DESIGN AND DEVELOPMENT OF WEBSITES

Research presented to the Department of Multimedia – Faculty of Computer Science and Information Technolog

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As part of the requirements for a Bachelor's Degree in Computer Science by

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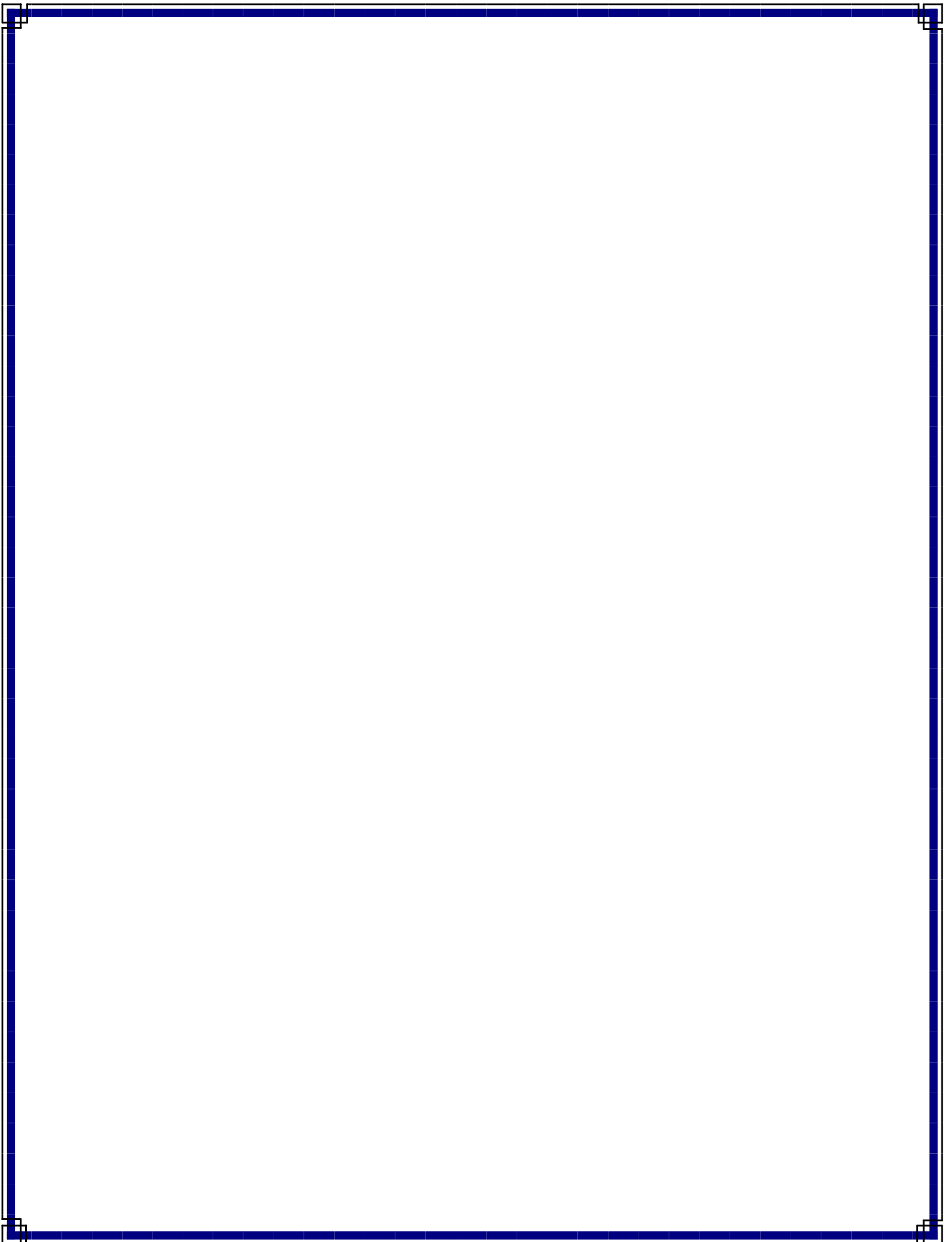
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بسم الله الرحمن الرحيم

