


Web Application – “eSamoobsluha”

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ABSTRAKT

Hlavním cílem této bakalářské práce je vytvoření webové aplikace „eSamoobsluha“, která by mohla být použita v běžném internetovém provozu. V první části práce jsou uvedeny technologie a software, který byl použit při vytváření projektu. Dále je zde také popsána struktura webové aplikace s náhledy obrazovek „eSamoobsluha“ a struktura databáze s popisem jednotlivých tabulek. Posledním bodem je popis práce s aplikací z pohledu zákazníka i administrátora.

Klíčová slova:

php, html, css, mysql, esamoobsluha, www

ABSTRACT

The main aim of this bachelor project is to create web application „eSamoobsluha“, which could be used in regular internet traffic. At the beginning of this thesis, there are mentioned the technologies and software, which were used to create the project. Next there is described the structure of the web application with some views of the „eSamoobsluha“ and the structure of the database with tables in detail. In the last part, there is the description of work in the system as a customer and administrator aswell.

Keywords:

php, html, css, mysql, esamoobsluha, www

I proclaim that I worked on whole bachelory thesis individually and citated used literature.

In Zlín, 06. 06. 2006

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Jan Pálka

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INTRODUCTION

The main purpose of this bachelor work is to create the web application „eSamoobsluha“.

The main e-shop requirements were compatibility with wide spectrum of web viewers, using modern scripting technology PHP5, JavaScript, and database system MySQL. Graphics interface was designed purely by cascade styles sheets (CSS). The system is divided into two parts, the administrator and user part.

This e-shop system should be functional in regular internet traffic.

The web application is designed for using with general computer user without programming skills. There is not skilled webmaster needed to administrate the sites. This important attribute is secured by using modern scripting technology PHP, JavaScript and database system MySQL, which go hand in hand to serve easy administration of the e-shop by using web forms in administrator section which is included on the sites.

The bachelor work describes the technologies and software used in the development of the system, the structure of the system and database. It also contains the instructions for customer and web administrator needed for using the e-shop.

The whole work has been created and written for trouble-free using of this e-shop system.

„eSamoobsluha“ is available in test mode with fictional goods and users on

www.esamoobsluha.php5.cz.

I. THEORETICAL PART

1 APPLIED TECHNOLOGY AND SOFTWARE

1.1 PHP



An abbreviation PHP was an alphabetic English phrase Personal Home Page. This technology was created in the year 1994 by Rasmus Lerdorf originally for monitoring visit rate of his web. With increasing potential of this technology (ability to achieve more complex solution) was the term PHP (recursive acronym for "PHP: Hypertext Preprocessor") undertaken.

PHP is embedded scripting language. It is possible to interpret it directly into the HTML code. Because of this feature the developing of web applications is easier and faster. The PHP Language is designed to react on the specific user demands (for example if user sends the form).

This technology is fully independent on the platform and it can be used on most of operating systems (Microsoft Windows, UNIX and many of its versions and Macintosh). PHP is the server technology. It means that all written in PHP is executed on the server side, not client. The PHP technology has many advances in comparison with other technologies. In the main advances of this language belongs the performance, simplicity, stability, possibility of expanding, integration with most of available database systems and not least good portability.

The best advance of PHP is that all these good features are completely free (it is supplied with open source code).

PHP works on server side. The written code is stored on computer which supplies the web. At the moment the user is visiting this presentation, the server loads up the PHP code a consequently executes it according to requirements (1).

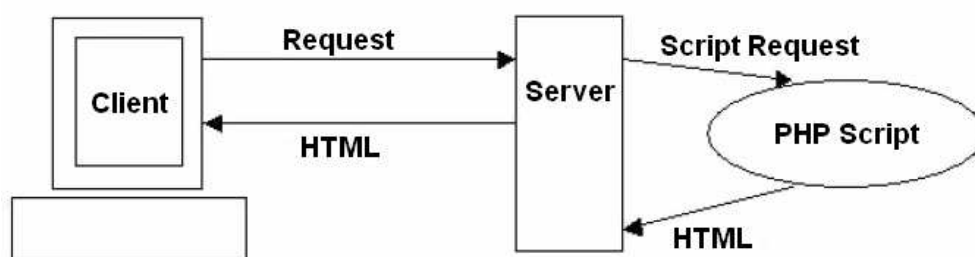


Fig. 1. PHP Script Principle

On the Figure 1 you can see how the PHP communicate with server, to send appropriate data to browser. The web viewer executes this data in the same way as the data obtained from regular static sites using HTML code. This is the difference between static and dynamic pages. In the case of static sites there is no processing on server side. The server just sends HTML data on request.

1.2 APACHE



1.2.1 APACHE HTTP SERVER PROJECT

The Apache HTTP Server Project is a collaborative software development effort aimed at creating a robust, commercial-grade, featureful and freely-available source code implementation of an HTTP (Web) server. The project is jointly managed by a group of volunteers located around the world, using the Internet and the Web to communicate, plan, and develop the server and its related documentation. This project is part of the Apache Software Foundation. In addition, hundreds of users have contributed ideas, code, and documentation to the project. This file is intended to briefly describe the history of the Apache HTTP Server and recognize the many contributors.

1.2.2 APACHE HTTP SERVER

One of the world's most popular Web server programs, Apache was built by a group of open-source programmers and is often used because of its outstanding performance, strong security features and the fact that it is free.

