



# PAGE ELEMENTS JDI

29 JAN 2018



## □ UI Objects. JDI

- JDI. Composite elements
- JDI Settings
- JDI for any UI

- **JDI ?**
- **Simple Test**
- **UI Objects**
- **Simple Elements**
- **Complex Elements**



# JDI?



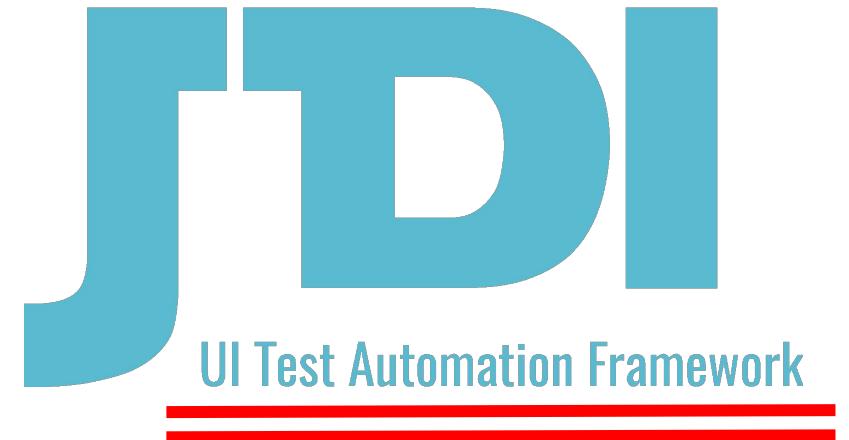
<https://github.com/epam/JDI>



<http://jdi.epam.com/>



[https://vk.com/jdi\\_framework](https://vk.com/jdi_framework)



## README

## Maven

```
<dependency>
  <groupId>com.epam.jdi</groupId>
  <artifactId>jdi-uitest-web</artifactId>
  <version>1.0.39</version>
</dependency>
```