قالو سبحانك لا علم لنا الا ما علمتنا انك انت العليم الحكيم

صدق الله العلي العظيم

شكر وتقدير

(من لم يشكر المخلوق لم يشكر الخالق)

بعد إكمال هذا البحث ولعد إتمام مسيرتي الدراسية وبعد كل ما تكبدته من جهد وعناء

لا يسعني إلى أن أشكر إمام زماني عليه الصلاة والسلام الذي خيره وتوفيقه علي نازل

والذي لولاه أنا لا شيء

وأشكر كل أساتذتي الذين طالما كانت أيديهم ممدودة بالعون والمساعدة

وبالخصوص الغالي الاستاذ محمد راجح

أشكر عائلتي التي ساندتني وشجعتني

وأشكر أصدقائي وأحبابي الذين قضيت معهم أجمل أيام حياتي

وأشكر كل من كان سبب في نجاحي في مسيرتي الدراسية

الإهداء

لابد لنا ونحن نخطو خطواتنا الأخيرة في الحياة الجامعية من وقفة نعود إلى أعوام قضيناها

في رحاب الجامعة مع أساتذتنا الكرام الذين قدموا لنا الكثير باذلين بذلك جهودا كبيرة

في بناء جيل الغد لتبعث الأمة من جديد ...

وقبل أن نمضي تقدم أسمى آيات الشكر والامتنان والتقدير والمحبة إلى الذين حملوا

أقدس رسالة في الحياة

إلى الذين مهدوا لنا طريق العلم والمعرفة

إلى جميع أساتذتنا الأفاضل

.......إلى الشموع التي ذابت في كبرياء

.... لتنير كل خطوة في دربنا

.... لتذلل كل عائق أمامنا

.... فكانوا رسلاً للعلم والأخلاق

.... شكراً لكم جميعاً

هل يستطيع أحد أن يشكر الشمس لأنها أضاءت الدنيا

لكني سأحاول رد جزء من جميلكم بأن أكون كما أردتموني

((إنسانية قبل أن أكون مهنية))

نشكركم جميعكم على جهودكم معنا

Contents

ABSTRACT

This Project goes through the process of creating a graphic design of a web page which includes determining all the components and how they can affect the visual outcome. The main task is to create a design plan for a website by creating images with an image editing software with the support of theoretical knowledge, end users' preferences, and creativity.

The aim is to create a modern design considering the responsive functions and the users' needs. The users' perspectives, needs, and habits are explored by interviewing companies supplied by the commissioner. The theoretical research contributes technical guidance on making choices in the design of a web page.

The designs were made with Adobe Photoshop, which was accessible at the Oulu University of Applied Sciences, as was the recorder used in the interviews. The images in the designs were chosen from the commissioner's existing website. The colours used in the designs were designated with the help of a colour wheel application.

This Project may be used by the commissioner for their webpage as well as anyone who is working with visual designs and looking for some theoretical explanations. The information covers many aspects of design as a webpage is a whole consisting of many components, such as text, layouts, and various types of graphics.

Chapter one

1.1 INTRODUCTION

This project is a web design project for UpFiras. The idea is to design the appearance and create mock-ups for the website of the commissioner's product, UpFiras. The design will include three different design versions in order to address the issue of responsive web design; different content and layout for different screen sizes (desktop, tablet, and mobile phones). This project will mainly concentrate on the graphical design aspects and responsive design. Information architecture and some aspects of code will be considered but only when necessary. The end product will be three images constructed with an image editing program; three different size images to show how the design will look on different screen sizes. There will also be several images for each screen size to show all parts of the pages.

The subject is related to information technology but there are also marketing aspects in visual design; visitors will be more likely to return to the site if it is aesthetically pleasing and gives a positive impression of the business. Since responsiveness is playing a major part in this design, it is current; most people browse the web with several different types of devices. If a website has poor usability and logic, it will have an undesirable effect on customers. The commissioner is a young company in the field of IT, it is important for them to have a website which portrays their knowhow and offering.