- is a powerful, flexible, HTTP/1.1 compliant web server
- is highly configurable and extensible with third-party modules
- can be customised by writing 'modules' using the Apache module API
- provides full source code and comes with an unrestrictive license
- runs on Windows 2003/XP/2000/NT/9x, Netware 5.x and above, OS/2, and most versions of Unix, as well as several other operating systems
- is actively being developed
- encourages user feedback through new ideas, bug reports and patches

1.3 MYSQL



MySQL is one of the most popular and according to many users the best database system at all. Like the PHP it is the system with open source code. The system has new function added in version 4. Thanks to this system upgrade became the MySQL more-competitive like well-known database systems Oracle or SQL Server by Microsoft Company. MySQL dispose of high performance, good portability, reliability and minimal operating expenses.

Application was developed and still is improved by Swedish MySQL AB. Company that is concerned with system of databases management (DBMS - DataBase Management System), which is designed for relational databases. The MySQL is used as management system of relational databases (RDBMS – Relational Database Management System). Relational database is concerned with data stored in several tables; thereby the information is divided into smaller parts. Till the seventies, the databases were made so that all data were stored in one table. Design and implementation of relational database requires lot more efforts than the creating ordinary database. These difficulties are appreciated by obtaining lot more stable database with better integrity. Last but not least we have to mention the possibility of shareable access. Integration of PHP and MySQL became the web site really dynamic. Communication between script and database proceeds this way (Fig. 1). Script PHP request the database server for requested data, the server provides them and these are send to user who ordered the primary requirement.

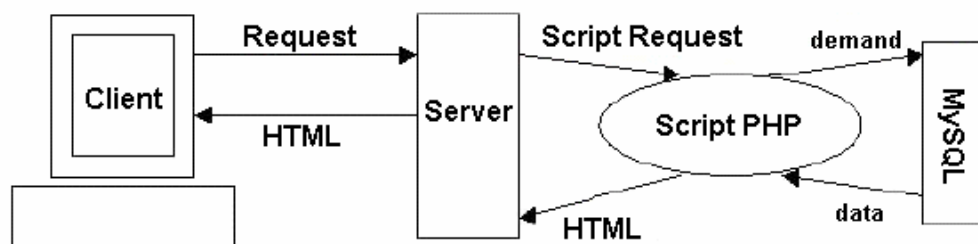


Fig. 2. MySQL Function Principle

MySQL software consists of some parts: server (daemon mysqld, which starts and keep the database going), MySQL client (software which offers user interface for managing the server) and some other tools dedicated to service database and perform another purposes.

The MySQL system can contain up to 60 000 tables, which can hold as much as 5 billions rows.

System can work in some operating systems with size of tables up to 8 million terabytes (version 3.23 and newer).

1.4 JAVASCRIPT

JavaScript is relatively new scripting language specially made to supply needs of web applications. JavaScript is able to react on user initialized actions like for example form submit. This language is interpreted on client side (Fig. 3).

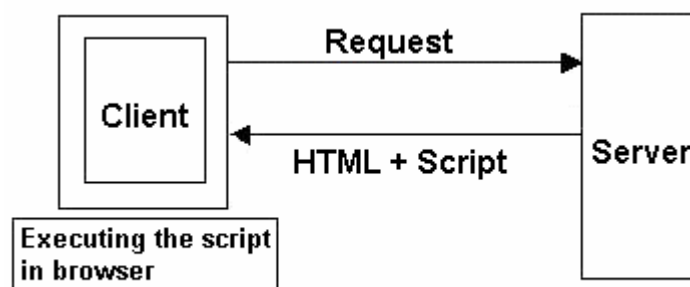


Fig. 3. JavaScript function principle

This is the difference compared to PHP or ASP.NET. There is not necessary to send data to server to verificate. That is why it is useful to use them at full quantities in cases which would have been by server executed. The main advantage of this procedure is first of all fastness: there is not necessary to send the request to server, execute it and send it back to client.

General disadvantage of this solusion is that all users would not have to have the JavaScript allowed (there is no browser without support of JavaScript but some users can have the JavaScript switched-off) because of this the data checking should do the server too.

JavaScripts can be inserted directly into the HTML pages. Inserting the skript into the HTML is performed by pair tag `<script language="JavaScript"></script>`. Everything placed in this tag is executed as JavaScript. In the case of using a script more than once it is recommended to save it into the external file (with filename extension `.js`). In place where we need to call the script we can just call this file and the script in it will be executed.

Java is a programming language, which is more complex than JavaScript. JavaScript was developed as an easy understandable language. The JavaScript programmers would not know too much. That is why the Java elements are not implemented into the JavaScript.

1.5 CSS

CSS was developed in the 1997. It is a set of methods, which are serve the graphic form of web applications. The short cut CSS means Cascading Style Sheets. Cascading styles, because it is possible to interlace the definitions of styles and valid is the last definition.

Using of cascading style sheets is very useful in making web sites by one simple reason. It is much easier to change the graphic style of sites and the formatting. CSS has more possibilities like option to set up the any or exact size of characters, automatous formatting of titles (all titles with same size and font color), possibility to place an object (text possibly) anywhere on sites.

CSS is possible to use in three ways.

1. Using the straight style. The style is written directly in the source text next to the formatted element by attribut style="...".
2. By the help of the stylesheet which is placed in the page heading. It is just a list of styles and there are the formatted objects written with their attributs.
3. The most often way how to use cascading style sheets is by using an external file. The external file has a .css filename extension and the stylesheet is stored in it. The site refers to this file by unpair tag LINK. The indisputable advance of using of an external file is the possibility of linking more sites to one file. Then these sites have all the same look.

