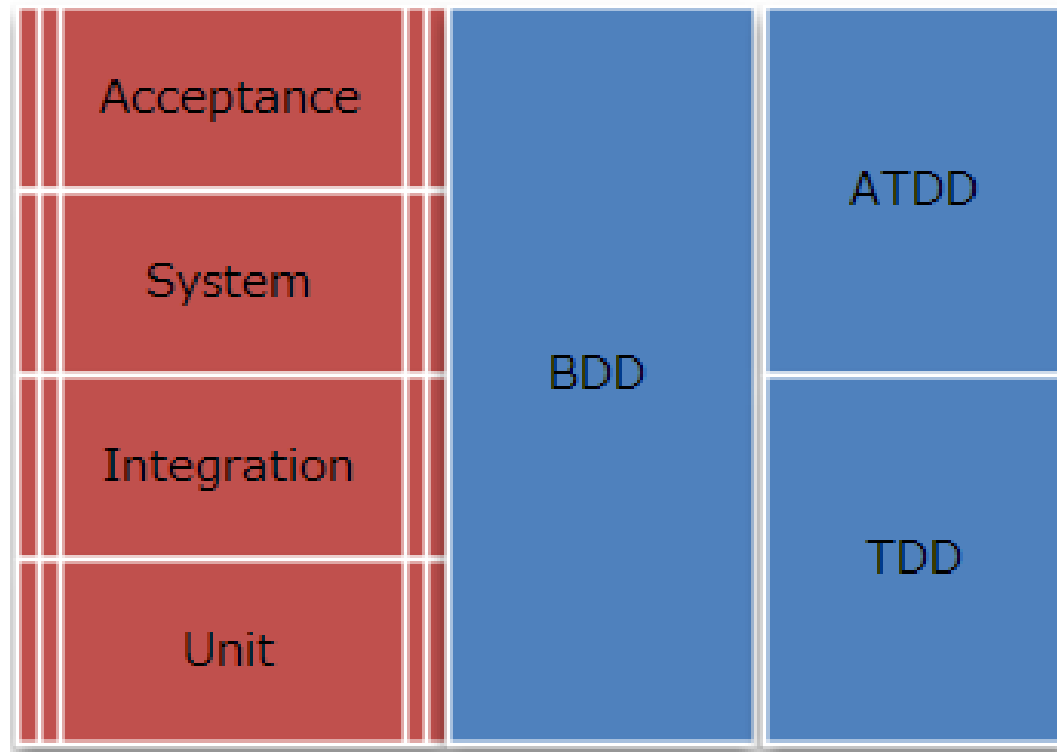
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Agile Practices & Testing levels

Out of scope:

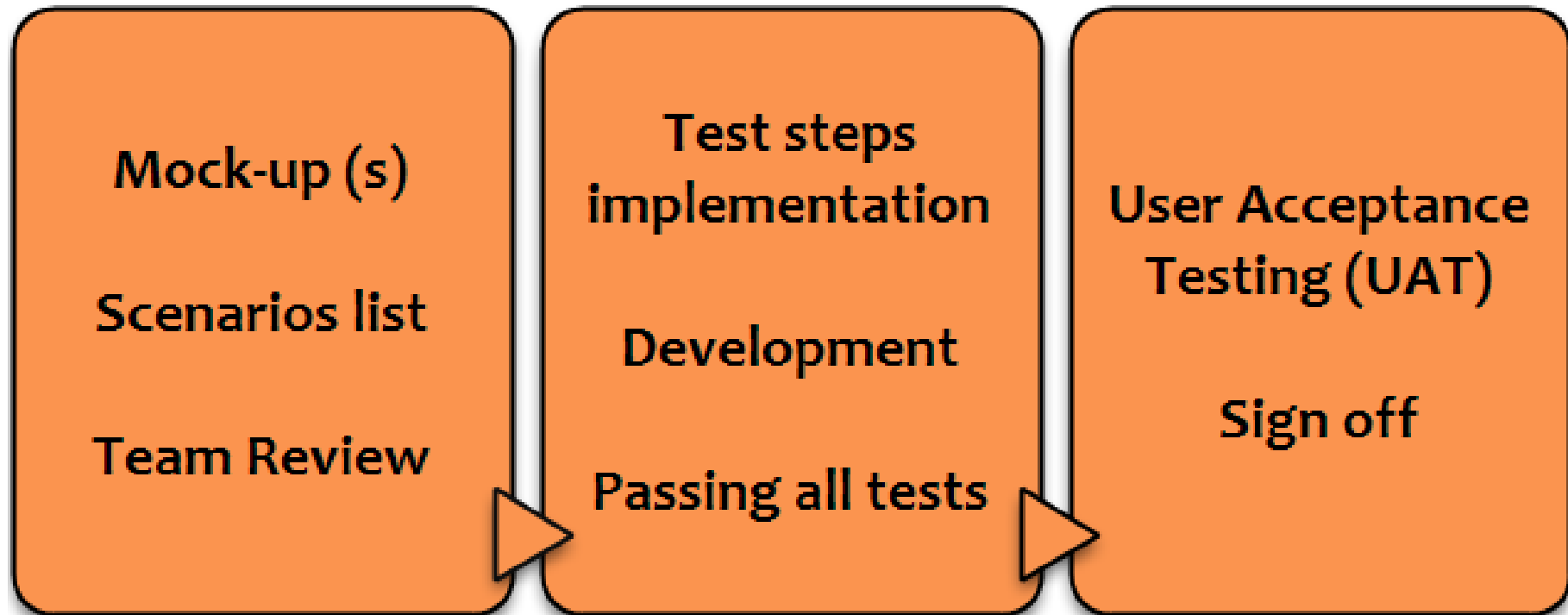
- Usability
- Security
- Performance
- Smoke
- Exploratory
- etc