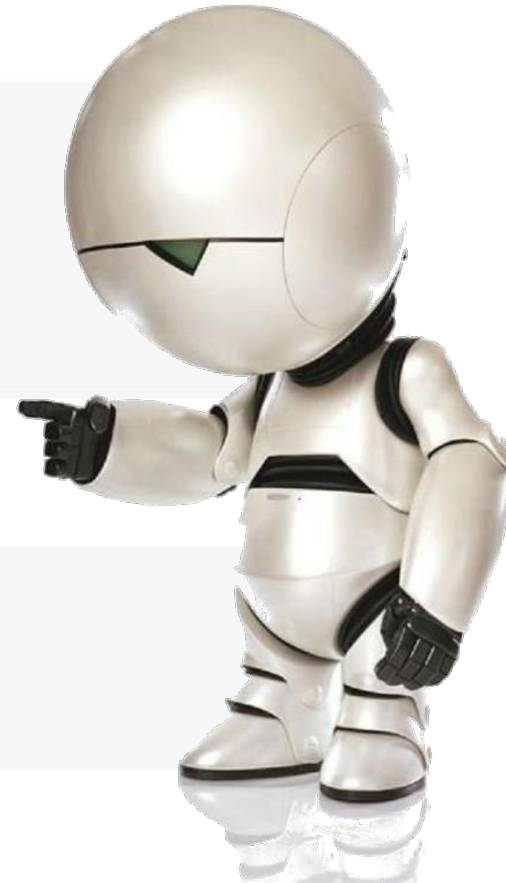
**DON'T PANIC**

## Gradle

```
dependencies {
  testCompile 'com.epam.jdi:jdi-uitest-web:1.0.39'
}
```

## IVY

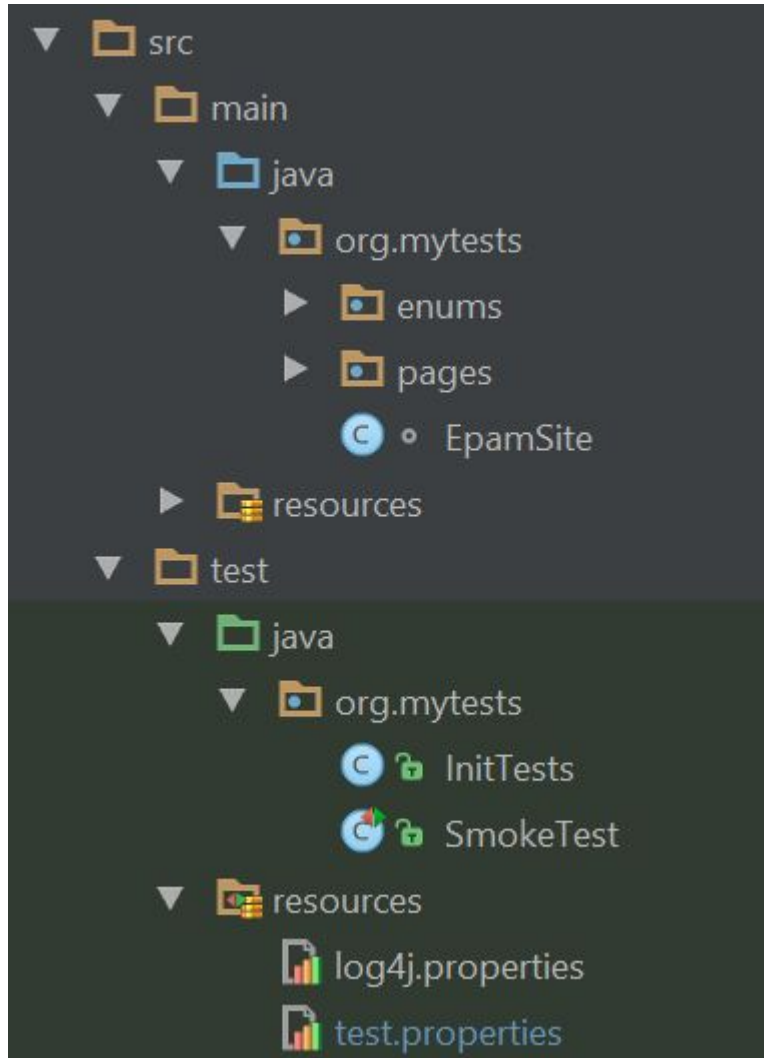
```
<dependencies>
  <dependency org="com.epam.jdi" name="jdi-uitest-web" rev="1.0.39"/>
</dependencies>
</ivy-module>
```



First step: just download this **simplest Java example** and run test

# DEMO: TEST PROJECT FROM SCRATCH





- test.properties
- log properties
- ui objects
- test init
- tests



```
ProductPage.productType.select(«jacket»);  
ProductPage.price.select(«500$»);  
ProductPage.colors.check(«black», «white»);  
Assert.isTrue(ProductPage.label.getText(), «Armani Jacket»)
```

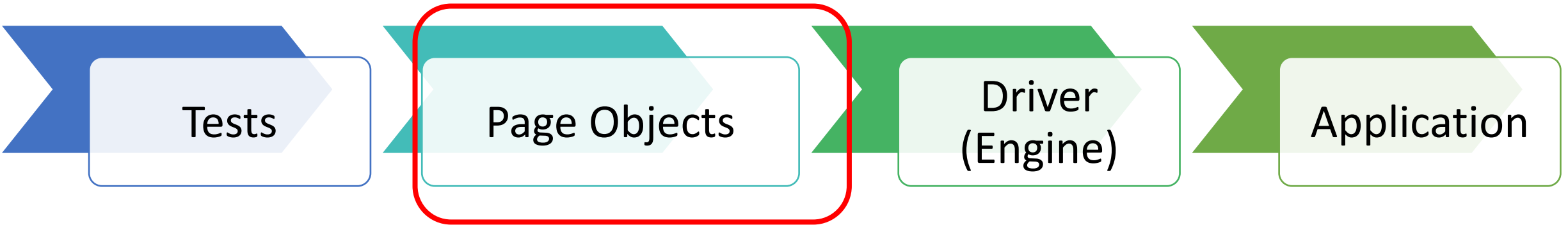
```
LoginPage.open();  
LoginPage.loginForm.login(admin);  
SearchPage.search.find(«Cup»);  
Assert.AreEqual(ResultsPage.products.count(), expected);
```





# PAGE ELEMENTS





## ELEMENTS

```
private WebElement UserName;  
private WebElement Password;  
private WebElement LoginButton;
```

### • ACTIONS

- EnterUserName(String name);
- EnterPassword(String name);
- ClickLoginButton();

### • BUSINESS ACTIONS

- Login(User user)

## ELEMENTS

```
public TextField UserName;  
public TextField Password;  
public Button LoginButton;
```

### • ACTIONS

- ---

### • BUSINESS ACTIONS

- Login(User user)

## ELEMENT

```
public DropDown UserStatus;
```

### • ACTIONS

- Select(string option)
- bool IsSelected()
- List<string> AllOptions()
- string GetValue()

- ❖ Simple
- ❖ Complex
- ❖ Composite

Send

DropDownArrowStyle=Hide

New Orleans

- ☐ New York City
- ☐ Newark, New Jersey
- ☒ New Orleans
- ☐ Newton, Kansas

Powered by *Highslide JS*

### Order product

Product  
**Тестова статийка**

This is a silly test article. Who would ever think of buying it?...