Using of the Cascading Style Sheets has unfortunately some problems too. Every browser is interpreting the CSS differently. All browsers concur in basic things like font color and background color, font size, or used type font. Setting up the margins, spacing or positioning is more problematic. The site is presented in each browser the differently. The classic examples are the sites with debugged CSS for Microsoft Internet Explorer, which displayed in Mozilla is not looking the way the author imagine.



1.6 PSPAD

In creation of “eSamoobsluha” was used the universal free editor PSPad. This editor developed by Jan Fiala has many advances and qualities:

- work with projects
- FTP client - you can edit files directly from the web
- text difference with color-coded differences highlighted
- templates (HTML tags, scripts, code templates...)
- syntax highlighting auto set by file type
- auto correction
- intelligent internal HTML preview using IE and Mozilla
- integrated TiDy library for formatting and checking HTML code, conversion to CSS, XML, XHTML
- integrated free version of top CSS editor TopStyle Lite
- column block select, bookmarks, line numbers, ...
- reformat and compress HTML code, tags char case change
- spell checker
- internal web browser with APACHE support
- matching bracket highlighting
- and more...

The unique of this editor is that all these features and many more which the PSPad has are totally free. The program is still developing and upgrading by author.

1.7 PHPMYADMIN



PhpMyAdmin is a console, which provides the communication with database system MySQL. PhpMyAdmin is highly effective tool and it is ranked among the best instruments of this kind. It can manage a whole MySQL server (needs a super-user) as well as a single database. To accomplish the latter you'll need a properly set up MySQL user who can read/write only the desired database.

Currently phpMyAdmin can:

- create and drop databases
- create, copy, drop, rename and alter tables
- do table maintenance
- delete, edit and add fields
- execute any SQL-statement
- manage keys on fields
- load text files into tables
- export (*) data to CSV, XML and Latex formats
- administer multiple servers
- manage MySQL users and privileges
- create PDF graphics of your Database layout
- and more...

In creating of database for “Internetová Samoobsluha” was used the PhpMyAdmin version 2.6.4-pl2. The demands of this version are: PHP version 4.1.0 or newer, database system MySQL 3.23.32 or newer, internet browser of course too.

1.8 EMS MYSQL MANAGER 3

EMS MySQL Manager 3 is a high performance tool for MySQL® Database Server administration and development. SQL Manager for MySQL works with any MySQL versions from 3.23 to 5.06 and supports all of the latest MySQL features including views, stored procedures and functions, InnoDB foreign keys and so on. It offers plenty of powerful tools for experienced users to satisfy all their needs. SQL Manager for MySQL has a new state-of-the-art graphical user interface with well-described wizard system, so clear in use that even a newbie will not be confused with it.

Currently phpMyAdmin can:

- Full support of MySQL versions from 3.23 to 5.06
- New state-of-the-art graphical user interface
- Rapid database management and navigation
- Simple management of all MySQL objects
- Advanced data manipulation tools
- Access to MySQL Server through HTTP protocol
- Impressive data export and import capabilities

The EMS MySQL Manager 3 is a little bit faster and easier to use than phpMyAdmin but it has some restrictions. It does not have some important functions (problems with creating database for example) like phpMyAdmin. This was the reason of using both of them in cooperation for creating the web.

1.9 INTERNET BROWSERS

In developing of the web application was necessary to use the internet browsers. Internet browser is a program used to view internet pages. For reason of system compatibility guarantee was necessary to use several internet browsers. Besides of nowadays generally most used Microsoft Internet Explorer (version 6.0.2900.2180) were used browsers Mozilla FireFox (version 1.5.0.3) and Opera (version 7.54) from Opera Software ASA.

2 STRUCTURE OF WEB APPLICATION

2.1 DIRECTORY STRUCTURE

2.1.1 Describe of files and directories in root directory

The most important script files are placed in the root directory.

The files in the root directory are described in Table 1:

Table 1. List of files in root directory

Filename	Function
Script files:	
admin.php	Login section.
badlog.php	Script operating the bad login.
dataconnect.php	Script connecting the site to the database.
del.php	Script used for deleting logins.
delp.php	Script used for deleting articles.
detail.php	Section displaying the detail of single product.
down.php	Info line displayed in the bottom part.
formular.php	Registration form implemented into ireg.php.
index.php	Start page, the 1st page opened from the server
ireg.php	Section for registrating users.
jaknakupovat.php	Section with buying tutorial.
jazyk.php	Script storing the setting of language.
kontakt.php	Section with contact informations.
koupit.php	Section with summary view of goods in the basket.
login.php	Section for logging users on.
logout.php	Script serving logging users out.
main.php	Main part of index.php.
menu.php	Menu part included in the most of pages.
obchpod.php	Section with shopping regulations.
objednat.php	Section with final summary of goods before order.
onas.php	Section with informations about owner of e-shop.
prepocitat.php	Script used for re-count the goods quantity.
save.php	Script inserting new user into database from admin section.
savep.php	Script inserting new article into database.
titulek.php	Script finding the asked word in selected language in database.
ulozform.php	Script inserting new user into database from ireg.php section.
ulozobj.php	Script inserting new order into database.
upload.php	Script serving the picture uploads to server.
CSS files:	
admin.css	CSS file with stylesheet for admin.php
soubor.css	CSS file with stylesheet used almost at all pages.
Some pictures	Files used in graphical design in JPG and GIF format.