While the project topic is current, it also gives an opportunity to work and learn in many different ways. Often a thesis will have research, interviews, or a project to make a product but this thesis will be constructed of all three parts.

It will be challenging to confine the thesis in such a large and diverse field. The key is to concentrate on only the vital aspects for a

visual design. The text content and images will be provided by the commissioner so the content of the writing will not be a part of the design.

The web design project will be done with the user-centred design approach, which means that the design is guided by interviews of the target customers and their needs, expectations, and behaviours. This means that one part of the thesis will be a qualitative research, implemented to guide the design work. These contacts for the interviews will be provided by the commissioner. The interviews aim to find out what is the most valuable and interesting information for the customer and what they expect to find visiting the website. This will help organise the content, as only the most important information will be left for the smallest displays, which are mobile phones.

The questions to be answered are strictly related to design. The interviews aim to find perspective from the desirable visitors; what they expect and need to find and what are their habits when searching a new website. The questions dealing with the graphic design elements will be answered with theoretical research; colours, fonts, font sizes, images, and layouts.

- o What is the most valuable information for the visitor, what do they need to find?
- o What information does the visitor expects to find regarding the company or the product?
- o What colours would give a suitable image for the product and company?
- o What is likely to be the most common device for visitors to view the web page?
- o What type will be easy to read in each screen size?
- o What type of layout is easy to follow?

Chapter Two

2.1WEB DESIGN

web design is a process which includes a variety of different disciplines such as graphic design, information design, interface design, document production, scripting and programming, and multimedia. Allsop wrote in his article that the control which designers are used to having in the print medium is actually creating an unnecessary limitation for web design. He encourages designers to accept the lack of limitations and design for flexibility and aim for pages which are accessible for everyone.

2.1.1Elements of Web Design

The web displays visual information and it is the graphic designer who decides on which type, colour, layouts, or graphics are used. The industry's standard tool for design is Adobe Photoshop. also mentions that a good method for beginning the design process is creating mock-ups with an image editing program, such as Adobe Photoshop. Multimedia content commonly seen on websites includes audio, video, animations, and Flash movies .

Information design as a concept refers to how the content is organised and common tools for this design process are flow charts and diagrams. A flow chart may be useful in this case to define the path through which the visitor would find more information if interested. The difference between graphic design and interface design is that the first deals with what the page looks like,

as the latter deals with how the page functions. By beginning the design with designing the information architechture and creating a sort of blueprint (a process of breaking the content into separate parts and then organising it into a logical structure) the designer will have a clear picture of what to do See figure 1.
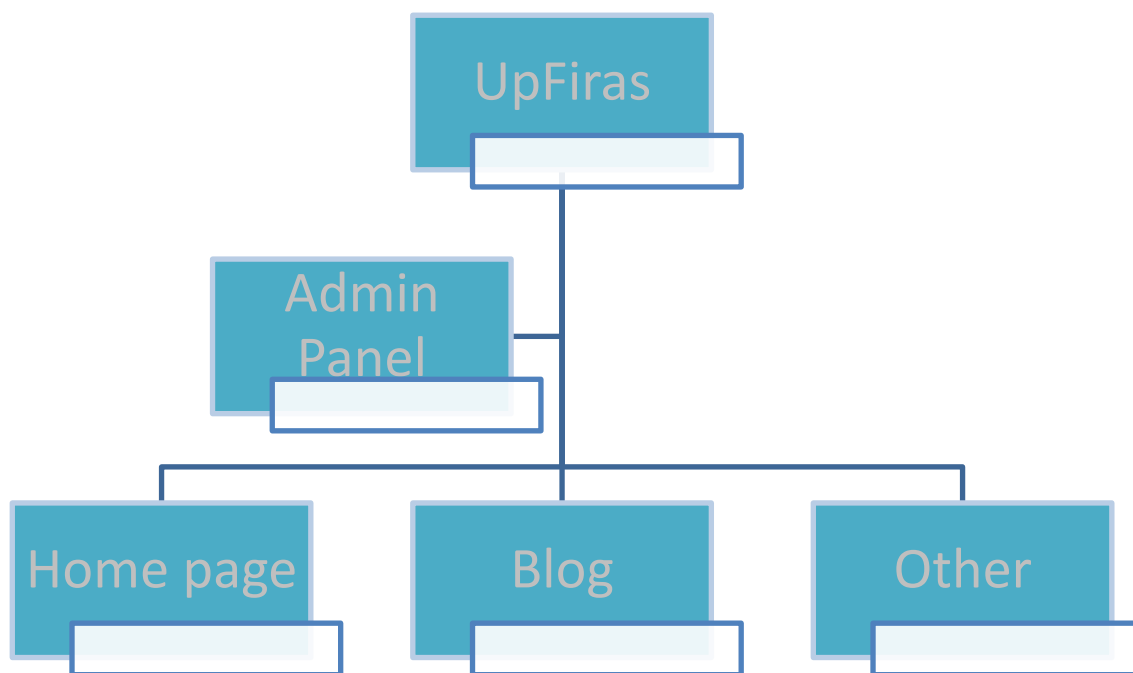
Figure 1. Site map

