

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

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Vision

Revision History

Date	Author(s)	Description	Version
27/03/2021	Mustafa Ilkkan Yiğit Erkal Eren Erol Serdar Mumcu	Initial Version	v1.0
10/04/2021	Mustafa Ilkkan Yiğit Erkal Eren Erol Serdar Mumcu	<p>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.</p> <p>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</p> <p>Other product requirements are fixed so that they are now objectively testable.</p>	v1.1
17/04/2021	Serdar Mumcu	Iteration1 review's	v1.2

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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
08/05/2021	Serdar Mumcu	Two new needs are added: Change Password and Update Account Details	v1.4
30/05/2021	Serdar Mumcu	A clarification is added about how the revenue is transferred to the bus company's bank account	v1.5

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

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.

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a successful solution would be	<p>For passengers, it becomes much easier, safer and cheaper to reserve/buy tickets online.</p> <p>For bus companies, their trips can be seen and bought by more passengers and their profits will be increased.</p> <p>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.</p>
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2.2 Product Position Statement

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	<ul style="list-style-type: none"> Creating designs Performing implementation activities Conducting developer tests Building the product

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	integrates the code to the main repository to create the build.	
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
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.

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Other financial transactions according to the agreement between the bus company and the system will be managed manually and will not be handled in the system. All the money will be accumulated in the system's bank account and each month one account representative of the system will calculate the revenue of the bus company and decrease the fee of the system according to the paper agreement and transfer the remaining money to the bus company's bank account manually. System will not handle these processes.

4. Product Overview

4.1 Needs and Features

Need	Priority	Features	Planned Release
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

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Making Impersonation	Medium	Staff user should be able to make impersonation for bus company users to help them defining their trips	Second Release - v2
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
Change Password	High	All the users should be able to change their passwords	Second Release - v2
Update Account Details	High	All the users should be able to update their account details	Second Release - v2
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

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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

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 Google Chrome browser (version 89 or later versions)	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