Next to the files the root directory includes the folder Pics too. In this folder are placed pictures of articles.

2.2 DATABASE STRUCTURE

The database contents 7 tables: tblkontakty, tblkategorie, tblkosiky, tblobjednavky, tblprodukty, tbltitulky and tbljazyk.

2.2.1 Structure and describe of table „tblkontakty“

Table „tblkontakty“ (Table 2) is used for storing data of registered users. The data are inserted to this table by registration form in ireg.php. The other way to insert, modify or delete the data is to use the form in the admin section by admin.php script. This section is accessible only for administrator or a user with permission to access this section.

Table 2. Structure of table “tblkontakty”

Field name	Field type	Size	Description
LogID	integer	4	User ID
Login	char	15	Login name
Heslo	char	15	Password
Jmeno	char	15	First name
Prijmeni	char	20	Last name
Ulice	char	25	Street address
Město	char	12	City
PSC	char	5	Zip/Postal Code
Email	char	30	Email address
Telefon	char	10	Phone

2.2.2 Structure and describe of table “tblkosiky”

In table “tblkosiky” (Table 3) are temporarily stored the counts of articles in baskets of registered users.

The baskets remain in here after user logout for easy retrieval on next login.

Table 3. Structure of table “tblkosiky”

Field name	Field type	Size	Default	Description
LogID	smallint	4	0	ID buying user
PolozkaID	char	4	0	Article Id
Ks	char	5	1	Pcs. of article

2.2.3 Structure and description of table „tblobjednavky“

In table “tblobjednavky” (Table 4) are stored the orders from users. These orders are inserted into this table after finishing the ordering process by customer (clicking on “objednat” button in “koupit” section). The orders can be inspected in admin section by administrator or another user with access permission for this section.

Table 4 . Structure of table “tblobjednavky”

Field name	Field type	Size	Default	Description
ObjID	integer	5	0	Order ID
LogID	integer	5	0	Ordering login ID
PolozkaID	integer	5	0	Ordered article ID
Datum	date	10	0	Date of order
Time	time	8	0	Time of order
Ks	integer	5	0	Pcs. of article

2.2.4 Structure and describe of table “tblprodukty”

Table “tblprodukty” (Table 5) is used for storing information about goods in e-shop. The only way to insert or modify the article data is to use the form in the admin section which uses savep.php script. This section is accessible only for administrator or a user with permission to access this section.

Table 5 Structure of table “tblprodukty”

Field name	Field type	Size	Default	Description
ID	smallint	5		table index
Nazev	char	25	Bezjmena	title
Vyrobce	char	25	Neurčen	producer
KatID	char	25	Nezařazeno	category
Podkat	char	16	Nezařazeno	subcategory
Popis	char	200	Bez popisu	description
Cena	float	12	666	price
Foto	char	25	pNA.jpg	photo 1 of article

2.2.5 Structure and describe of table “tblkategorie”

Table “tblkategorie” (Table 6) is used for storing names of categories in e-shop. The only way to insert or modify the categories is to use the form in the admin section which uses the savep.php script. The category is automatically created when the category mentioned in product information does not exist. And if no product has the category mentioned in its data, the category is deleted. The admin section is accessible only for administrator or a user with permission to access this section.

Table 6 Structure of table “tblkategorie”

Field name	Field type	Size	Default	Description
KatID	integer	4		Category index
Nazev	varchar	20		Category title

2.2.6 Structure and describe of table “tbltitulky”

The table “tbltitulky” (Table 7) perform task of easy site language switching. There are stored all words appearing on e-shop in a few languages. Administrator can then easily switch the language by one clicking on the whole site. It is necessary to supply the image buttons by pictures in appropriate language in the root directory (files: prepocitat.gif, pokračovatvnakupu.gif, objednat.gif).

Table 7 Structure of table “tbltitulky”

Field name	Field type	Size	Default	Description
ID	varchar	20	0	Word ID
English	varchar	80	0	Word in Czech
Czech	varchar	80	0	Word in English
German	varchar	80	0	Word in German
IDtxt	varchar	20	0	Universal word

2.2.7 Structure and describe of table “tbljazyk”

The table “tbljazyk” (Table 8) is used for storing the kind of language chosen by administrator in “Admin” section. This entry is used for automatic selection of language after first download the data from server by browser. To set up the starting language is able only the administrator in the admin section.

Table 8 Structure of table “tbljazyk”

Field name	Field type	Size	Default	Description
Jazyk	varchar	10	0	Chosen language

2.2.8 Data types applied in tables

The most often used data type in tables of e-shop database is type varchar. This data type is designated for storing the strings. It has a size of 0-255 characters. Its advance against the char data type is that the values stored in type varchar are large like they would be stored separately. On the other hand the data stored in char data type are stored as a string with same size at all time. The string is completed with spaces automatically. This shows that the fields with varchar data type occupy fewer places on the disk. For indexes placed in

tables was chosen data type int. This type offers numbers in the range from -2 147 483 648 to 2 147 483 647, or in unsigned mode from 0 to 4 294 967 295. The size is 4 bytes.

II. PRACTICAL PART

3 CREATION OF WEB APPLICATION

3.1 PHP

The whole e-shop is programmed in PHP. The main file is called index.php. Most of actions in the “eSamoobsluha” are placed in this file.

PHP works on Microsoft Windows, UNIX and many of its versions and Macintosh systems. PHP is the server technology. It means that all written in PHP is executed on the server side, not client. Big part of the system functions is served by inserting more files by function include.

