**Project requirements document**

**Project name: RENTALL**

**Authors: Ivan Vasyliev, Vladyslav Osatskyi, Denys Novak, Kyrylo Skybenko.**

**Date: 15.11.2020**

**0. Document versions**

Version 1. 15.11.2020

**1. Project components (project products)**

Programming elements:

* Web application (www platform) with access from browser
* MySQL database on a designated server

Non-programming elements:

* Project requirements and project vision documents
* Development documentation and license
* User manual (full in form user FAQ) and in-app hints
* Application prototype
* Usability tests reports
* GitHub code repository
* Jira task board

**2. Project boundaries**

* No mobile application development due to high maintenance and developments costs and support multiple operating systems (iOS, Android)
* No integrated delivery service to a client
* No significant quality control system (renter can only base on his own experience about owner’s product condition)

**3. List of functional requirements**

Log in / registration

As a user, I want to:

* Be able to search a site without authorization
* Create my own account
* Successfully log in only with my credentials
* Change password and recover it
* Be able to login using external account (Facebook)

Creating an advertisement

As an authorized user, I want to:

* Be able to create my own advertisement
* Add custom description to my product
* Add media (images) to my advertisement
* Use external store integration to simplify searching technical parameters for my product
* Set a rent term for products
* Remove or hide my advertisement
* Be sure advertisement is posted and visible for other users and for me in my account

Search

As a user, I want to:

* Search advertisements by keyword, city or category
* See a detailed information about each product

Rental

As a non-authorized user, I want to:

* Be not able to begin any rental process

As an authorized user, I want to:

* Make a reservation of a product
* Choose a date range for the rent
* Confirm a reservation of my product
* See an information about condition of a product and it’s parameters
* Find a contact information of an owner
* See a status of a product (reserved, available, returned) and list of products under each status
* Change a status as owner
* See an auto calculated price for a rental period
* Finish a process of rent by changing statuses and idle an advertisement

Payment system

As a renter, I want to:

* Make transactions through a payment system
* Be sure that payment is accepted

Communication and user account

As an authorized user, I want to:

* Find a contact info of and owner
* Be able to use built-in chat for contacting an owner and vice-versa
* Be able to rate users and leave an opinions
* Be able to change and save settings in my account

**4. List of non-functional requirements**

Usability

As a user, I want:

* An interface to be simple, clear and pleasant
* Find no significant errors that makes using an app impossible

Performance

As a user, I want:

* high performance of an app, short response times and good stability
* application be available in any time of a day from any location

Security

As a user, I want:

* all my personal data be secure and confident according to the Law
* my account resistant to access by unauthorised persons

**5. Measurable implementation indicators**

* The system will be made available on unspecified internet domain
* The platform will have at least 20 registered real users
* The platform will have at least 10 advertisements available
* The count of registered deals (status changes for a product) will be min. 10 and 1-2 per week
* The system will be subjected to load tests to ensure that if no more than 100 users use the system at the same time, the maximum response time of the server will not exceed 2 seconds.

**6. Project acceptance criteria for the second semester**

**Required:**

* Application is delivered to a server and accessible from different devices
* Key functionalities are implemented, those are:
  + Login / registration
  + Creating an advertisement
  + Search
  + Rental process
  + User accounts
  + Payment system integration

**Expected:**

* Additional functionalities:
  + Login integration with facebook
  + Built-in messenger
  + Integration with online store extension
  + Implementing more security layers

**Planned:**

* User interface improvements and redesign
* Extending a scope of products to several categories

**7. Organization of team work**

Team

Osatskyi Vladyslav

* product owner
* supervising project with the help of Jira Software
* frontend development

Kyrylo Skybenko

* frontend developer
* payment systems integration

Denys Novak

* backend main developer
* key features implementation

Ivan Vasyliev

* backend supportive development
* UI design
* testing
* composing and providing documentation

Work methodology: AGILE

Workflow: 1-2 week sprints with obligatory meeting at the beginning and accidental meetings during sprint. I allows to continuously increment a product and keep flexibility in case of development problems.

Source code repo: GitHub repository. Separate branches for key functionalities. After each sprint changes are committed to repo.

Project management: Jira Software. Backlog tasks are shared among team members. It is possible group working on one big task.

Task lifecycle diagram: Backlog (creation) -> assignment to member -> developing (status in progress) -> finished (status done) -> commit

**9. Project risks**

This paragraph should define as many risks as possible related to the implementation of the project (including those related to the use of technology) and define how to deal with the execution of the project. For example:

* Breakup of development team
* Different view on a development process / functionalities of team members
* Complexity of a project and lack of knowledge of team members
* Lack of sufficient interest from users
* Marketing campaign failure (application is unknown and not visible in top charts on search) hence low activity
* Costs of maintenance are higher than expected
* Performance problems with high number of users due to architecture design

**10. Milestones**

**Crude version.** Basic key functionalities, which allows for an owner a renter to fully go through a business process and make a deal, though many of useful features are still in development

ETA: 1.12.2020

**Functional version.** 80% of key functionalities are implemented, but are not fully usable by end-users. Payment system and authorization via Facebook implemented. A series of tests still needed to be done, major issues fixed and minor features added / improved.

ETA: 1-2 weeks of January

**Release version.** All key functionalities are implemented, service is ready to be delivered to an external server. No significant errors. Finishing a documentation and manuals.

ETA: end of January