Quantity: \*

Your name: \*

Your e-mail: \*

Your phone:

Your address: \*

Send Cancel



# **SIMPLE ELEMENTS**



@FindBy (css=".description")

public **Text** description;

public **Button** submit;

public **Label** productName;

public **Link** followMe;

public **TextField** password;

public **TextArea** abuse;

public **CheckBox** rememberMe;

public **DatePicker** date;

public **FileInput** upload;

public **Image** photo;

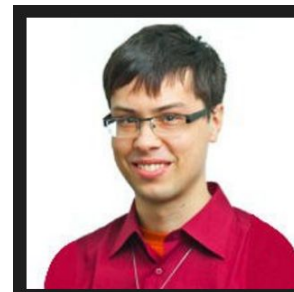
SUBMIT

☐ Software Engineering

## NEWS

Company increases ability to serve regional clients and benefits from local, highly-skilled talent.

Keywords (optional):



[Read more »](#)

4/5/2011	April 2011						
	M	T	W	T	F	S	S
14	28	29	30	31	1	2	3
15	4	5	6	7	8	9	10
16	11	12	13	14	15	16	17
17	18	19	20	21	22	23	24
18	25	26	27	28	29	30	1
19	2	3	4	5	6	7	8

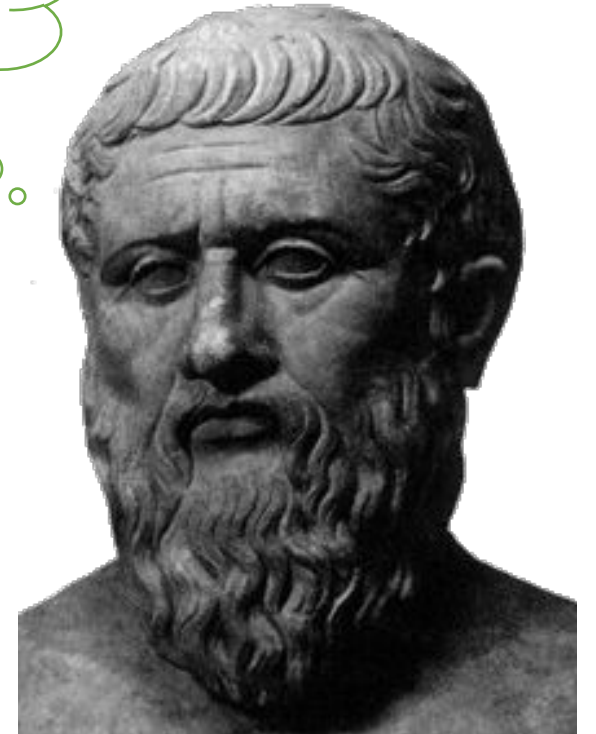
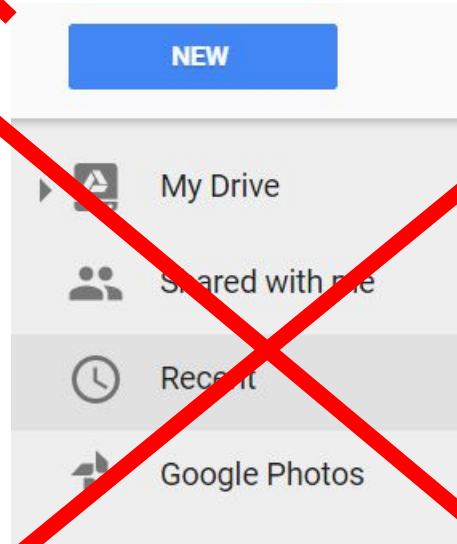
```
@FindBy (css=".btn")  
public Button submit;  
  
public Button submit =  
    new Button(By.css(".btn"));
```

```
@FindBy (css=".btn")  
public IButton submit;
```

```
@FindBy (css=".btn")  
@FindBy (xpath="//button")  
@FindBy (id="button-id")  
@FindBy (name="button")
```

```
@JFindBy (text="Submit")  
@JFindBy (model="btn-model")  
@JFindBy (binding="btn")  
@JFindBy (repeater="r-button")
```





