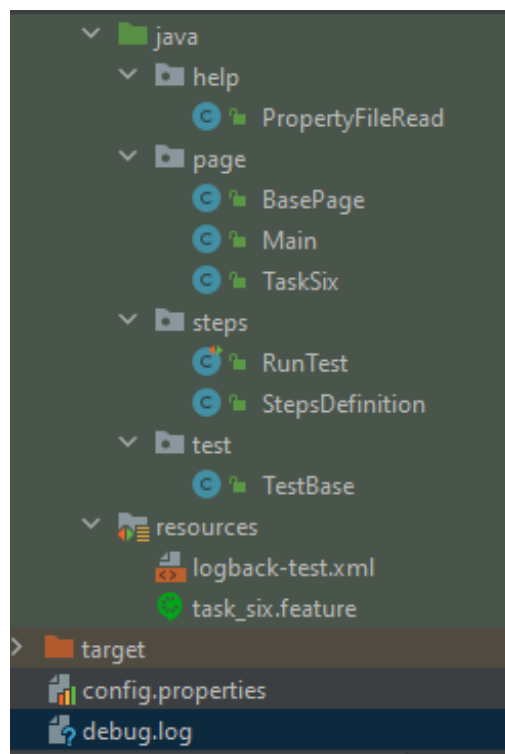


11. Java_QA (Cucumber)

- Использование оболочки Cucumber (Gerkin)
- Запись логов
- Создание Cucumber репортов
- Скриншоты на заваленные тесты
- Хранение данных в properties файлах

Сценарий : Обёртка ранее созданного фреймворка на основе Selenium в Cucumber

Структура проекта:



config.properties: содержит ссылку на сайт

```
url=https://testingcup.pgs-soft.com/
```

page.Class Main: (чтение веб-адреса, и запись в переменную, методы перехода на главную страницу, и выбора задания)

```
String SITE_URL = new PropertyFileRead().getProp("url");
```

```

public Main(WebDriver driver) {
    super(driver);
}

public Main goTo() {
    driver.get(SITE_URL);
    return this;
}

public Main chooseTask(String taskNum) {
    click(By.xpath("//h2[.='Задание " + taskNum + "']"));
    return this;
}
}

```

help.Class PropertyFileRead: (чтение данных из property файла, класс Properties, объект Logger)

```

public class PropertyFileRead {
    private Properties prop = new Properties();
    private static final Logger LOG =
        LoggerFactory.getLogger(PropertyFileRead.class);

    public String getProp(String properties) {
        InputStream input = null;
        try {
            input = new FileInputStream("config.properties");
        } catch (FileNotFoundException e) {
            LOG.error(String.valueOf(e));
        }
        try {
            prop.load(input);
        } catch (IOException e) {
            LOG.error(String.valueOf(e));
        }
        return prop.getProperty(properties);
    }
}

```

page.Class BasePage: (общие методы работы для работы со страницей, ввод данных, проверка видимости элемента, клик на элемент)

```

public class BasePage {
    public WebDriver driver;
    public WebDriverWait wait;

    public BasePage(WebDriver driver) {
        this.driver = driver;
        wait = new WebDriverWait(driver, 15);
        return;
    }

    //wait wrapper method
    public void waitVisibility(By elementBy) {
        // expected conditions -- ожидаемые условия
        wait.until(ExpectedConditions.visibilityOfAllElementsLocatedBy(elementBy));
    }
}

```

```

//click method
public void click(By elementBy) {
    waitVisibility(elementBy);
    driver.findElement(elementBy).click();
}

//isElementDisplayed
public void isElementDisplayed(By elementBy) {
    waitVisibility(elementBy);
    Assert.assertTrue(driver.findElement(elementBy).isDisplayed());
}

public void writeText(By elementBy, String text) {
    waitVisibility(elementBy);
    WebElement element = driver.findElement(elementBy);
    element.clear();
    element.sendKeys(text);
}

public void isElementNotDisplayed(By elementBy) {
    Assert.assertFalse(driver.findElements(elementBy).size() > 0);
}

```

test.Class TestBase: (содержит методы инициализации и закрытия веб-драйвера)

pom.xml: (добавление зависимостей Cucumber, и настройка плагина для репортов)

```

<plugin>
    <groupId>net.masterthought</groupId>
    <artifactId>maven-cucumber-reporting</artifactId>
    <version>3.20.0</version>
    <executions>
        <execution>
            <id>execution</id>
            <phase>verify</phase>
            <goals>
                <goal>generate</goal>
            </goals>
            <configuration>
                <projectName>Linar made a report </projectName>
                <!-- output directory for the generated report -->
<outputDirectory>${project.build.directory}</outputDirectory>
                <!-- optional, defaults to outputDirectory if not
specified -->
<inputDirectory>${project.build.directory}</inputDirectory>
                <jsonFiles>
                    <!-- supports wildcard or name pattern -->
                    <param>**/*.json</param>
                </jsonFiles>
                <!-- optional, defaults to outputDirectory if not
specified -->
<classificationDirectory>${project.build.directory}</classificationDirectory>
                <classificationFiles>

```

```

        <!-- supports wildcard or name pattern -->
        <param>sample.properties</param>
        <param>other.properties</param>
    </classificationFiles>
    <parallelTesting>false</parallelTesting>
    <checkBuildResult>true</checkBuildResult>
</configuration>
</execution>
</executions>
</plugin>
</plugins>
</build>

<dependencies>
    <dependency>
        <groupId>info.cukes</groupId>
        <artifactId>cucumber-junit</artifactId>
        <version>1.2.5</version>
    </dependency>

    <dependency>
        <groupId>info.cukes</groupId>
        <artifactId>cucumber-java</artifactId>
        <version>1.2.5</version>
        <scope>test</scope>
    </dependency>
</dependencies>

```

Сценарий работы: тестирование страницы №6, попытка авторизации с разными данными для входа.

