Vision

Version 1.0

Revision History

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Vision

# Introduction

Each person that owns a car and an apartment in the city of Cluj-Napoca has at least once in their life dealt with the debilitating task of requesting a parking place near the place they live. The system currently in place has a communist and bureaucratic approach to serve the overwhelming amount of requests and should be replaced by a modern electronic system, with fair and transparent rules. The current document will describe the solution we propose for this problem, what will be implemented, will clarify all ambiguous terms and argument why the system is a good replacement.

## Purpose

The purpose of the Online Parking Request System is to replace the old and obsolete Parking Request System in Cluj-Napoca with a more modern and fair implementation. Our aim is to reduce the human involvement in the allocation of parking spots to a minimum, if not to eliminate it completely and consequently to avoid unnecessary human queues at the font desks of the parking department. The first step in our vision is to eliminate all paper documents involved and replace them with electronic equivalents. The second step is to keep a database of all requests. The final step is to devise a new algorithm that calculates the ranking each applicant has for a parking spot, based on the distance between his residence and the parking spot and the age of his request.

## Scope

The following features will be covered by the Online Parking Request System[[1]](#footnote-1):

* User Authentication (Create Account + Login)
* Online Parking Request Submission (The user provides all required data: evidence of residence, valid car PTI, VIN)
* See personal parking request submissions
* Update car PTI proof for old requests (If your PTI has expired, you must update the request with a new one or else your application is rendered invalid)
* Calculate Ranking based on age of submission and distance from residence to parking place
* See rakings for a given parking spot / parking area
* City clerks can see submitted documents and assign a free parking spot to the applicant with highest rank.
* When a parking spot is assigned, the applicant is notified via email that he has to pay the parking fee
* When a parking spot is assigned, the parking request submitted by the applicant will no longer be taken into account for further evaluations
* If no payment has been made within 30 of the parking spot assignment, the city clerk is notified about this so he can reallocate the parking spot.

The following services are out of the scope of this project and will be provided by other systems:

* Service that calculates the distance from a given residence to a parking spot
* Service that recognizes pictures/scans and validates data for evidence of car ownership
* Payments of any kind

## Definitions, Acronyms, and Abbreviations

Throughout this and all related papers the following terms will be defined and understood by the reader as follows:

|  |  |
| --- | --- |
| **Term** | **Definition** |
| Parking Request | A request made by a person who owns a car and home in the city to receive a parking place near his residence. |
| Parking Place | Space owned by the town, with the purpose of holding/sheltering cars. To avoid further speculations, this document refers only parking places outside Zone 0 (which cannot be rented) and that can be rented to a citizen living nearby. |
| PTI | Periodical Technical Inspection |
| VIN | Vehicle Identification Number |

## References

For further clarifications see the following resources:

* Project\_UseCaseModel\_SubmitRequest
* Project\_UseCaseModel\_SeeRanking
* Project\_SupplementarySpecification
* Project\_Analysis\_and\_Design\_Document

## Overview

The upcoming sections of the document will describe the product positioning in the market, relative to other parking request systems. We will then continue by describing the involved stakeholders, the end users, the end user environment and the product hardware and software requirements.

# Positioning

## Problem Statement

|  |  |
| --- | --- |
| The problem of | Requesting a personal parking place |
| affects | Citizens that own cars |
| the impact of which is | Long waiting queues and unfair allocation of parking spots |
| a successful solution would be | To create an online parking place request system with transparent ranking and parking spot allocation. |

## Product Position Statement

|  |  |
| --- | --- |
| For | Cluj-Napoca’s town hall |
| Who | needs to provide a fair allocation for district parking spots |
| The Online Parking Request System | is a Request Management System |
| That | Accepts and centralizes user parking requests in a matter of second. |
| Unlike | The old paper and clerk bases system Integrify / Zendesk / HappyFox / SecurePark / Parkalot |
| Our product | * Takes into account the age of the request and the distance from the parking spot * Provides transparent ranking; * Eliminates corruption and bribes given to clerks by citizens eliminates queues; * Reduces operational costs for the city |

# Stakeholder and User Descriptions

## Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| City Mayor | Elected by the citizens once every 4 years to represent and server their interests. Is interested to provide a good solution for the parking requests. | Approves funding |
| Front desk city Clerk | The stakeholder(s) currently in charge with receiving and evaluating parking requests. The current system will take away his job | Will try to stop the project if possible |
| System Administrator | The person in charge with maintaining the system after implementation. | Ensures system integrates with other systems from the town hall.  Ensures system is maintainable.  Provides valid data to the system database |
| Police Officer | Is in charge of enforcing the parking spot allocation | Receives data regarding a parking spot allocation, if that spot needs to be verified. |
| Cashier | Receives payments for parking spot rent. | Wants to confirm payments in the system. |
| Implementation Team | The team developing the project. (That is you) | Provide a clean implementation with minimum effort. |

## User Summary

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Description** | **Responsibilities** | **Stakeholder** |
| Citizen | The user that submits the parking request. | Submits all required documents so he can receive a parking spot.  Deletes own requests  Updates own requests  Sees own requests  Sees rakings for a parking spot | He is a direct user |
| City Clerk | The person in charge of managing parking requests | Sees free parking spots.  Allocates free parking spots.  Is notified when a payment was not made. | He is a direct user |

## User Environment

**Citizen**

The citizen is considered to submit requests from his personal computer at home, in a non-stressful and calm environment.

**City Clerk**

The city clerk is considered to work from an office in the town hall. He may be interrupted my many other people at any given moment and could be stressed. For this reason, the system must provide him a workflow that supports interruptions and shows him at any moment the current state of the system. He must also work with several applications at a time and must do a lot of context switching.

# Product Requirements

For either user, the product requires first of all a stable internet connection, a computer with at least 8 GB RAM, Dual Core processor, one monitor, mouse and keyboard. For the city clerk, the product must show the system state at any given moment.

The product must integrate with the city’s payment system, the system of the police department, the system that provides distances between two points (i.e. residence and parking spot) and person and vehicle identification systems.

1. You need to have at least five features in your scope:

   Login + Register

   List View of elements (must contain joined tables)

   Details view of one element

   Create new element (with a form behind)

   Update and Delete Element [↑](#footnote-ref-1)