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| MYES Bus Ticketing System | |
| Vision | Date: 31/03/2021 |

MYES Bus Ticketing System



Vision

Revision History

| Date | Author(s) | Description | Version |
|------------|--|--|---------|
| 27/03/2021 | Mustafa Ilkkan Yigit Erkal Eren Erol Serdar Mumcu | Initial Version | v1.0 |
| 10/04/2021 | Mustafa Ilkkan Yigit Erkal Eren Erol Serdar Mumcu | Stakeholder list is fixed by adding immediate users and customers of the system and the staff member which is a defined role for helping customers. Releases section is fixed so that there will be the first release at the end of 4th Iteration and another future release is also planned Other product requirements are fixed so that they are now objectively testable. | v1.1 |
| 17/04/2021 | Serdar Mumcu | Iteration1 review's | v1.2 |

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|---------------------------|------------------|
| MYES Bus Ticketing System | |
| Vision | Date: 31/03/2021 |

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| | Mustafa Ilıkkın | accepted changes have been fixed in the document. Changes in the other artifacts are reflected into this document accordingly. | |
| 03/05/2021 | Serdar Mumcu | 'user environment' section is updated. | v1.3 |

1. Introduction

There are a plethora of different bus companies for intercity travelling in Turkey. However, we need to buy tickets by visiting their office location or make a phone call to make a reservation for the tickets. People's location can be very far away from the company's office location. Some companies sell people's reserved seats to somebody else or some seats can be sold to two different individuals by making a mistake. Therefore, it can be a problem for most of the passengers. People definitely need a single system to have a look at all the available alternatives, make/cancel reservations online or buy a ticket when it is required. With the help of this new system, both companies and passengers would get some benefits. For example, companies can be seen by much more passengers so that they will sell more tickets for sure and passengers can buy tickets in an easier and safer manner. They will not face the problems mentioned above anymore.

2. Positioning

2.1 Problem Statement

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| The problem of | Lack of a single bus ticketing system for passengers to see different alternatives and reserve/buy tickets online |
| affects | Bus Companies, Passengers, Bus Ticketing System Staff and Owners |
| the impact of which is | People need to make a phone call for reservations but their reservations cannot be guaranteed and they need to visit the office of the bus companies in person whether it is located far away to purchase a ticket. Sometimes some small bus companies can sell the same seat to multiple passengers by making a mistake. They cannot see other available alternatives nor they can compare prices. Bus companies cannot be known and seen by people who do not know the company or visit their office location in person. |
| a successful solution would be | For passengers, it becomes much easier, safer and cheaper to reserve/buy tickets online. For bus companies, their trips can be seen and bought by more passengers and their profits will be increased. For the owner of the bus ticketing system, they will earn money for providing a service for the bus companies by getting a small percentage commission from them. |

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|---------------------------|------------------|
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| Vision | Date: 31/03/2021 |

2.2 Product Position Statement

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| For | The Investment Company |
| Who | needs to make an investment on product for a solution that solves the bus company's ticketing problem in a single system |
| The (product name) | MYES Bus Ticketing System |
| That | makes the reserving/buying tickets easier, cheaper and safer |
| Unlike | The Bus ticketing systems that are specific to a single company |
| Our product | is a SaaS solution that companies may subscribe and enable passengers to list, compare and select all the available alternatives and choose the best one for their bus trip. |

3. Stakeholder Descriptions

3.1 Stakeholder Summary

| Name | Description | Responsibilities |
|-----------------|--|--|
| Project Manager | Project manager is the person who conducts project and makes iteration planning, manages iterations and assesses the results of each iteration. | <ul style="list-style-type: none"> • Preparing Project Plan • Preparing Iteration Plans • Risk Management • Defining Work Items |
| Architect | Architect is the person who envisions and refines the project architecture. | <ul style="list-style-type: none"> • Maintaining Architecture Notebook |
| Analyst | Analyst is the person who identifies and outlines requirements, specifies the details of system wide requirements and use-case scenarios, and develops the technical vision. | <ul style="list-style-type: none"> • Developing vision • Performing use-case modeling • Detailing system wide requirements • Detailing use cases • Maintaining the glossary |
| Developer | Developer is the person who designs and implements the solutions, implements and runs developer tests, and integrates the code to the main repository to create the build. | <ul style="list-style-type: none"> • Creating designs • Performing implementation activities • Conducting developer tests • Building the product |
| Tester | Tester is the person who creates test cases and then implements and runs these tests. | <ul style="list-style-type: none"> • Writing test scripts • Creating test cases • Maintaining a test log |