The document creation process may be defined as the process of creating and troubleshooting documents needed in a website, which requires knowledge of HTML. For designing the visual aspects it is not necessary to know how HTML works but it may help to understand what possibilities and challenges it brings. Web programmers produce forms, dynamic content, and interactivity for web pages. These advanced web functionalities are produced by scripting and programming. While they may be important parts of a web page, they do not play a vital part in the design of the visual elements.

2.1.2 Anatomy of a Web page

Web pages are created with HTML text files, which contain only letters, numbers and symbols. These files are known as the source documents. HTML stands for Hyper Text Markup Language and it is a language created for making websites. XHTML (the X stands for eXtensible) is basically an updated version of HTML with stricter rules; both are used to describe content of a web page and they may be referred to together as (X)HTML Allsop points out that HTML should not be used as the main tool for visual presentation and suggests using classes as well as style sheets. In XHTML designers may create various different types of documents which is declared with DOCTYPE (short for document type and always written in capital letters) at the beginning of the file. The chosen DOCTYPE informs the browser which version of HTML or XHTML the author is using, which informs them how to handle the file.

Websites can be accessed with graphical or desktop browsers, which are basically software products that display the information in the HTML documents visually,

In a window on the computer screen.In 2014, the most popular browser has been Google Chrome with the percentage of users being around 60%, coming in second is Mozilla Firefox with around 25%, and in third place comes the decreasingly popular Internet explorer with percentages of about 10%. The fourth place goes to Safari with about 4% and the fith to Opera at about 1.8%. Browsers which counted for less than 0.5% were not listed on the website.

For creating a structure in a web page, the DIV and SPAN elements can be useful. They are used for modifying HTML together with CSS to divide the page into several sections. The elements can be given an ID or CLASS attribute, which gives them names. Those names can be referred to in the CSS files individually. The difference between ID and CLASS is that the former may only be used once, whereas the latter may be used several times on one page.

CSS stands for Cascading Style Sheets, it is a document type used for modifying the appearance of the content on a website. CSS files are supported by all modern browsers; they are also the official standard file types for managing text and page layouts. One CSS document can be used to modify several separate pages at once and they can also be used for controlling the content shown on different devices. Using HTML tags for setting visual values such as fonts may increase the badwith required for viewing the page so it is considered a bad option .

Consistency between all pages is important; they ought to have a similar look and navigation system . Properly used style sheets do not control the web page's appearance and they should not be used for conveying information. CSS code should give the browser a suggestion for an appearance, in which case the pages will only look a little plain without compromising accessibility in browsers which do not support the CSS files.

2.1.3 Responsive design

The three main elements of web design are a grid based layout, images and media, and media queries. The basic idea is to make a design which adapts, or in other words responds to the constraints which the browser windows or devices set. Adaptability regarding to web design means that the web pages need to be accessible with any browser, platform, or screen. A good place to begin the design is considering what the page is meant to do, instead of what the page should look like. In conclusion the web designer needs to write a code considering all possible visitors and their devices.

