

**Software
requirements specification**
For administrative and user platform



VG TU
Mobile Shopper Guide

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Section 1. Overview

1.1 Purpose

The purpose of this Software Requirements Specification is to specify requirements for a system's "Mobile Shopper Guide" administrative and user platform. This document is intended to use by testers, system analyst and developers.

1.2 Business Context

The sponsoring of the development of the software will be by the creator of the portal who will do not apply for the payment. The mission of the portal is to develop the "Mobile Shopper guide" system's administrative and user portal, where shop owners could enter shop's locations and short advertisement. The benefit for the creator of the portal will be to get a check point for the master thesis.

1.3 Scope

In an administrative and user portal should be a possibility to create a new shop, new user and a new comment for an appropriate shop. In addition there must be opportunity to edit all those elements. Next, all required information about the portal should be present at help section. There should be functionality, which allows viewing map of Vilnius. There will be no possibility to add point directly in the map.

1.4 User Characteristics

There will be three types of users. They are as following:

- A. administrators
- B. simple users
- C. viewers of the page

The administrators are more advance type of user, there may be several of them in the portal. They should be able to create new users with administrator or user roles. Also they must have functionality, which will allow creating shops for other users, adding comments to the shops, editing user's profiles, enable disabled accounts, and deleting users, comments, shops.

Simple user is just ordinary user who may have no clue at the beginning about the system. There may be a lot of them. So extra detail help and user friendliness is required. He must have possibility to edit his profile, add a new shop, add a new comment for the shop and delete comment or shop.

Viewer of the page is unauthorized visitor, who may have or not understanding about the system. It may be many of them. They must have possibility to overview the description about the portal,

to add some comment in the guest book, to view help of the portal, to register as a new user and to get an access to the portal.

Section 2. Assumptions, Dependencies, Constraints

2.1 Assumptions

All system will be suited for Lithuanian market and will display Vilnius map.

The administrative and user portal will be web based application.

2.2 Dependencies

All data gathered in this application will be used in mobile phone application, which will display map and points of interest.

2.3 Constraints

Due to the time shortage the scope will be minimized. There will be no possibility to enter the point directly in the map and to save it. In addition there will be used freeware software for creation of the product.

Section 3. Requirements

3.1 Business Requirements

The shop owners using this system will have a possibility to advertise their shop by entering a comment - "shops advertise" in the system, which will be displayed in the mobile map. In the future there should be a possibility to create not only shops, but also events or services, which can be proposed for a user.

3.2 Functional Requirements

3.2.1 Function "enter comment in the guest book"

3.2.1.1 Function "enter comment in the guest book" Purpose

An unauthorized user must have a possibility to enter a comment about SG in the web page

3.2.1.2 Function "enter comment in the guest book" Inputs

Any Latin symbol or number can be kept as an input. In addition it should be possible to enter ~!@#\$\$%^&*(){}[];"<>?., symbols too. There should be possibility to enter maximum 1000 symbols.

3.2.1.3 Function "enter comment in the guest book" Operations

User which wants to enter a comment in the guest book must enter his address and comment. Both fields are not required. After entering needed information submit action should be performed by a user, which will enter the comment to data base. After submit this comment should be added to the page. It should be no editing possibility of the comment. Comment automatically should contain time information.

3.2.1.4 Function "enter comment in the guest book" Outputs

There is not output formed, only new entered comment should be displayed in the page.

3.2.2 Function "create a new user"

3.2.2.1 Function "create a new user" Purpose

Unauthorized user and administrator should have a possibility to create new user in the administrative and user platform

3.2.2.2 Function "create a new user" Inputs

The following information should be entered:

Information	Type/comments	length	Available for user
SG ID Owner's Name	Latin symbols	50 symbols	Unauthorized user and administrator
Phone number	Number and "+" sign	15 symbols	Unauthorized user and administrator
e-mail	Any symbols	40 symbols	Unauthorized user and administrator
SG ID	Latin symbols	50 symbols	Unauthorized user and administrator
Password	Latin symbols	20 symbols	Unauthorized user and administrator
Question for remember the password	Four options should be available: What is your pet name? What is you best friend name? What is you mother Family Name? What is your brother name?	-	Unauthorized user and administrator
The answer	Latin symbols	50 symbols	Unauthorized user and administrator
Role	Two option available: User administrator	-	administrator
Term of Service	Two option available: agree do not agree	-	Unauthorized user

3.2.2.3 Function "create a new user" Operations

To create a new user with corresponding information, cancel creation, clear entered information.

3.2.2.4 Function "create a new user" Outputs

After user successfully created, there should be written "Your login: xx successfully created!" for unauthorized user.