3.1.1 Used PHP Functions

In programming the e-shop were used some functions of PHP language and functions created in JavaScript too. Next table (Table 9) shows the list of some functions used in creating.

Table 9 List of used functions

Function name	Use
session_start()	Session start
session_destroy()	Session destroy
mysql_connect()	Connecting to database
mysql_select_db()	Selecting database
mysql_fetch_row()	Extract field from database in index ordered columns
mysql_db_query()	Forwarding query to database
is_uploaded_file()	Checking if the file is uploaded
move_uploaded_file()	Moving the uploaded file to the storing directory

3.2 JAVASCRIPT

In creating the “eSamoobsluha” was used the scripting language JavaScript. The JavaScript is a simple programming language, which can be interpreted on client side. It is very useful to use it for checking the entered data in forms. It is not necessary to send the data to server and check them on it. The application is faster because of this.

In e-shop the scripts are used just for checking the entered fields in the forms if they are right. If the user filling the form forgets to fill some fields and submit the form, the message will appear with information about not filled fields.

3.3 CASCADING STYLES

The design of e-shop is using the advances of Cascading Style Sheets (CSS). Cascading Style Sheets are used for designing the graphical interface and formatting web applications. Graphical interface of “esamoobsluha” is completely designed by CSS. The strength of this technology is consists in that the look of the site can be easily changed by editing some lines of source code. The web consists from two external CSS files: admin.css (used for designing admin section) and soubor.css (for designing the rest of web-site).

4 USERS OF THE “ESAMOOSLUHA”

The “eSamoobsluha” can be used in the three ways: not logged, logged as a customer or as a user with an administrating rights.

4.1 NOT LOGGED USER

4.1.1 Unknown visitor

An unknown visitor is a user who is not logged in system. This user can browse the “eSamoobsluha”, view the goods, but the function “Koupit” in detail section is not allowed. Not logged user is not able to buy any article in the e-shop.

4.2 LOGGED USER

4.2.1 Customer

Customer is a user who is logged in the system on his account login with secret password. There is only way to get these account login and password through the registration form in registration section. After registration and logging in the system the user gets a new functions „koupit“ in section „Detail“ and „Objednat“ in section „Koupit“.

4.2.2 Administrator

Administrator is a user with a special login ID (for example 666) who has the special rights for changing the database and whole e-shop.

5 WORK IN THE “ESAMOOSLUHA”

This practical part is divided into three subsections specified by accessibility of user to several sections on e-shop: Not Logged, Logged as a customer and Logged as an administrator

5.1 NOT LOGGED

When the internet user types an internet address of the eSamoobsluha the start page (Fig. 4) the index.php will appear.

5.1.1 Browsing the E-Shop



Fig. 4. Start page - index.php

In the top left corner is a log status which says if a user is logged or not (Fig. 5-6). The link “Odhlásit” next to the status is used for logging out of the system. This link is showed when a user is logged in.

A rectangular box with a blue border and a light blue background. Inside, the text "Uživatel: Nepřihlášen" is displayed in a bold, black, sans-serif font.

Fig. 5. Not logged user

A rectangular box with a blue border and a light blue background. Inside, the text "Uživatel: johnies Odhlásit" is displayed in a bold, black, sans-serif font.

Fig. 6. Logged user

Below the title bar is placed the menu called „minimenu“(Fig. 7-9). There are some options in minimenu: „Home, Jak nakupovat, Obchodní podmínky, Registrace, Přihlášení, Kontakt, O nás“.

The use of the “minimenu” is the easiest way how to get into another section for example important sections designated for registration and login.


A horizontal menu bar with a black border and a white background. It contains the following items: Home, Jak nakupovat, Obchodní podmínky, Registrace, Přihlášení, Kontakt, O nás. All items are in a standard black font.

Fig. 7. Minimenu: inactive category

A horizontal menu bar with a black border and a white background. It contains the following items: Home, Jak nakupovat, Obchodní podmínky, Registrace, Login, Kontakt, O nás. The word "Registrace" is highlighted with a green background.

Fig. 8. Minimenu: chosen category

A horizontal menu bar with a black border and a white background. It contains the following items: Home, Jak nakupovat, Obchodní podmínky, Registrace, Login, Kontakt, O nás. The word "Registrace" is highlighted with an orange background.

Fig. 9. Minimenu: active category

User has the only way how to get into the shopping section. The way is through the menu (Fig. 10) on the left side by choosing and clicking on one of the category. When moving the pointer over the categories in menu the categories will be marked by blue bar. After clicking on category the page will change and the appropriate category link in menu will be marked by red bar so the user knows where he is at every moment.

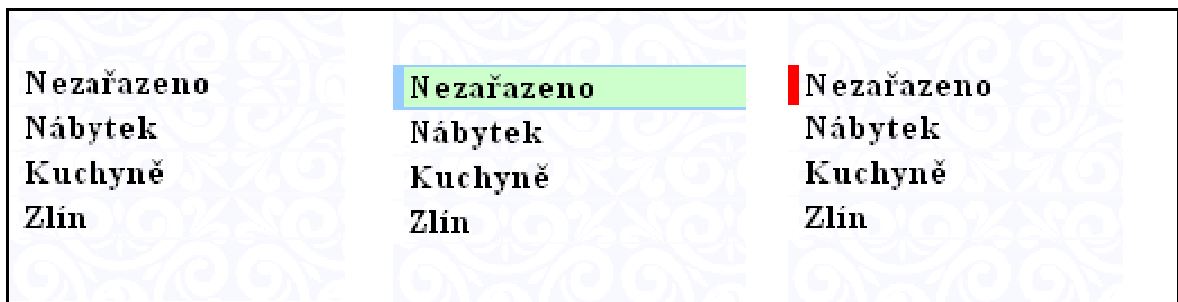


Fig. 10. Menu: inactive, chosen category, active category

The user is getting a view of articles in chosen category (Fig. 11). On the top of the middle window is a name of viewed category and under this title is the picture list articles in chosen category.