Responsive web design was first defined by Ethan Marcotte as a design which responds to user's needs; the layout changes so that for example on mobile phones the user would only see one column, while a tablet will show two With formulas the page's layouts can be made into proportionally functioning grids; combinations of rows and columns, which are expressed as proportions of their element instead of pixels. Instead of writing pixel values in the CSS files,

the designer may express the widths in relative terms, and as a result the grid will adjust itself according to the user's screen. Another perspective is that grids are used for organising content and creating hierarchy by grouping information and elements Images can also be flexible. Modern browsers resize images proportionally which keeps the image ratio as it should be. As the browser window sizes change, the image may change size so that it is limited by the container in which it is placed in the grid's layout.

The W3C (The World Wide Web Consortium) defined a list of different media types in CSS which are tailored to answer the problems of different browsing tools. This means that a device will ignore other CSS lines and only reads to one which definition it fits. These media types include: all, braille, embossed, handheld, print, projection, screen, speech, tty, and tv. There should be different options available, since people may not prefer to read online and printing information should be an easy option, especially when there are large amounts of pages and information.

Media queries identify a device's and browsers' physical characteristics as well as their media types. The first criteria in the CSS will specify a media type. The second part defines the query, which is commonly the name of a feature with a related value, such as the minimum width of the device's screen. Most browsers support media queries, and JavaScript offers solutions for the older ones which do not comply. CSS media queries may be used for assigning different stylesheets for different browser window sizes, and not only according to the screen width but also the orientation of the device (landscape or portrait)

2.2 WEB TESTING PLAN

      Web application testing is software testing which is necessary to be performed to have a successful website launching on the Internet. The main goal of the testing is to identify and further repair harmful bugs which can be achieved using various web application testing techniques. The most usable and important web application testing techniques are demonstrated in Figure 3.
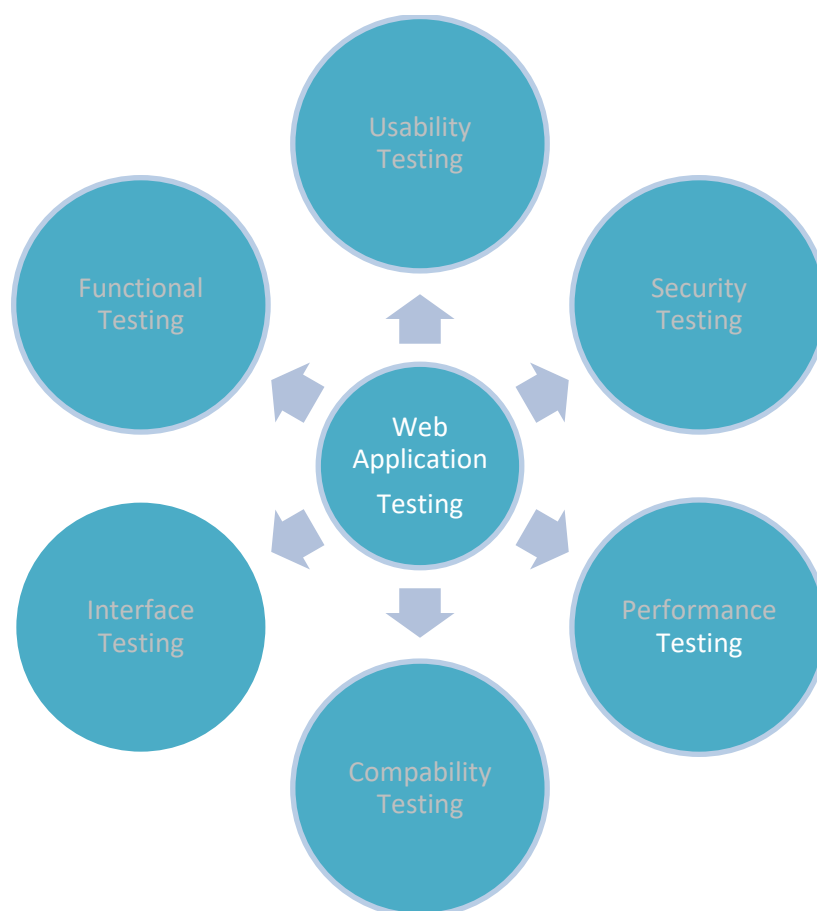

