SYSTEMS PROGRAMMING AND SCRIPTING

FLORIAN BERGMANN
PERSON ID: H00020398

Assessment One: Stock Manager

CONTENTS

LIST OF FIGURES

LIST OF TABLES

LISTINGS

ACRONYMS

AR   Additional-Requirements

FR   Favourite-Requirements

GR   GUI-Requirements

GUI   graphical user interface

HPR   Homepage-Requirements

HR   History-Requirements

HTML HyperText Markup Language

HTTP Hypertext Transfer Protocol

PR   Printing-Requirements

URL   Uniform Resource Locator

WR   Web-Requirements

Part I

DEVELOPMENT OF A BASIC WEB BROWSER

INTRODUCTION

This chapter will provide an overview over the document and recapture the specified requirements that were requested.

1.1 DOCUMENT OVERVIEW

The document is divided into seven chapters that will describe different aspects of the developed program:

Chapter 1 provides an overview over the document and the specified requirements, alongside certain assumptions that were made during the development.

Chapter 2 will give a short outline of the requirements that were fulfilled, as well as mention added functionality that was not requested.

Chapter 3 will provide a high level overview over the system's architecture and its sub modules.

Chapter 4 is a short user guide that will describe the usage of the program by leading the reader through a selected choice of use cases to accomplish certain tasks.

Chapter 5 will be based upon Chapter 3 and provide an in-depth explanation of certain details of the implementation.

Chapter 6 will outline how testing was performed and which cases have been covered.

Chapter 7 will provide a reflection of the development process and the program and highlight areas of interest from the developer's point-of-view.

1.2 REMIT

The remit will summarize the requirements provided in the document *Systems Programming & Scripting (2010/2011) Assessment Two* and list all assumptions made in respect to a certain requirement.

For later reference in Chapter 2 the requirements will be divided into seven groups: Web-Requirements (WR), Homepage-Requirements (HPR), Favourite-Requirements (FR), History-Requirements (HR), Printing-Requirements (PR), GUI-Requirements (GR), Additional-Requirements (AR)

WR01: Send Hypertext Transfer Protocol (HTTP) request message for typed Uniform Resource Locator (URL)s.

WR02: Receive HTTP responses for send requests.

WR03: Display received HyperText Markup Language (HTML)-code.

WR04: Display HTML for 200, 400, 403 and 404 headers.

HR01: Allow creation and editing of a homepage-URL.

HR02: Load homepage on application start-up.

FR01: Allow adding, deleting and editing of a URL to a list of favourites.

FR02: Allow the specification of a name for a favourite.

FR03: Request a favourite's URL when the favourite is activated.

FR04: Load all favourites on application start-up.

HR01: All pages that are requested shall be saved in a history.

HR02: Request a URL when an entry in the history is activated.

HR03: Load history on application start-up.

PR01: Allow printing of displayed web page.

GR01: Provide a graphical user interface (GUI) for the requirements.

GR02: Use menus, buttons, short cuts to increase *accessibility*[1].

AR01: Utilize multi-threading to keep application responsive.

AR02: Allow requesting of multiple web pages simultaneously.

---

1 Assumption: accessibility can be enhanced by using a standard layout common in Windows environments.

REQUIREMENT'S CHECKLIST

The following list shall provide an overview over the fulfilled requirements. The number correspond to those used in Chapter 1.

WR01: Fulfilled by utilizing the HTTPWebRequest-classes of .NET.

WR02: Fulfilled by utilizing the HTTPWebResponse-classes of .NET.

WR03: Fulfilled in the GUI.

WR04: Fulfilled via error-handling.

HR01: Fulfilled as application setting [1].

HR02: Fulfilled.

FR01: Fulfilled [2]

FR02: Fulfilled.

FR03: Fulfilled. URL will open in current window.

FR04: Fulfilled.

HR01: Fulfilled.

HR02: Fulfilled. URL will open in current window.

HR03: Fulfilled [3].

PR01: Fulfilled. User can print the HTML-code of the current window.

GR01: Fulfilled. See Chapter 4.

GR02: Fulfilled. See Chapter 4.

AR01: Fulfilled. See Chapter 3 and Chapter 5 for further information.

AR02: Fulfilled.

---

1 A Windows conform standard path based on the user account is chosen to save the homepage and can not be adjusted.
2 A Windows conform standard path based on the user account is chosen to save the favourites and can not be adjusted.
3 A Windows conform standard path based on the user account is chosen to save the history and can not be adjusted.

DESIGN CONSIDERATIONS

USER GUIDE

DEVELOPER GUIDE

TESTING

7

CONCLUSIONS

Part II

APPENDIX

A

APPENDIX: SOURCE CODE

BIBLIOGRAPHY

Balzert, Helmut (2009). *Lehrbuch der Software-Technik: Basiskonzepte und Requirements Engineering*. 3. Heidelberg: Spektrum. ISBN: 9783827417053.

Boodhoo, Jean-Paul (2006). *Design Patterns: Model View Presenter*. English. Microsoft. URL: http://msdn.microsoft.com/en-us/magazine/cc188690.aspx (visited on 19/10/2010).

Dorman, Scott (2010). *Sams Teach Yourself Visual CSharp®2010 in 24 Hours: Complete Starter Kit*. Sams Publishing. ISBN: 978-0-672-33101-5.

Freeman, Eric and Elisabeth Freeman (2004). *Head First - Design Pattern*. Ed. by Mike Loukides. O'Reilly. ISBN: 0-596-00712-4.

Noyes, Brian (2006). *Data Binding With Windows Forms 2.0 - Programming Smart Client Data Applications With .NET*. Addison Wesley Professional. ISBN: 978-0-321-26892-1.

Sommerville, Ian (2006). *Software Engineering*. 8th ed. Addison Wesley. ISBN: 9780321210265.

Stellman, Andrew and Jennifer Greene (2010). *Head First CSharp*. O'Reilly. ISBN: 978-1-449-38034-2.