3.2.2 Use Case “create a new user”

1. Name: create a new user
2. Description: creation of a new user with entered information
3. Actors: unauthorized user or administrator
4. Pre-Conditions: Role, SG ID Owner's Name, e-mail, SG DI, password, term of service must be entered
5. Post-Conditions: user is created successfully.
6. Successful Path: All required fields are populated correctly which are listed in Pre-conditions point and confirmation about adding the user is selected.
7. Paths:
 - D. Not all information is entered in required fields or some fields contains validation errors, submit is clicked then error message is displayed; there is no possibility to continue with creation until errors are corrected or C or D scenarios should be followed.
 - E. All correct information is entered in required fields, submit is clicked and user is created;
 - F. Entered information is cleared by clicking clear button, A, B, D scenarios can be performed text.
 - G. Cancel button is clicked when some information is entered, all entered information is deleted, user is navigated to previous page.
8. Exceptions: A paths. Corresponding error messages should be displayed.
9. Rules: Role, SG ID Owner's Name, e-mail, SG DI, password, term of service is required fields. SG DI should be unique.

3.2.3 Function “create a new shop”

3.2.3.1 Function “create a new shop” Purpose

To create a shop with corresponding information

3.2.3.2 Function “create a new shop” Inputs

The following information should be entered:

Information	Type/comments	length	Available for user
SG ID	Latin symbols	50 symbols	administrator
Shop Name	Latin symbols	50 symbols	User and administrator
Address	Latin symbols and numbers	50 symbols	User and administrator

Opening hours	symbols	50 symbols	User and administrator
Contact person	Latin symbols	30 symbols	User and administrator
Phone	Number and “+” sign	15 symbols	User and administrator
E-mail	Any symbols	40 symbols	User and administrator
X	Number	10 symbols	User and administrator
Y	Number	10 symbols	User and administrator

3.2.3.3 Function “create a new shop” Operations

There is a possibility to create a new shop, cancel creation of a new shop.

3.2.3.4 Function “create a new shop” Outputs

A new shop is created and displayed in the UI.

3.2.3 Use Case “create a new shop”

1. Name: create a new shop
2. Description: create a new shop with entered information
3. Actors: user or administrator
4. Pre-Conditions: at least shop name, x, y, SG ID must be entered
5. Post-Conditions: a new shop is created successfully.
6. Successful Path: All required fields are populated correctly which are listed in Pre-conditions section and confirmation button of adding shop is clicked.
7. Paths:
 - A. All required fields are populated correctly which are listed in Pre-conditions section and confirmation button of adding shop is clicked.
 - B. Some fields are populated and cancel button is clicked all information is lost and user is navigated to the previous page
 - C. Not all required field are populated or some field has validation error then error message are displayed it is not allowed to continue unless errors are corrected or B scenario can be performed.

8. Exceptions: C paths. Corresponding error messages should be displayed.
9. Rules: X, Y fields must be in range of 1 till 1800. Shop name, x, y, SG ID are required fields. SG ID should already exist.

3.2.4 Function “create a new comment”

3.2.4.1 Function “create a new comment” Purpose

To create a comment with corresponding information

3.2.4.2 Function “create a new comment” Inputs

The following information should be entered:

Information	Type/comments	length	Available for user
Shop Name	Latin symbols	50 symbols	User and administrator
Comments	Any symbol	100	User and administrator
Start Date	Date	8 symbols	User and administrator
Stop Date	Date	8 symbols	User and administrator

3.2.4.3 Function “create a new comment” Operations

There is a possibility to create a new comment, cancel creation of a new comment.

3.2.4.4 Function “create a new comment” Outputs

A new comment is created and displayed in the UI.

3.2.4 Use Case “create a new comment”

1. Name: create a new comment
2. Description: create a new comment for the corresponding shop
3. Actors: user or administrator
4. Pre-Conditions: Shop name, start and stop dates must be entered
5. Post-Conditions: a new comment is created successfully.
6. Successful Path: All required fields are populated correctly which are listed in Pre-conditions section and confirmation button of adding comment is clicked.

7. Paths:
 - A. All required fields are populated correctly which are listed in Pre-conditions section and confirmation button of adding comment is clicked.
 - B. Some fields are populated and cancel button is clicked all information is lost and user is navigated to the previous page
 - C. Not all required field are populated or some field has validation error then error message is displayed it is not allowed to continue unless errors are corrected or B scenario can be performed.
8. Exceptions: C paths. Corresponding error messages should be displayed.
9. Rules: star and stop dates should be allowed to enter 2008 or 2009 years. Shop name, start and stop dates are required fields. Shop should already exist.