Структура класса page.TaskSix: (методы ввода логина и пароля, кнопка входа, и проверка)

```

public class TaskSix extends BasePage {
    public TaskSix(WebDriver driver) {
        super(driver);
    }

    public TaskSix fillInLogin(String login) {
        writeText(By.id("LoginForm_username"), login);
        return this;
    }

    public TaskSix fillInPass(String pass) {
        writeText(By.name("LoginForm_password"), pass);
        return this;
    }

    public TaskSix logBtnClick() {
        click(By.cssSelector(".btn-default.btn"));
        return this;
    }

    public TaskSix isLoginCorrect() {
        isElementDisplayed(By.linkText("Pobierz plik"));
        return this;
    }
}

```

```

public TaskSix checkAllElementsOnPagePresent() {
    isElementDisplayed(By.id("LoginForm_username"));
    isElementDisplayed(By.name("LoginForm_password"));
    isElementDisplayed(By.cssSelector(".btn-default.btn"));
    return this;
}

public TaskSix isLoginWrong() {
    isElementNotDisplayed(By.linkText("Pobierz plik"));
    return this;
}

```

Описание сценариев, файл task_six.feature: (данные для входа в таблице с полями login, pass)

Feature: I want to test task six

Scenario: I want to login with correct credentials

Given I go to main page

When I select "6" task

And I login as "tester" with password "123-xyz"

Then I should see the link to download file

Scenario Outline: I want to login with wrong credentials

Given I go to main page

When I select "6" task

And I login as "<login>" with password "<pass>"

Then I should not see the link to download file

Examples:

login	pass
bugubugi	
	123456
tester	123-xyz

steps.Class StepsDefinition: (связывание сценариев с методами)

Сценарий @Before, инициализация драйвера и запись лога:

```

private static final Logger LOG =
    LoggerFactory.getLogger(StepsDefinition.class);

@Before
public void initialization(Scenario scenario) {
    start();
    LOG.info("Scenario " + scenario.getName() + " is started." );
}

```

Сценарий @After, закрытие драйвера и скриншот в случае если тест завален:

```

@After
public void tearDown(Scenario scenario) throws IOException {
    if (!scenario.isFailed()) {
        LOG.info("Scenario successfully passed: " + scenario.getName());
    } else {
        File file = new File("target");
    }
}

```

```

        if (!file.exists()) {
            file.mkdirs();
        }
        File screenshotFile = ((TakesScreenshot)
driver).getScreenshotAs(OutputType.FILE);
        String currentTime = new
SimpleDateFormat("dd_MM_yyyy_hh_mm").format(new Date());
        String screenName = "target/" + "screenshots/" + currentTime + "/" +
scenario.getName() + ".png";
        File targetFile = new File(screenName);
        FileUtils.copyFile(screenshotFile, targetFile);
        LOG.info("Scenario is failed: " + scenario.getName());
        LOG.info("Screenshot " + screenName + " was created");
    }
    finish();
}

```

Сценарий тестирования:

```

@Given("I go to main page")
public void iGoToMainPage() {
    main.goTo();
}

@When("^I select \"([^\"]*)\" task$")
public void iSelectTask(String taskNumber) {
    main.chooseTask(taskNumber);
}

@And("^I login as \"([^\"]*)\" with password \"([^\"]*)\"$")
public void iLoginAsWithPassword(String login, String pass) {
    taskSix.checkAllElementsOnPagePresent()
        .fillInLogin(login)
        .fillInPass(pass)
        .logBtnClick();
}

@Then("I should (see|not see) the link to download file$")
public void iShouldSeeTheLinkToDownloadFile(String visibility) {
    if (visibility.equals("see")) {
        taskSix.isLoginCorrect();
    } else {
        taskSix.isLoginWrong();
    }
}

```

steps.Class RunTest: (запуск кейса)

```

@RunWith(Cucumber.class)
@CucumberOptions(
    features = {"src/test/resources"},
    glue = {"steps"},
    plugin = {"pretty", "json:target/cucumber-report.json"}
)
public class RunTest {
}

```

Автоматическая генерация репорта:

Feature Report

	Steps						Scenarios			Features	
Feature	Passed	Failed	Skipped	Pending	Undefined	Total	Passed	Failed	Total	Duration	Status
I want to test task six	15	1	0	0	0	16	3	1	4	26.183	Failed



Feature	I want to test task six	
Scenario	I want to login with correct credentials >	4.350
Scenario Outline	I want to login wit wrong credentials v	8.212
Hooks	>	
Steps	v	
Given	I go to main page	1.508
When	I select "6" task	0.641
And	I login as "bugubugi" with password ""	1.004
Then	I should not see the link to download file	5.058
Hooks	>	
Scenario Outline	I want to login wit wrong credentials >	8.214
Scenario Outline	I want to login wit wrong credentials v	5.406
Hooks	>	
Steps	>	