Figure 3. Web application testing techniques

Specifically, the functional testing technique requires verification of the weblinks, forms and cookies . Usability testing includes checking of the navigation and controls, content checking and user intuition capability. Interface testing verifies the interface and the data flow from one system to another. Compatibility testing performs the web application suitability with different operation systems, browsers and devices. Performance testing is the verification of the server response time and throughput under various load conditions. And finally, security testing checks the security of the web applications . To structure the process of bugs tracking, previously described Zoho software was applied, allowing to designate the bug location, status, classification and to determine the time frame for the bug correction solution.

The full web application test plan is available in Appendix 1. Appendix 1 presents the first version of the test plan. The test plan is a document detailing the objectives, internal beta team, and processes for a specific beta test for a web application product. Or buculum web application test plan text documents and tracks the necessary information required to effectively define the approach for testing of the product within the project.

2.3 GRAPHIC DESIGN

The Web presents information visually so as a medium it requires attention to presentation and design. It is the graphic designer who needs to make decisions regarding the graphics, type, colours, and layouts; basically everything that can be seen on a website. The graphic designer doesn't necessarily have to know how to do programming as it can be outsourced. Knowing how to create and edit graphics is necessary so a graphic designer must at the very least learn how to use some basic image editing software. Commonly used graphics software includes such programs as Adobe Photoshop (for image editing and creation, in general a must in for professional designers) and Adobe Illustrator (a vector drawing program mostly used for illustrations). A graphic designer communicates a concept or a message visually, and communication skills are a fundamental aspect of the problem solving.

2.3.1 Layout

There are various ways to create layouts but in general they are made with CSS. There are three main ways to create a layout; liquid (adjusting size according to the browser window size), fixed (the content is a specific size and does not alter), and elastic (some areas change in size when the text size is altered). Using any option may work, the choice may vary according to the type of content on the web page.. A design grid helps to organize a website, it builds up a system of columns, borders, and sections into which content can be placed .

One way to balance the design is by considering the weight of the elements; the larger parts with the main content weigh more.

In a design with symmetrical balance the weight seems evenly distributed on the site, whereas in an asymmetrical design there may be a larger element which is not balanced by smaller sections and the outlook is disproportionate. Whitespace, also known as negative space, is the area between elements on a page. Leaving space around an element is a way of drawing the viewers' eyes to what is important by separating them from the rest. It is also used for generally organising content into separate parts to clarify the structure. The Golden Ratio has been defined as aesthetically pleasing, due to its visual balance. If a website is divided into three sections, two of the columns should be the main content and the one third should be for the rest, such as navigation.

2.3.2 Colures

Colours have an effect on human emotions so in design work it is important to consider what emotions the site creates in viewers; strong colours result in strong reactions. Related to colours, saturation of a colour indicates its brightness or darkness and using dark colours in a web site may appear heavy. Colours may present visual identity and have functional attributes such as drawing attention, relying only on colour to bring across a message may not be a good idea However, colours can be a more subtle way to convey information than graphic images.

Accessibility issues may arise with designing colours; one option for avoiding them would be to use style sheets instead of HTML elements when possible. In CSS colours are indicated with hexadecimal values to inform the browser how much red, green, and blue to display. These values can be found on several sites on the internet. Computers display colours using RGB (red, green, and blue), the codes and names by which colours may be used in HTML and CSS can easily be found

listed on various websites with search engines. It may be worth pointing out that

the colours will not always appear the same on different devices and monitors, and accepting the fact may be all a designer can do. In addition to physical (colour blindness) and environmental characteristics, the viewer may have a different cultural perspective affecting the way colours are seen or interpreted.