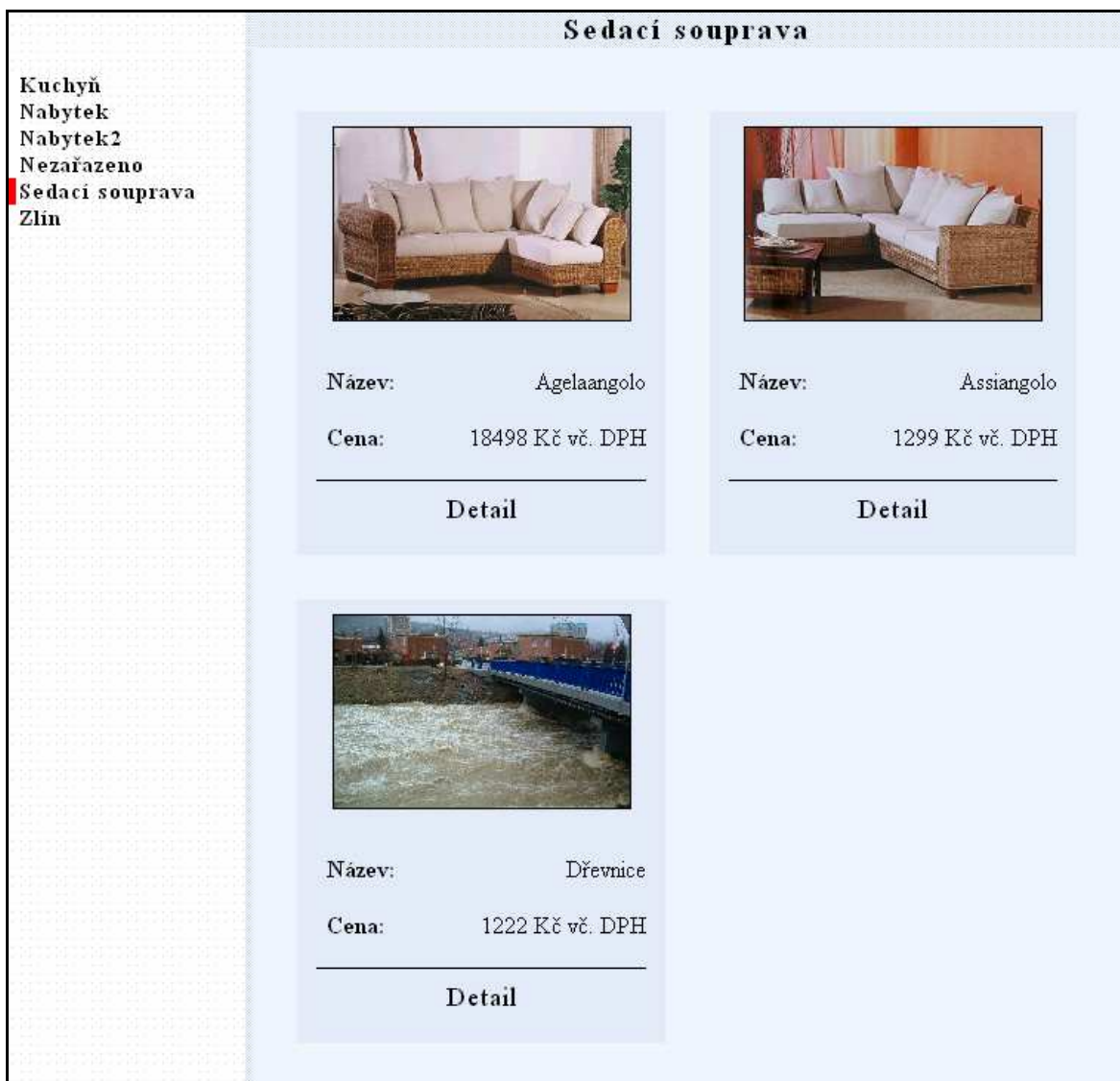


Fig. 11. Window with picture list of articles in chosen category

Each article has a picture, short describe in its frame and button „Detail“. After pushing this button the user will get to „Detail“ (Fig. 12) section with more detailed describe of chosen item.



Fig. 12. Detail of an article for not logged user

In the top of the window is a title of a chosen item. Below the title in the center of window are photo and punctual describe of product. On the screen is no button for buying or inserting an item into the basket because the user is not logged and has not allowed enter to section „Koupit“. The user has to be logged: 5.1.2 Log in the application

5.1.2 Log in the application

It is necessary to be logged in to be able to buy some products in E-Samoobsluha. How to get into section „Login“(Fig 13.) from the minimenu for login: 5.1.1 Browsing the E-Shop.

Fig. 13. Login section

There are two form fields for login and password in the middle of the window. The user gets a new option (access to the section „Koupit“) if enters values obtained in registration process: 5.1.3 Registration of the new user.