3.2.5 Function “view shop information”

3.2.5.1 Function “view shop information” Purpose

Administrator or user should have possibility to view all information about the shop

3.2.5.2 Function “view shop information” Inputs

No input is required

3.2.5.3 Function “view shop information” Operations

There should be possibility to view all fields which are described in “create a new shop” function.

3.2.5.4 Function “view shop information” Outputs

Information described in “create a new shop” is displayed in read only mode fro a user and in edit mode for an administrator.

3.2.6 Function “view comment information”

3.2.6.1 Function “view comment information” Purpose

Administrator or user should have possibility to view all information related with comment

3.2.6.2 Function “view comment information” Inputs

No input is required

3.2.6.3 Function “view comment information” Operations

There should be possibility to view all fields which are described in “create a new comment” function.

3.2.6.4 Function “view comment information” Outputs

Information described in “create a new comment” is displayed in read only mode fro a user and in edit mode for an administrator.

3.2.7 Function “view user’s profile”

3.2.7.1 Function “view user’s profile” Purpose

Administrator or user should have possibility to view all information related with its own profile, while an Administrator should have possibility to view other user profiles.

3.2.7.2 Function “view user’s profile” Inputs

No input is required

3.2.7.3 Function “view user’s profile” Operations

There should be possibility to view all fields which are described in “create a new user” function.

3.2.7.4 Function “view user’s profile” Outputs

Information described in “create a new user” is displayed in edit mode fro a user and an administrator.

3.2.8 Function “view statistics of a user”

3.2.8.1 Function “view statistics of a user” Purpose

Administrator should have a possibility to view information related with the user’s account usability

3.2.8.2 Function “view statistics of a user” Inputs

No input is required

3.2.8.3 Function “view statistics of a user” Operations

There should be possibility to view statistics and to add some comments.

3.2.8.4 Function “view statistics of a user” Outputs

Account creation date, last login date, last password change date, last lockout date, comments, whether an account is locked should be displayed in read only mode fro a user and an administrator.

3.2.9 Function “view map”

3.2.9.1 Function “view map” Purpose

Administrator and user should have a possibility to view shop locations in Vilnius map

3.2.9.2 Function “view map” Inputs

No input is required

3.2.9.3 Function “view map” Operations

There should a possibility to view shop’s locations in Vilnius map in a new window.

3.2.9.4 Function “view map” Outputs

The map of Vilnius is displayed with points, which marks the locations of the shops. Near each point shop name should be displayed.

3.2.10 Function “delete”

3.2.10.1 Function “delete” Purpose

Administrator and user should have a possibility to delete no longer needed information. It may be a shop, comment or user.

3.2. 10.2 Function “delete” Inputs

No input is required

3.2. 10.3 Function “delete” Operations

An administrator should have a possibility to delete shop, user, and comment. User should have possibility to delete shop and comment.

3.2. 10.4 Function “delete” Outputs

Unneeded information is deleted. It is no longer visible in UI.

3.2.11 Function “Unlock”

3.2.11.1 Function “Unlock” Purpose

Administrator should have ability to unlock blocked user

3.2.11.2 Function “Unlock” Inputs

User name, which must be unlocked is input.

3.2.11.3 Function “Unlock” Operations

Unlock blocked user

3.2.11.4 Function “Unlock” Outputs

Locked user is unlocked, status of user is changed.

3.2.12 Function “Update profile”

3.2.12.1 Function “Update profile” Purpose

Administrator and user should have possibility to update user's profile. The administrator should have ability to update other user's profile.

3.2.12.2 Function “Update profile” Inputs

No input is required

3.2.12.3 Function “Update profile” Operations

Administrator should have possibility to update not only his own profile, but other user's profile too. User should have possibility to update only his own profile.

3.2.12.4 Function “Update profile” Outputs

User profile is changed in UI

3.2.13 Function “Update shop”

3.2.13.1 Function “Update shop” Purpose

Administrator and user should have possibility to update shop's information

3.2.13.2 Function “Update shop” Inputs

No input is required

3.2.13.3 Function “Update shop” Operations

Administrator should have possibility to update other user's shop information. User should have possibility to update only his own shop's information.

3.2.13.4 Function “Update shop” Outputs

Shop information is changed in UI

3.2.14 Function “*Update comments*”

3.2.14.1 Function “*Update comments*” Purpose

Administrator and user should have possibility update comment's information

3.2.14.2 Function “*Update comments*” Inputs

No input is required

3.2.14.3 Function “*Update comments*” Operations

Administrator should have possibility to update other user's comment information. User should have possibility to update only his own comment's information.