Colours make a great difference in how a design is perceived by viewers and there are a lot of web sites offering tools for determining the right colours. When choosing the colours in a design, the colour wheel may be a useful tool. It is a diagram showing a range colours and the relations between them. The main colours are red, green, and blue; the secondary colours are yellow, cyan, and magenta. Colours on opposite sides of this circle are referred to as complimentary colours, as they appear well together. They can be used to create colour schemes, which are collections of colours that look aesthetically pleasing together. The base colour of the website should represent the chosen theme, if there is one. The rest of the colours will be chosen to suit the base colour. In colour schemes there are often three colours, which are an equal distance from each other on the colour wheel. However, if there are four base colours, it is called a tetradic color scheme. In such cases there are four colours in pairs on opposite sides of the colour wheel. There are basic principles with placing colors. Using contrasting colours next to each other divides the layout and creates borders. Using the most dominant colour in one area emphasizes it.

Chapter Three

3.1 FRONT-END WEBSITE DEVELOPMENT

Considering the customer needs and modern capabilities of information technology industry, it was decided to use a software framework for the website front-end development. Object-oriented frameworks provide high productivity and shorter time-to market for the development of object-oriented applications which is achieved through design and code reuse.

The front-end framework definition and types were described in Chapter 2. Considering the described framework specifications and the Or buculum web application project needs, it was decided to use the CSS front-end framework. Figure 6 represents a comparison of five most starred front-end frameworks that were introduced in Chapter 2.

According to this graph, Bootstrap has been in the leading position for the last five years.

3.1.1 Configuring Bootstrap

Bootstrap is a free and open-source CSS front-end web framework for websites and web application design. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. Unlike many web frameworks, it concerns itself with front-end development only. Therefore, considering the Orbuculum web application demonstration solution this front-end framework was selected for the development of the website.

Bootstrap has numerous professional templates that can serve as a basis for development and be customized according to the project needs. Knowing the popularity of mobile device usage, practically the first and principal factor choosing a template must be its adaptability with both mobile devices and computers. Figure 7 demonstrates the dynamics of mobile-broadband subscriptions during last five years with more than 20% annual growth and expectations to reach 4,3 billion globally by end 2017.

Figure 1. The Power of Bootstrap

Thus, to develop a mobile first website it was decided to choose a mobile-first website template based on the Bootstrap framework. Bootstrap has responsive web design that is an approach to web design which makes web pages render well on a variety of devices and window or screen sizes. Different templates available in the Wrap Bootstrap marketplace were screened and evaluated for their intuitive, flexible and modern design. Finally, a short list of several templates was presented to the customer and the "Semantic - Minimal Portfolio Template" was accepted with a further license purchase.

3.1.2 Designing Admin Panel

A dashboard, in website administration, is typically the index page of the control panel for a website's content management system. Examples include that distributed with the popular blogging software WordPress, and in the project management website Basecamp.

A dashboard typically indicates items which require urgent actions at the top of the page, moving into less important statistics at the bottom. Dashboard is a design to show important data in more enhanced way.