5.1.3 Registration of the new user

Fig. 14. Registration section

There is (Fig. 14) an informational board on the left side helping the user to orientate and in the right part is a registrational form used for entering the information of the user in registration process. There is implemented the checking process of the form which informs

the customer about wrong entries (for example the phone number has to be a number not a word). The submitting the form leads to store the entered user data into database and this way registered user is able to log in the “eSamoobsluha” (See 5.1.2 Log in the application).

5.1.4 Multilanguage mutation



Fig. 15. Changing the language

The user is able to change the language of the “eSamoobsluha” by one click on the flag bar in the top right corner. This step will change language in the whole e-shop except the names and describes of the articles contained in the database of the eSamoobsluha. The language of the e-shop on the start depends on the setting of the initial language in the “Admin” section (see 5.3.3).



Fig. 16. Screen example in different languages

5.2 USER LOGGED AS A CUSTOMER

The logged user has an added button “Koupit” in the section “Detail” (Fig. 17). The informations about selected article are displayed the same way as in the case of unlogged user.



Fig. 17. Detail of an article for logged user

If the customer give the button a press the page will change to the view of basket contents (Fig 18.).In the left side is placed the optionable tutorial for changing and deleting articles in basket.In the middle of window „Basket contents“ is a list of articles in selection with some data belonged to the appropriate product. There are displayed these informations in the table: number, title, price per item, pcs, and total price. The user can add and delete the articles in his basket. He can change the numbers of these articles in basket too. The functions in basket section count the goods and write out the price of each and the total price immediately (button “Přepočítat”). The user can go back to categories section in the middle of shopping process for adding more goods(“Pokračovat v nákupu” Fig 18.).

♦ Chcete-li změnit počet kusů u položek, proveďte tyto změny v jednotlivých rádcích a zmáčkněte tlačítko

Obsah košíku						
Č.p.	Produkt	Cena/Ks	Ks	Cena	DPH	
4	Agelaangolo	18498,-	<input type="text" value="1"/>	18498	+19%	✗
6	Křeslo	9999,-	<input type="text" value="7"/>	69993	+19%	✗
40	Skříň	666,-	<input type="text" value="3"/>	1998	+19%	✗
25	Esperanto	2243,-	<input type="text" value="1"/>	2243	+19%	✗
38	Sedačka	0,-	<input type="text" value="1"/>	0	+19%	✗
Cena celkem (bez DPH)				92732,-	+19%	
DPH				17619	Kč	
Cena celkem (včetně DPH)				110351,-	Kč	

Fig. 18. Basket contents

After completing the shopping the user can use the button „Objednat”(Fig 18.) for finishing the order.

Objednávka dokončena	
Kuchyň Nabytek Nabytek2 Nezařazeno Sedací souprava Zlín	<p>Objednávka byla uložena do databáze a bude vyřízena v nejbližším termínu.</p> <p>Zpět na domovskou stránku E-Samoobsluhy</p>

Fig. 19. Complete order

The window with informative message appears after completing the order (Fig. 19).

5.3 USER LOGGED AS AN ADMINISTRATOR

5.3.1 Section for administrating the site

If the user logs as an administrator in the e-shop the browser is automatically redirected to the admin section (Fig. 20).

The screenshot displays the admin interface with two main sections: 'Kontakty' (Contacts) and 'Produkty' (Products). The 'Kontakty' section includes a list of users (admin, Jiricek, Johnies, mira, novak) and a form to 'Založit nový účet zákazníka' (Create new customer account) with fields for Login, Heslo, Jméno, Příjmení, Ulice, Město, PSČ, E-Mail, and Telefon. The 'Produkty' section includes a list of products (Zlín, Dřevnice, Zátopa, Nezařazeno, Agelaangolo, Assiangol, Esperanto, Nábytek, Esperanto, Králík, Křeslo, Kuchyně, Sedačka) and a form to 'Vytvořit nový produkt' (Create new product) with fields for Název, Výrobce, Kategorie, Doplnit, Popis, Cena, and Foto. Both sections have 'Detail' and 'Uložit' buttons. The right sidebar contains 'Nový kontakt', 'Nový produkt', and language selection options.

Fig. 20. Admin section

The admin section is divided into two parts. The top part contains the informations about registered users. The administrator can easily show the contact in detail (Fig. 21).

The screenshot shows the 'Změnit údaje kontaktu' (Change contact data) form. The fields are filled with the following information:

Login:	Johnies
Heslo:	[Redacted]
Jméno:	Jan
Příjmení:	Palka
Ulice:	Kuty 1941
Město:	Zlín
PSČ:	76001
E-Mail:	gameplay@seznam.cz
Telefon:	775332850

Fig. 21. Viewing the contact data

He can change, add and delete the user contact in the database (Fig 22.). There is not allowed to delete the administrator account.

The screenshot shows two buttons: 'Uložit kontakt' (Save contact) and 'Smazat Johnies' (Delete Johnies). The 'Smazat Johnies' button is highlighted in red.

Fig. 22. Deleting and changing the user account

At the bottom are placed the informations about articles which are included in e-shop. The administrator is able to show the item in detail with illustration of the product (Fig 23.).



Změnit údaje produktu		
Nazev:	Agelaangolo	
Vyrobce:	AfroChair	
Kategorie:	Sedací souprava	Zlín
Podkat:	nezarazeno	
Popis	Agelaangolo je velmi pohodlná sedačka s opěradly z rákosí. Polštářky jsou vys...	
Cena:	18498	
Foto:	<input type="text"/>	Procházet...
		Použit původní sedacka2.jpg

Fig. 23. Viewing the article in detail

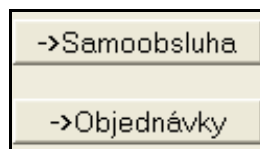
He can change these data. And it is also possible to add and delete whole article (Fig 24.).