| | |
|---------------------------|------------------|
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| Investor Company | Investor is the stakeholder that provides the necessary capital needed for carrying out the project activities. | <ul style="list-style-type: none"> ● Providing necessary funds ● Evaluating the investment |
| Passenger | Passengers are the immediate users of the system. They will search for the trips, make/cancel reservations and buy tickets. | <ul style="list-style-type: none"> ● Using the system as an end user ● Search for the trips ● Make/cancel reservations ● Buy tickets |
| Bus Company | Bus Companies are the customers of the system. They will pay monthly fees or some predefined commissions from their transactions depending on their package selections in order to use the system. | <ul style="list-style-type: none"> ● Customers of the system ● Paying monthly fees or commissions to use the system. ● Defining Trips ● Managing Bus and Driver lists |
| Admin | A personnel who works for the system and responsible for managing bus company accounts in the system. | <ul style="list-style-type: none"> ● Managing bus company user accounts ● Giving bus companies credentials after setting up their accounts. |
| Staff | A personnel who works for the system to help bus companies to define their trips and manage their account settings and details. | <ul style="list-style-type: none"> ● Helping Bus companies to define their trips properly in the system. ● Helping Bus companies when they need any help in the system. |

3.2 User Environment

There will be four types of target users of the system: Administrator, Staff, Bus Company Users, Passenger Users. Administrator basically responsible for managing user accounts for Bus companies. Bus Company user will be managing their trips and Passenger users will be searching the trips, making/cancelling reservations for a trip and buying a ticket for the desired trip. Staff users will be able to impersonate bus company user accounts to help them to use the system when they need to.

All user types will use the system as an online web application throughout a modern web browser of any kind of desktop or notebook computer in the first release. However, the system will also support android and iOS mobile devices with native applications in the second release.

The system will be deployed on one of the available cloud providers on the market. The system needs to integrate with a payment gateway to allow passengers to pay via their Credit/Debit cards.

4. Product Overview

4.1 Needs and Features

| Need | Priority | Features | Planned Release |
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|---------------------------|------------------|
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| Login as Administrator | Medium | Administrator should be able to login to the system | First Release - v1 |
| Manage Bus Company Account | Medium | Administrator should be able to manage the bus company user accounts in the system | First Release - v1 |
| Login as a Bus Company user | High | Bus Company user should be able to login to the system | First Release - v1 |
| Managing Trip | High | Bus Company user should be able to manage trips | First Release - v1 |
| Managing Available Buses | High | Bus Company user should be able to manage buses in the company | First Release - v1 |
| Managing Driver | High | Bus Company user should be able to manage drivers | First Release - v1 |
| Monitor Reservations & Tickets | High | Bus Company user should be able to monitor the reservations and tickets for their trips | First Release - v1 |
| Monitor Sale Transaction | Low | Bus Company user should be able to monitor sales transactions | Second Release - v2 |
| Making Impersonation | Medium | Staff user should be able to make impersonation for bus company users to help them defining their trips | Second Release - v2 |

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| Sign up /login as Passenger User | High | Passenger user should be able to login to the system | First Release - v1 |
| Searching for a Trip | High | Passenger user should be able to search for a trip | First Release - v1 |
| Making a Reservation for a Trip | High | Passenger user should be able to make a reservation for a trip | First Release - v1 |
| Cancelling the Reservation for the Trip | High | Passenger user should be able to cancel their reservations | First Release - v1 |
| Buying a Ticket for a Trip | High | Passenger user should be able to buy a ticket | First Release - v1 |
| Native Android Application | Medium | Passenger user should be able to do all the system functions from a native Android Application | Second Release - v2 |
| Native iOS Application | Medium | Passenger user should be able to do all the system functions from a native iOS Application | Second Release - v2 |
| Printing Features | Medium | Passenger user should be able to print their reservations, tickets, or invoices | Second Release - v2 |
| Reporting Ticket Sales Records | High | Ticket sale records should be provided as a report if requested by government authorities | Second Release - v2 |

5. Other Product Requirements

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| Requirement | Priority | Planned Release |
|---|----------|-----------------|
| System must be accessible online as a Saas Platform | High | v1 |
| System should be able to respond to user actions within at most 5 second. | High | v1 |
| System shall support the following browser versions: Chrome version 89+ Safari version 14+ Firefox version 87+ | High | v1 |
| System should provide an authorization and authentication security mechanism for users of the system. | High | v1 |
| Error messages should be standardized | Low | v2 |