**PROJECT CHARTER**

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| **Project Name** | Rentler – Web application for Renting Apartments |
| **Project Start Date** | 24.02.2023 |
| **Project End Date** | 17.05.2023 |
| **Project Manager** | Marta Kostetska |
| **Project Sponsor(s)** | ? |

1. **Project Vision**

To develop a scalable and reliable web application that enables users to search for apartments and book them easily. The application will be built using microservice architecture, which will allow for the independent scaling and deployment of individual components. The application will be developed using React, PostgreSQL, Docker, Spring Cloud, Spring Framework, and Spring Boot, making it highly performant, scalable, and secure.

1. **Goals and Objectives**

* To develop a web application that enables users to search for apartments and book them easily.
* To build a microservice architecture that allows for the independent scaling and deployment of individual components.
* To provide a user-friendly interface that makes it easy for users to navigate the platform.
* To attract a large number of property owners and renters to the platform, achieving a significant market share in the apartment rental market.
* Provide renters with detailed property descriptions, high-quality photos, and virtual tours of available rental properties to help them make informed decisions.
* Monitor application performance and user feedback to identify opportunities for improvement and implement changes to meet evolving user needs.
* To use React, PostgreSQL, Docker, Spring Cloud, Spring Framework, and Spring Boot to create a highly performant, scalable, and secure web application. Implementing a search function that allows users to filter apartments by location, price, and other criteria.

1. **Constraints**

* **Time constraints:** The project needs to be completed within a specific timeline, which can be a challenge given the complexity of the project and the number of technologies involved.
* **Budget constraints:** The project needs to be completed within a specific budget which should be managed carefully.
* **Technical constraints:** The use of microservice architecture, React, PostgreSQL, Docker, Spring Cloud, Spring framework, and Spring Boot can present technical challenges that can impact the project's success.
* **Compatibility constraints:** The application needs to be compatible with a variety of web browsers, operating systems, and devices to ensure accessibility to a wide range of users.
* **Performance constraints:** The application needs to perform well, be responsive, and deliver the expected results in a timely manner, even when handling a large volume of requests or users.

1. **Assumptions**

* The target market for the web application will be interested in renting apartments through an online platform.
* There will be a sufficient number of property owners interested in listing their properties on the platform.
* The use of microservice architecture and the selected technologies will result in a highly performant, scalable, and secure web application.

1. **Risks**

* The platform may fail to attract a sufficient number of property owners and renters.
* The development process may encounter unexpected delays or issues that could impact the project timeline.
* The platform may be vulnerable to cyber attacks or other security risks.
* The selected technologies may not work well together, resulting in poor performance or other issues.

1. **Expected Outcomes**

* **Increased efficiency in the apartment search process:** The application will provide renters with an easy-to-use platform for searching and selecting rental apartments, reducing the time and effort required to find a suitable apartment.
* **Increased transparency and communication between renters and property owners or managers:** The application will facilitate communication between renters and property owners or managers, improving transparency and reducing potential misunderstandings.
* **Increased access to a wider range of rental options:** The application will provide renters with access to a wider range of rental options, increasing their chances of finding a suitable apartment in their desired location and price range.
* **Increased customer satisfaction:** The application will provide renters with a convenient and efficient way to find and rent apartments, resulting in increased customer satisfaction and loyalty.
* **Improved business performance:** The application will enable property owners or managers to reach a wider audience of potential renters, increasing the occupancy rates of rental properties and improving overall business performance.

1. **Target audience**

The target audience for this web application for renting apartments is likely to be individuals or families who are looking for a place to rent. The application will be designed to cater to a broad demographic, including students, young professionals, and families, who are seeking rental accommodation for various durations, such as short-term, long-term, or vacation rentals. The application will be especially useful for individuals who are new to an area or city and are looking for a reliable and efficient way to find and book rental properties.

Additionally, the application may also appeal to property owners who want to list their properties for rent. The platform will provide an easy and convenient way for property owners to advertise their rental properties, find tenants, and manage their properties efficiently.

1. **Stakeholders**

**Customers:** The primary stakeholders of the web application are the customers who will be using the platform to search for rental apartments and manage their rental agreements.

**Property Owners:** Property owners who list their properties on the platform are also stakeholders as the success of the application will impact their ability to find and rent out their properties.

**Technical Team:** The development team responsible for creating and maintaining the application are stakeholders as they will be responsible for ensuring the application meets the necessary technical requirements.

**Partners and Vendors:** Partners and vendors who provide products and services related to the application, such as cloud hosting, are stakeholders who are impacted by the success of the application.

**Business Owners:** Executives who have invested in the project are stakeholders who have a vested interest in the success of the application.

1. **Executive Team**

**Project Manager (Marta Kostetska):** will oversee the entire project and ensure that it is completed on time and within budget. They will manage the project schedule, assign tasks to team members, and monitor progress.

**Software Developers (Kyryl Halmiz, Andriy Pyzh):** will be responsible for developing the application using the required technologies such as React, PostgreSQL, Docker, Spring Cloud, Spring framework, and Spring Boot. They will create the application's front-end and back-end, and integrate the various components using microservice architecture.

**UX Designer (Kyryl Halmiz):** will be responsible for creating a user-friendly and intuitive interface that is easy to navigate, visually appealing, and meets the needs of the target audience.

**Quality Assurance Tester (Serhii Pylypchuk):** will be responsible for testing the application to ensure that it is functioning properly, free of bugs, and meets the necessary requirements.

**DevOps Engineer (Volodymyr Shabat, Andriy Pyzh):** will be responsible for deploying and managing the application on a cloud infrastructure such as Google Cloud using Docker containers. They will also be responsible for ensuring that the application is scalable, secure, and highly available.

**Business Analyst (Marta Kostetska**): will be responsible for gathering requirements, conducting market research, and analyzing user feedback to ensure that the application meets the needs of the target audience and aligns with the business goals.

1. **Resource Allocation**

* **Software Developers**: 2 part-time employees for the duration of the development phase
* **UI/UX Designer:** 1 part-time employee for the duration of the development phase
* **Quality Assurance Engineer:** 1 full-time employee for the duration of the development phase
* **Project Manager:** 1 part-time employee for the duration of the project
* **Business Analyst**: 1 part-time employee for the duration of the project
* **DevOps Engineer:** 2 full-time and 1 part-time employees for the duration of the development phase
* **Hardware and Software Resources:** cloud hosting services, development and testing tools and frameworks, databases and other third-party software tools.

1. **Cost Allocation**

***11.1 Development Cost:***

* Salaries(3 months):
* PM/BA: $8000
* Software Developers: $12000
* UI/UX Designer: $4000
* Quality Assurance Engineer: $8000
* DevOps Engineer: $15000
* Software licenses: **$2000**
* Equipment: **$8500**

***11.2 Infrastructure Cost:***

* Cloud hosting services: **$1500**

***11.3 Total***

Total budget for the Rentler for 3 months: $59000