No application but you can write UI Objects (Page Objects )

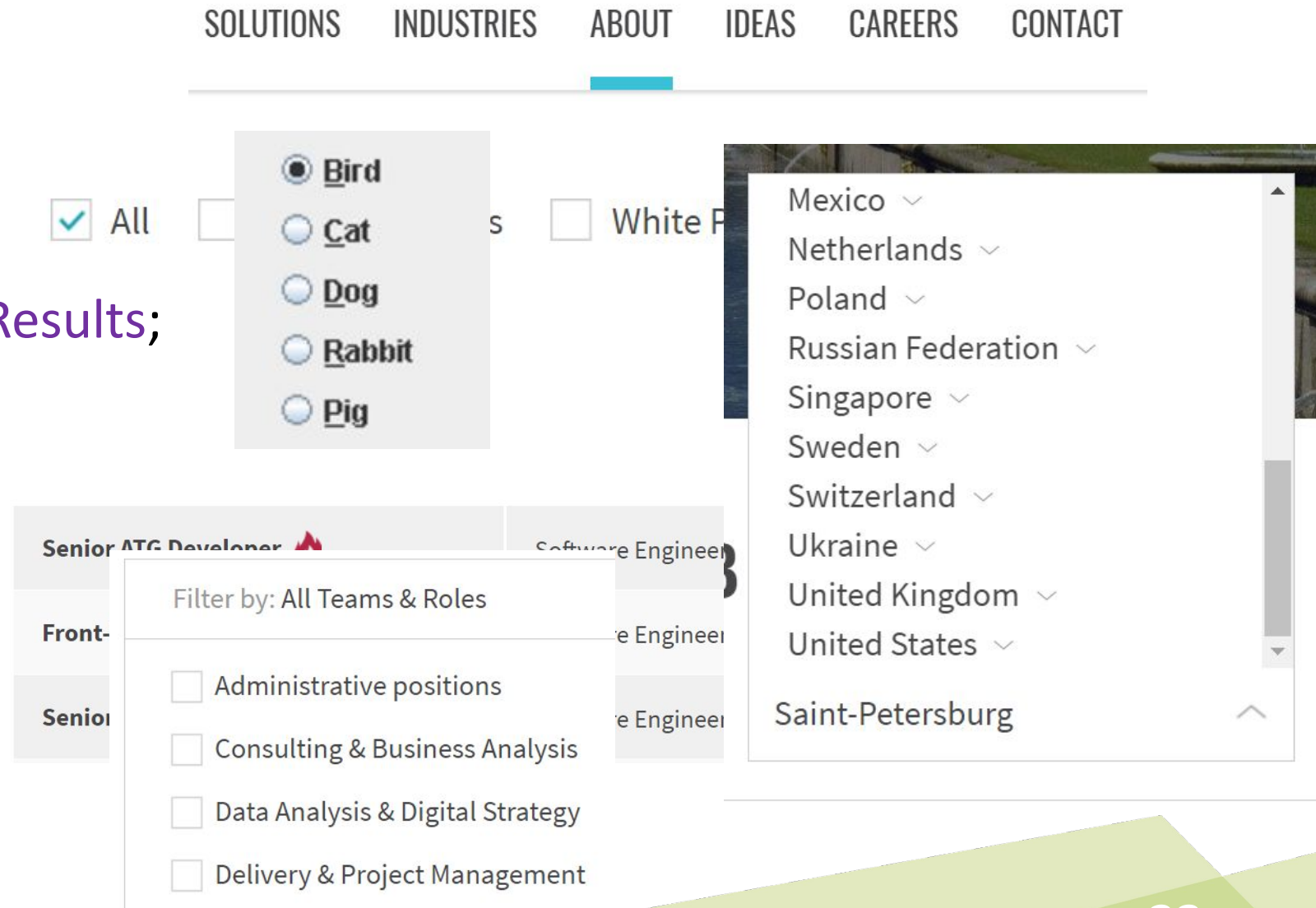






# **COMPLEX ELEMENTS**

public **DropDown** colors;  
public **Checklist** settings;  
public **ComboBox** tags;  
public **DropList** shirtSizes;  
public **List<Element>** searchResults;  
public **Elements** reviews;  
public **Table** products;  
public **Menu** mainMenu;  
public **Tabs** areas;  
public **Selector** vote;  
public **RadioButtons** rating;  
public **TextList** chat;



```
@JDropdown (  
    root = @FindBy(css = ".colors"),  
    value = @FindBy(css = ".value"),  
    elementByName = @FindBy(tagName = "li"))  
public Dropdown colors;
```

```
@JTable(  
    root = @FindBy (css = ".offers"),  
    row = @FindBy (xpath = ".//li[%s]//div"),  
    column = @FindBy (xpath = ".//li//div[%s]"),  
    header = {"ID", "Title", "Apply"} )  
public Table offers;
```



```
@FindBy(css = ".colors")  
public Dropdown colors;
```

```
@FindBy(css = ".table")  
public Table offers;
```

```
@FindBy(css = ".menu li")  
public Menu navigation;
```

```
@FindBy(css = ".menu ul")  
public Menu navigation;
```

```
@FindBy(xpath = "//*[@class='menu']//li[text()='%s']")  
public Menu navigation;
```



# USING ENUMS

```
public Menu<Options> topMenu;
```

```
public enum Options {  
    Home, About, Contacts }
```

```
topMenu.select(About$.About);
```

```
public Dropdown<Colors> colors;
```

```
public Tabs<Areas> areas;
```

```
public Checklist<Settings> settings;
```

```
public ComboBox<Tags> tags;
```

```
public DropList<Sizes> shirtSizes;
```

```
public Selector<VoteOptions> vote;
```

```
public RadioButtons<Ratings> rating;
```

```
public enum Options {  
    Home('option-1'),  
    About('option-3'),
```

```
    public String value;  
    Options (String value) { this.value = value; }  
    @Override  
    public String toString() { return value; }  
}
```



- Code readability
- Clear behavior
- Union of all element's locators
- Union of element and its actions
- Detailed logging

**Text** Description;

**Button** Submit;

**Label** ProductName;

**Link** FollowMe;

**TextField** Password;

**TextArea** Abuse;

**CheckBox** RememberMe;

**DatePicker** Date;

**FileInput** Upload;

**Image** Photo;

**WebElement** Description;

**WebElement** SubmitButton;

**WebElement** ProductName;

**WebElement** FollowMeLink;

**WebElement** PasswordField;

**WebElement** Abuse;

**WebElement** RememberMe;

**WebElement** DatePicker;

**WebElement** Upload;

**WebElement** Photo;

```