3.2.14.4 Function “*Update comments*” Outputs

Shop information is changed in UI

3.2.15 Function “*information of pages*”

3.2.15.1 Function “*information of pages*” Purpose

Administrator, user or unauthorized user should have possibility to gain some information about the portal. So the portal should include general information about system, web page and short help.

3.2.15.2 Function “*information of pages*” Inputs

No input is required

3.2.15.3 Function “*information of pages*” Operations

All users by navigating to the appropriate web page should get information about the portal.

3.2.15.4 Function “*information of pages*” Outputs

Needed information for a user is displayed.

3.2.16 Function “*login logout*”

3.2.16.1 Function “*login logout*” Purpose

Unauthorized user should have possibility to login to the account as administrator or user, depending on the role the account has. Also login user should have possibility to logout from the portal.

3.2.16.2 Function “login logout” Inputs

The following information should be entered:

Information	Type/comments	length	Available for user
SG ID	Latin symbols	50 symbols	Unauthorized user
password	Latin symbols	20 symbols	Unauthorized user

3.2.16.3 Function “login logout” Operations

A user should be login in the portal using SG ID and correct password. Also he must have possibility to log out from the portal.

3.2.16.4 Function “login logout” Outputs

After login operation for the user appropriate web page should be displayed. After logout, information about successful log out should be displayed.

3.2.17 Function “forgot the password”

3.2.17.1 Function “forgot the password” Purpose

Unauthorized user should have possibility to “remember” his password when he knows appropriate information.

3.2.17.2 Function “forgot the password” Inputs

SG ID, Question for remember the password, The answer is required.

Information	Type/comments	length	Available for user
SG ID	Latin symbols	50 symbols	Unauthorized user
Question for remember the password	Four options should be available: What is your pet name? What is you best friend name? What is you mother Family Name? What is your brother name?	-	Unauthorized user and administrator
The answer is required	Latin symbols	50 symbols	Unauthorized user and administrator

3.2.17.3 Function “*forgot the password*” Operations

When a user enters all needed information his password should be sent to his e-mail.

3.2.17.4 Function “*forgot the password*” Outputs

The password is sent to the SG ID user's e-mail.

3.2.18 Function “*download jar or jad*”

3.2.18.1 Function “*download jar or jad*” Purpose

Unauthorized user should have possibility to download files needed for his mobile phone to get the system running.

3.2.18.2 Function “*download jar or jad*” Inputs

No input is required

3.2.18.3 Function “*download jar or jad*” Operations

When a user clicks on the hipper link the download process should start into his computer. After it is finished, the downloaded file should be in his computer.

3.2.18.4 Function “*download jar or jad*” Outputs

The message that download process is complete is displayed.

3.3 User Requirements

User requirements for the hardware:

- monitor which will have 1024x768 resolution
- keyword suited for Latin symbols and Arabic numbers
- standard mouse

User requirements for the software:

- Operating system Windows XP, Windows Vista
- Browser – internet explorer

3.4 Information Management Requirements

Data creation, capture and organization:

Data about other users and their information can be created by administrator. A simple user can create information only belonging to him. All data should be written into DB using one and the same DB login user.

Data storing, maintenance and usage:

All information about the user should be accessible to the administrator of the system and to the user himself. All information about the page and page maintenance should be accessible for the administrator of the portal. All data should be stored in DB which is accessible for the administrator only.

Data protection and disposition:

All data should be accessible only by authorized administrator user. It should be non windows domain user. User it self after authorization can access its own data. All data stored in DB should be accessible and modified by DB administrative user, who may not coincide with administrator of the portal. All data in the portal should be protected against deleting and modifications of hackers.

3.5 Systems Requirements

3.5.1 Performance Requirements

Session handling: Each user willing to acquire session should login firstly. Each session should last no longer than 30 minutes without work.

Multi-user handling: Each user can connect at the same time to the portal from different or the same computer. At once there should be possible to login at least for 20 users.

Multi-transaction handling: during the peak period the task to perform should take no longer than 30 seconds. During the normal conditions operation should take no longer than 10 seconds.

3.5.2 Quality Requirements

Requirements for the software: Created software should correspond the requirements.

Requirements for the code quality: The whole program should be not large that 1GB, all written code should be possible to reuse, it must be commented.

Section 4. Requirements Traceability Matrix

ID	Requirements	Software requirements	Design Specification	Test Case	Successful Test Verification	Modification Of requirements	Remarks
1	All functional requirements are mapped in SyDD	SRS	SyDD	-	-	No	More detail overview is needed

Section 5. Glossary

SRS – software requirement specification

DB – data base

UI – user interface

SG – shopper guide

SyDD – system design description

Section 6. Revision History

Identify changes to the SRS.

Version	Date	Name	Description
1	2008-05-03	Egidija Charzevskyte	SRS creation