Uložit produkt	Smazat Křeslo
----------------	---------------

Fig. 24. Deleting and changing the article

If the administrator wants to keep the original picture of the product he can use the function “Use the original”. In the left bottom part of the window are placed link buttons used for redirect into the start page and page for checking and executing the orders (Fig 25.).



->Samoobsluha
->Objednávky

Fig. 25. Links to start page and section for checking orders

5.3.2 Section for checking the orders

Uživatel	Datum	Produkt	Cena	Ks	Celková objednávka uživatele																										
1	2006-06-04	Křeslo	9999	2	Uživatel: Johnies(1)																										
1	2006-06-04	Esperanto	2243	1	Dodací adresa: Jan Palka Kuty 1941 76001 Zlín E-Mail: gameplay@seznam.cz Telefon: 775332850 <table border="1"> <thead> <tr> <th>Č.p.</th> <th>Název</th> <th>Ks</th> <th>Cena/Ks</th> <th>Cena celkem</th> </tr> </thead> <tbody> <tr> <td>52</td> <td>Esperanto</td> <td>1</td> <td>2243</td> <td>2243 Kč</td> </tr> <tr> <td>6</td> <td>Křeslo</td> <td>2</td> <td>9999</td> <td>19998 Kč</td> </tr> <tr> <td>4</td> <td>Agelaangolo</td> <td>1</td> <td>18498</td> <td>18498 Kč</td> </tr> <tr> <td colspan="4">Cena celkem</td> <td>40739 Kč</td> </tr> </tbody> </table>		Č.p.	Název	Ks	Cena/Ks	Cena celkem	52	Esperanto	1	2243	2243 Kč	6	Křeslo	2	9999	19998 Kč	4	Agelaangolo	1	18498	18498 Kč	Cena celkem				40739 Kč
Č.p.	Název	Ks	Cena/Ks	Cena celkem																											
52	Esperanto	1	2243	2243 Kč																											
6	Křeslo	2	9999	19998 Kč																											
4	Agelaangolo	1	18498	18498 Kč																											
Cena celkem				40739 Kč																											
17	2006-06-04	Assiangol	1299	5																											
1	2006-06-04	Agelaangolo	18498	1																											
					17 <input type="button" value="Vypsat"/> <input type="button" value="Obnovit"/> <input type="button" value="->Admin sekce"/> <input type="button" value="->eSamoobsluha"/>																										
					Objednávka vyřizena - Smazat																										

Fig. 26. Order section

The order section is directly accessible from the admin section (Fig 25.). This section contains the list of orders made in the e-shop in the left side (Fig. 27), the single order in detail in the middle and the usual link bar in the right side.

Uživatel	Datum	Produkt	Cena	Ks
1	2006-06-04	Křeslo	9999	2
1	2006-06-04	Esperanto	2243	1
17	2006-06-04	Assiangol	1299	5
1	2006-06-04	Agelaangolo	18498	1

Fig. 27. List of orders



Celková objednávka uživatele
Uživatel: novak(10002)

Dodací adresa:
Josef Novák
Dolní 123
76001 Zlín

E-Mail:
jn@seznam.cz

Telefon:
777123456

ID	Název	Ks	Cena/Ks	Cena
6	Křeslo	3	9999	29997 Kč
4	Agelaangolo 1	1	18498	18498 Kč
Celkem				48495 Kč

Objednávka vyřízena - Smazat

Fig. 28. Order in detail

The administrator can see the order made by one customer in detail and after execution delete it (Fig 28.).

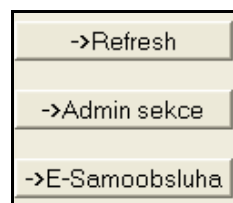


Fig. 29. Link bar

Usually the administrator can continue working by using the link bar (Fig 29.).

5.3.3 Setting of the starting language



Fig. 30. Changing the language

The administrator can choose the starting language of the “eSamoobsluha” by selection one choice in the flag bar on the right side below the button “New contact”. This step will provide displaying the texts in chosen language after every start of the eSamoobsluha.

CONCLUSION

This bachelory work is focused on the development of web based shop. The application is created for using in the regular Internet traffic. The system can be administrated by a general internet user without programming skills because of the easily usable web interface. The basic task points were fulfilled. The e-shop is programmed in the PHP scripting language. The MySQL technology was used for communication of the server with database and the graphic interface is fully designed by Cascading Style Sheets. The compatibility with various internet browsers is fulfilled.

System is divided into two sections: customer and administrator section. The customer can browse the e-shop and order goods offered here. The administrator is able to control entire web through the admin section. He can manage the user accounts and goods offered in the e-shop. Thanks to these features the e-shop is very flexible and easy controllable by administrator using the web interface.

This work theoretically describes PHP and SQL technologies and moreover it shows practical usage of internet dynamic web pages.

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THE LIST OF USED SYMBOLS AND ABBREVIATIONS

CSS	Cascading Style Sheets.
FTP	File Transfer Protocol.
HTML	HyperText Markup Language.
HTTP	HyperText Transfer Protocol.
PHP	Personal Home Page: HyperText Preprocessor.
SQL	Structured Query Language.
XML	Extensible Markup Language.
XHTML	Extensible HyperText Markup Language.
WWW	World Wide Web.

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