



CAR RENTING

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POINTS TO BE COVERED



- Purpose of the Application and its Architecture.
- Brief description of the process using SCRUM.
- Description of the use of YouTrack for Scrum and the integration with GitHub.
- Description of the use of Maven.
- About Unit, Coverage and Performance Testing.
- Use of Jenkins and screenshot showing its use.
- Use of Doxygen and SLF4j. GitHub Pages.
- Events and Difficulties.

Language
English English English

START HERE

Welcome to Car-Renting

Select a garage of origin

Select a garage of destination

Select starting date

Select booking date

Return on garage of origin

Next

Purpose of the Application and its Architecture

PURPOSE

For STAFF:

- Admin:
 - View rents
 - Manage cars
 - Manage garages
 - View statistics of the renting services
- Employee:
 - View rents

For clients:

- Rent cars



ARCHITECTURE

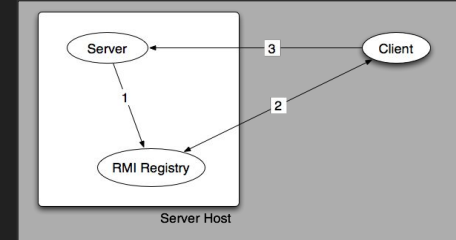
Client/Server architecture with RMI

Client side:

- Controller
- GUI

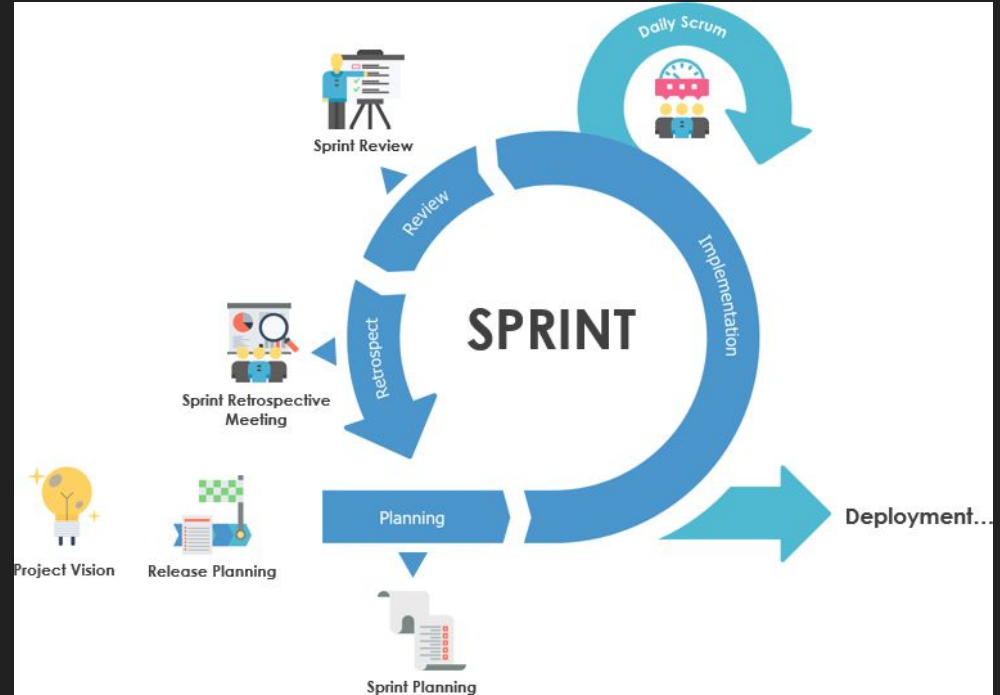
Server side:

- Server
- DB (MySQL)