@JDropdown (root    = @FindBy(css = ".colors"),  
            value     = @FindBy(css = ".value"),  
            elementByName = @FindBy(tagName = "li"))
```

Dropdown Colors;

-----

```
@FindBy(css = ".colors .value")  
WebElement ColorsValue;  
@FindBy(css = ".colors li")  
List<WebElement> ColorsList;  
public string getColor() {  
    return ColorsValue.getText();  
}
```

```
public void selectColor(string colorName) {  
    ColorsValue.Click();  
    for (WebElement color : ColorsList)  
        if (color.getText().Equals(colorName) {  
            color.Click();  
            return;  
        }  
}
```



@FindBy(id = "trades")

public Table Colors;

---

```
@FindBy(css = "")
private List<WebElement> resultsColHeaders;
@FindBy(css = "")
private List<WebElement> resultsRowsHeaders;
@FindBy(css = "")
private List<WebElement> resultsCellsHeaders;
@FindBy(css = "")
private List<WebElement> resultsColumn;
@FindBy(css = "")
private List<WebElement> resultsRow;
```

```
ICell cell(Column column, Row row) { }
ICell cell(String columnName, String rowName) { }
ICell cell(int columnIndex, int rowIndex) { }
List<ICell> cells(String value) { }
List<ICell> cellsMatch(String regex) { }
ICell cell(String value) { }
ICell cellMatch(String regex) { }
MapArray<String, MapArray<String, ICell>> rows(String... colNameValues) { }
MapArray<String, MapArray<String, ICell>> columns(String... rowNameValues) { }
boolean waitValue(String value, Row row) { }
boolean waitValue(String value, Column column) { }
boolean isEmpty() { }
boolean waitHaveRows() { }
boolean waitRows(int count) { }
ICell cell(String value, Row row) { }
ICell cell(String value, Column column) { }
List<ICell> cellsMatch(String regex, Row row) { }
List<ICell> cellsMatch(String regex, Column column) { }
MapArray<String, ICell> row(String value, Column column) { }
MapArray<String, ICell> column(String value, Row row) { }
MapArray<String, ICell> row(int rowNum) { }
MapArray<String, ICell> row(String rowName) { }
List<String> rowValue(int colNum) { }
List<String> rowValue(String colName) { }
```



- UI Objects. JDI
- **JDI. Composite elements**
- **JDI Settings**
- **JDI for any UI**



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