Code meets customer expectations

Code meets developer expectations

User story workflow



BDD Tools

GWT syntax based


Cucumber


specflow
Cucumber for .NET


jbehave


easyb


NBhave

Scenarios

Business logic:

- **Given** that current user is logged in
- **When** user filtering by Country “Japan”
- **Then** user should be presented with the entries all containing “Japan” in Region column

UI + Business logic:

- **Given** that current user is logged in
- **When** user expand countries panel
- **And** user select “Japan” from countries list
- **And** user press “Apply filter” button
- **Then** table view should be refreshed
- **And** all entries should have “Japan” in Region column
- **And** countries panel should be expanded

The best solution – to have tests on all levels

Good scenarios

- Independent
- Configurable (tables/parameters)
- Feature/scenarios/steps should have concrete, detailed names
- One action = one step
- Same action = same step name

Specflow

Feature: SearchOptions

*In order to easily find the information I am looking for
As a subscriber
I want to be able to sort and filter search results*

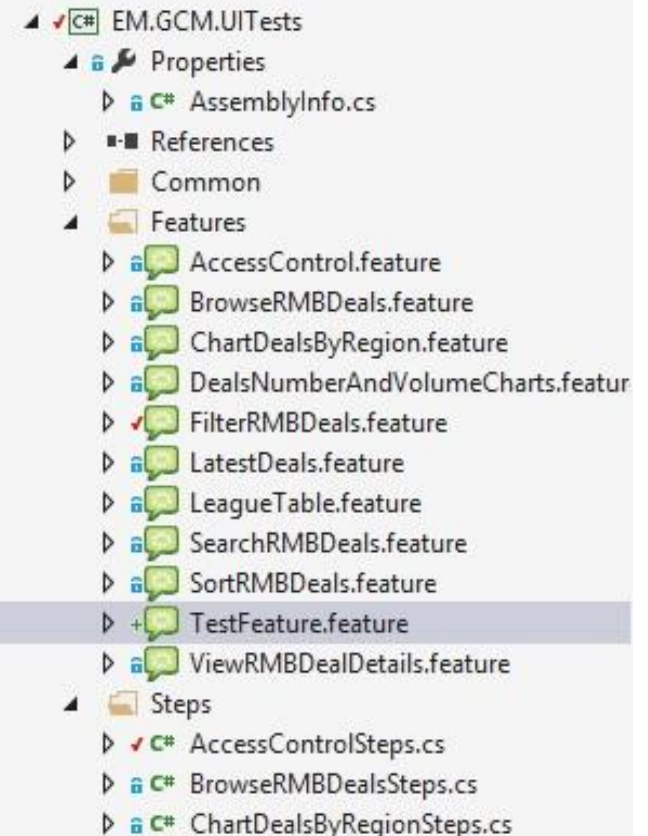
@userstory25 @regression

Scenario Outline: Combined filtering and sorting of search results

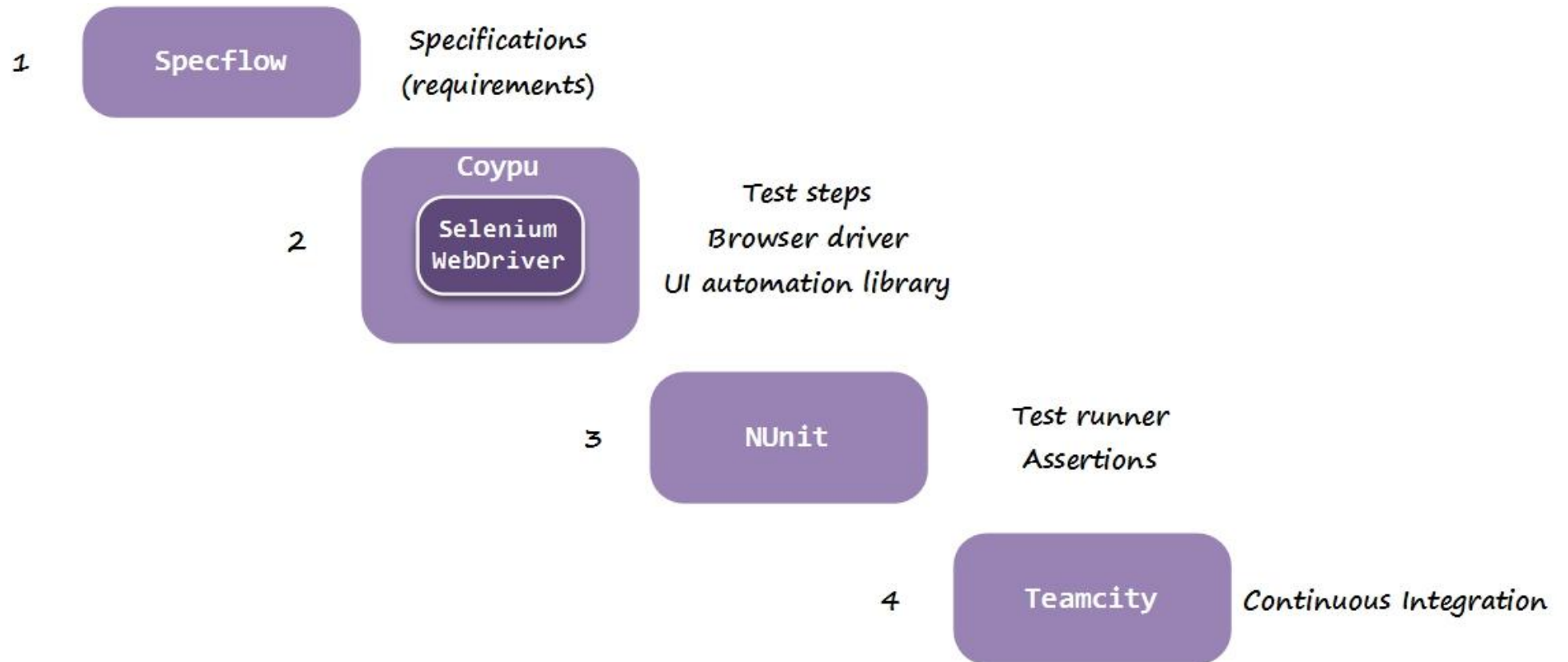
Given that I am on Search page of the website
When I have entered <search term> in Search field
And I press "Search" button
And I select <sorting> order for search results
And I select following Date Ranges dates:
| from | to |
| 01/Jun/2014 | 30/Jun/2014 |
Then I should see that all search results contains <search term>
And all search results should have published date:
| from | to |
| 02/Jul/2014 | 05/Jul/2014 |
And all search results have sorted by selected <sorting> order

Examples:

| | | |
|----------------|---------------|--|
| search term | sorting | |
| "China" | "Most recent" | |
| "test article" | "Oldest" | |