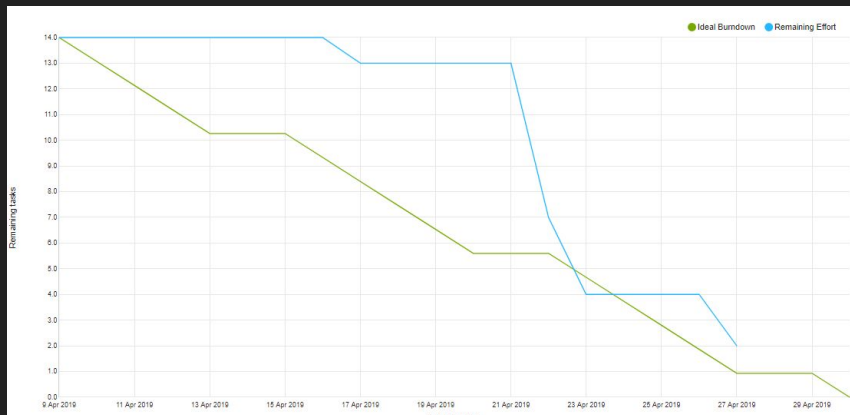
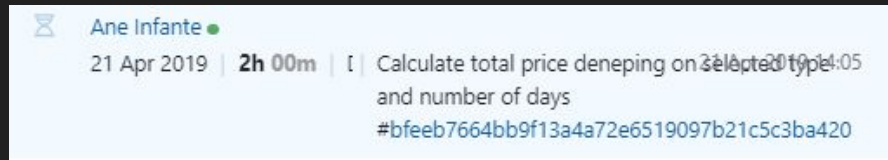
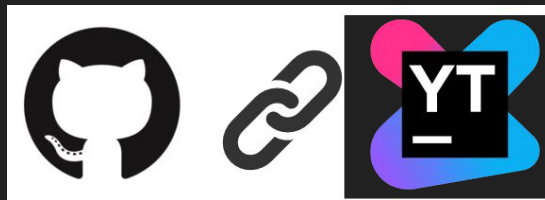


Brief description of the process using SCRUM

- 3 Sprints (2 weeks)
- Meeting calls
- Meetings in class
- Organised around exams
- Roles:
 - Product owner
 - Scrum master
 - Team



Description of the use of YouTrack for Scrum and the integration with GitHub



86PQ1064-41 Add Car Method	Not estimated	86PQ1064-40 Remove Car	Not estimated
86PQ1064-41 Add car tab	Not estimated	86PQ1064-42 Remove car tab	Not estimated
86PQ1064-61 Calculate total price depending on selected car	Not estimated	86PQ1064-66 Payment GUI and clientDataGUI	Not estimated
86PQ1064-66 Loggers	Not estimated	86PQ1064-48 Created serverLogger class	Not estimated
86PQ1064-40 JUnits	Not estimated	86PQ1064-64 ContiPerf	Not estimated
86PQ1064-65 VisualVM	Not estimated	86PQ1064-46 Downloaded several jdis to get VisualVM working	Not estimated

Description of the use of Maven










- Maven is a tool for building and managing projects.
 - Exists a POM.xml file in order to add all the plugins and the build options.
- Helpful for managing all the different tools used in our project.
- Main commands to run our project:
 - mvn clean compile
 - mvn exec:java -P server
 - mvn exec:java -P client
 - mvn datanucleus:schema-create
 - mvn datanucleus:schema-delete
 - mvn test
 - mvn doxygen:report

```
PS C:\SoftLabs\SD\BSPQ19-E4> mvn compile
[INFO] Scanning for projects...
[INFO]
[INFO] -----< carrenting:CarRenting >-----
[INFO] Building CarRenting 1.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
```

```
PS C:\SoftLabs\SD\BSPQ19-E4> mvn exec:java -P server
[INFO] Scanning for projects...
[INFO]
[INFO] -----< carrenting:CarRenting >-----
[INFO] Building CarRenting 1.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
```


About Unit, Coverage and Performance Testing

CarRenting

Element	Missed Instructions	Cov.	Missed Branches	Cov.	Missed	Cxty	Missed	Lines	Missed	Methods	Missed	Classes
 carrenting_client		86%		87%	12	89	21	213	4	35	0	2
 carrenting_server_jdo		87%		64%	16	42	27	227	1	21	0	2
 carrenting_server		90%		90%	2	23	2	44	1	18	0	1
Total	338 of 2 643	87%	29 of 160	81%	30	154	50	484	6	74	0	5

Unit Test coverage using jacoco:

- Nearly 90% of our code tested
- Certain classes were excluded in the POM
- Command to run the tests: “mvn test”

```
<excludes>
  <exclude>**/client/gui/**</exclude>
  <exclude>**/server/jdo/Rent.class</exclude>
  <exclude>**/server/jdo/Car.class</exclude>
  <exclude>**/server/jdo/Staff.class</exclude>
  <exclude>**/server/jdo/Garage.class</exclude>
  <exclude>**/server/Server.class</exclude>
</excludes>
```

We also use ContiPerf to test the performance of our methods.