Implementation



Coypu

Events

| Event type | Date | Comments | |
|------------|---|---|---|
| Training | Q2/2015 | Teamcity, required devs | <input type="button" value="Edit"/> |
| Showcase | <input type="text" value="01/10/2014"/> or <input type="button" value="Quarter"/> | <input type="text" value="Event details here"/> | <input type="button" value="Save"/> <input type="button" value="Cancel"/> |

Add Event

Event type*

Comment

Date

Quarter

```
// go to the target page
Browser.Session.Visit("http://eventmanager.arcadia.spb.ru");
```

```
// select from dropdown by id
Browser.Session.Select("Conference").From("newEvent");
```

```
// put value to text field by name
Browser.Session.FillIn("newEventComment").With("SECR");
```

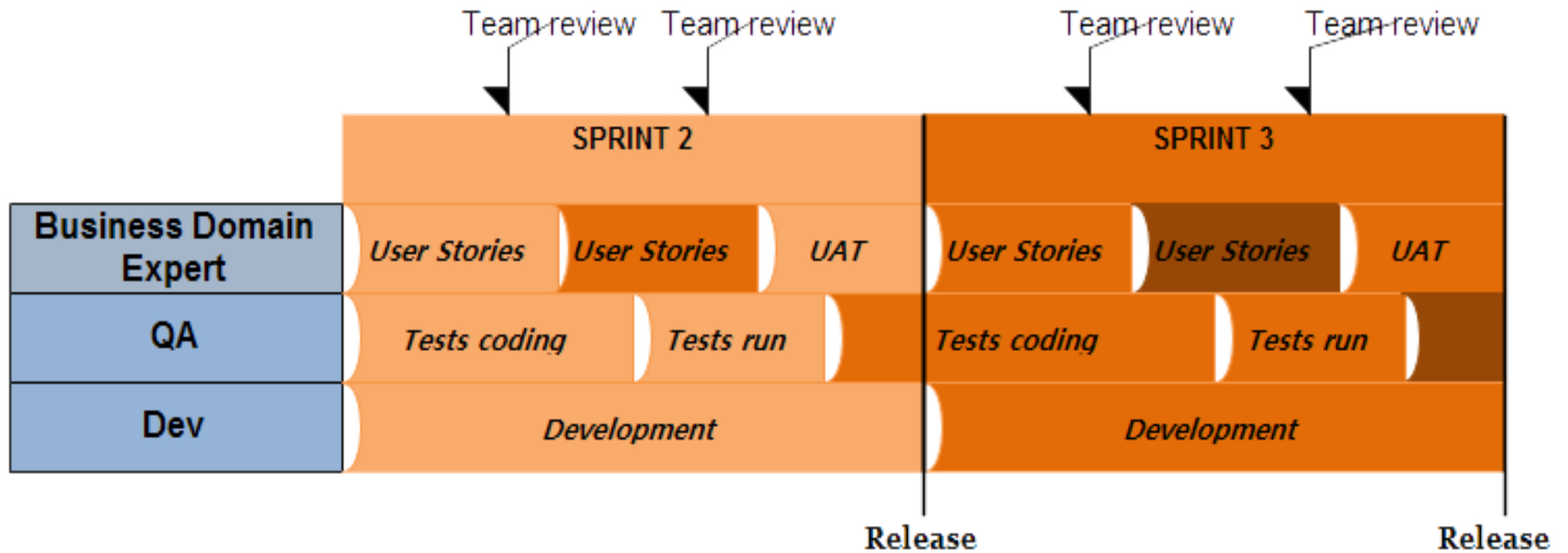
```
// select radio button by value
Browser.Session.Choose("Date");
```

```
// put value to text field by id
Browser.Session.FillIn("newEventDate").With("23/10/2014");
```

```
// click button by its label
Browser.Session.ClickButton("Add");
```

```
// verify the result
Assert.That(Common.EventTable.FindEvent("Conference",
"23/10/2014", "SECR") == true, "Created event not added
to the page");
```

Scrum & BDD



Pros and Cons



- Live documentation
- High rate of user stories acceptance within the sprint
- Suitable to use for regression testing
- Communication bridge
- Preventing bugs



- Requires intensive business part involvement
- Not for any project
- Unit tests still needed
- Additional activities

More to read

“Specification by Example” by Gojko Adzic

“Introducing BDD” by Dan North

<http://www.specflow.org/>

<https://github.com/featurist/coypu>

<http://dannorth.net>

Q & A