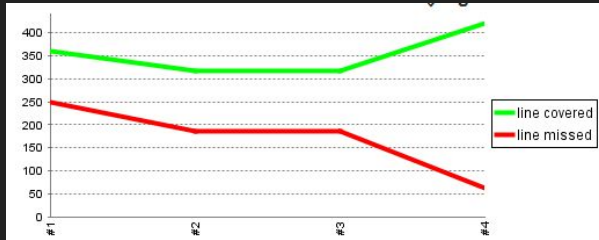
```
@Rule
public ContiPerfRule t = new ContiPerfRule();



@Test
@PerfTest(invocations = 50, threads = 5)
@Required(max = 1500, average = 1000, throughput = 5)
public void testLoginStaff() throws RemoteException {
```


Use of Jenkins and screenshot showing its use

Jenkins is a Continuous Integration tool to monitor repeating actions such as building a project or running tests.

- We run a test every 15 minutes.
- And we have integration with Jacoco to check the coverage.



S	W	Nombre ↓	Último Éxito
		CarRenting	1 Min 13 Seg - #4

Tests run: 19, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 22.909 sec

Results :

Tests run: 19, Failures: 0, Errors: 0, Skipped: 0

```
[INFO]
[INFO] --- jacoco-maven-plugin:0.8.3:report (report) @ CarRenting ---
[INFO] Loading execution data file C:\Users\Pope\.jenkins\workspace\CarRenting\target\jacoco.exec
[INFO] Analyzed bundle 'CarRenting' with 5 classes
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 38.065 s
[INFO] Finished at: 2019-05-19T21:54:46+02:00
```

Doxygen

- Generates the code documentation.
- Generates output in HTML. (on-line)
- The use of LaTeX commands enriches it. (off-line)

```
/**  
 * Calls the server to store the given garage.  
 *  
 * @param location Where is the garage  
 * @throws RemoteException  
 */
```

SLF4J

- Offers a simple interface.
- Allow users connect working framework during implementation.
- Uses de dependencies introduced in the classpath.

```
<groupId>org.slf4j</groupId>  
<artifactId>slf4j-api</artifactId>  
<version>1.7.25</version>
```

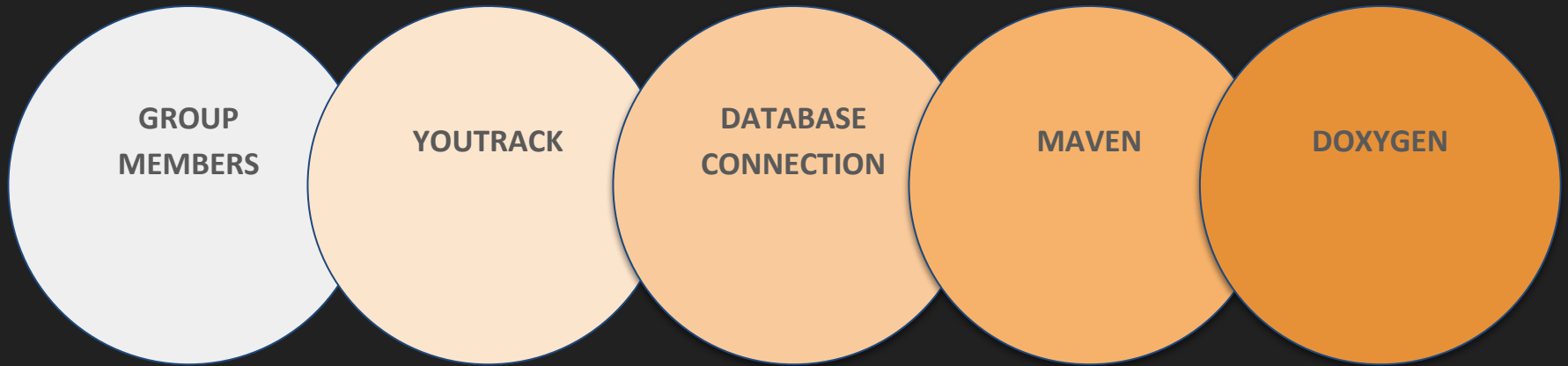
GitHub pages

- Turns github repositories into websites showing the project and documentation.
- No DataBases either servers to configure.

Activity log

 **github-pages** at ba0d71c
Deployed by aneinfante 5 days ago Active

Events and difficulties





CAR RENTING





Thank
You!