3.1.3 Admin Registration System

is a user of a website, program, or other system who has previously registered. Registered users normally provide some sort of credentials (such as a username or e-mail address, and a password) to the system in order to prove their identity: this is known as logging in. Systems intended for use by the general public often allow any user to register simply by selecting a register or sign up function and providing these credentials for the first time. Registered users may be granted privileges beyond those granted to unregistered users.
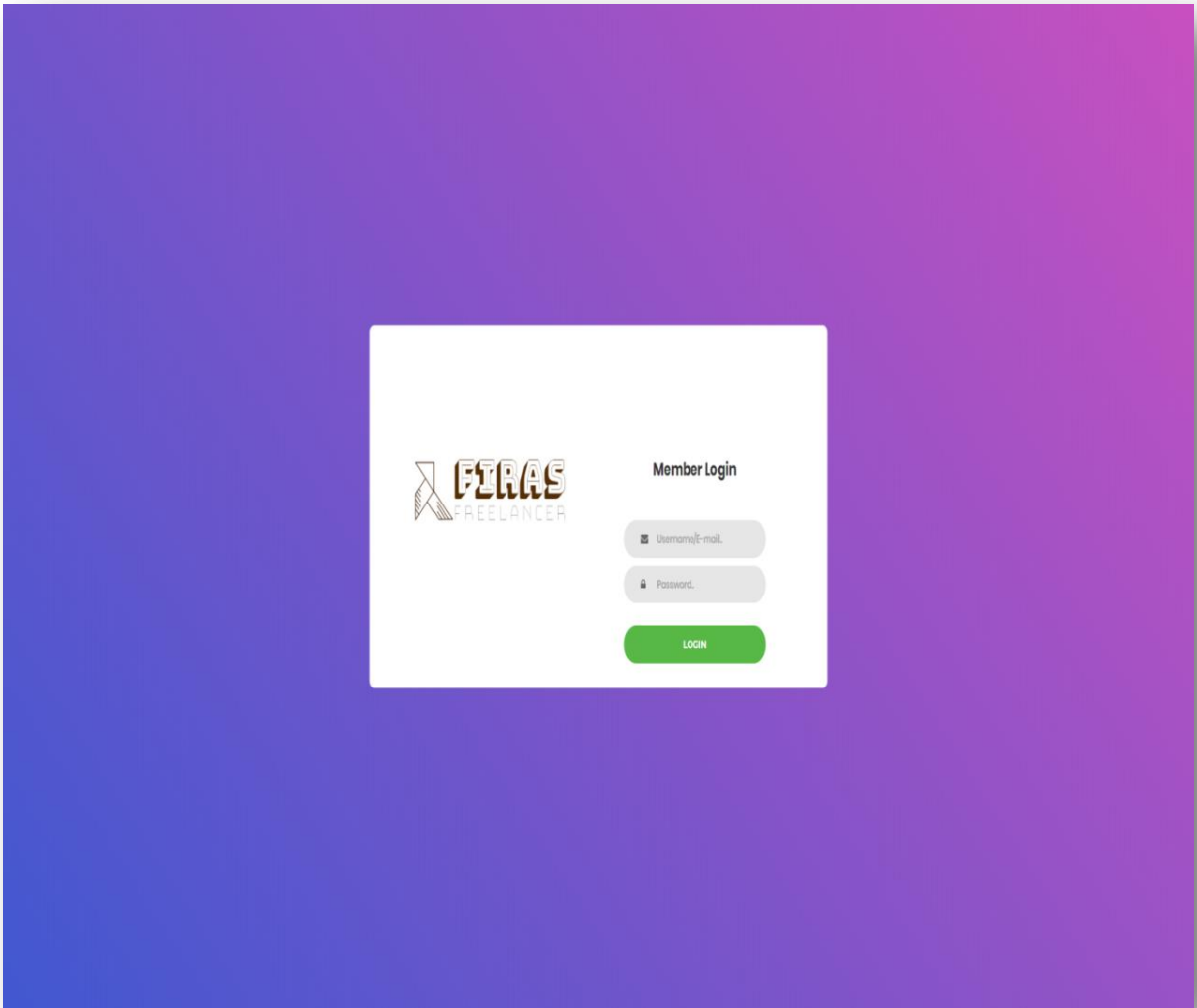
Figure 2. The Login

User registration and login enables a system to personalize itself. For example, a website might display a welcome banner with the user's name and change its appearance or behavior according to preferences indicated by the user. The system may also allow a logged-in user to

send and receive messages, and to view and modify personal files or other information.

Registration necessarily provides more personal information to a system than it would otherwise have. Even if the credentials used are otherwise meaningless, the system can distinguish a logged-in user from other users, and might use this property to store a history of users' actions or activity, possibly without their knowledge or consent. While many systems have privacy policies, depending on the nature of the system, a user might not have any way of knowing for certain exactly what information is stored, how it is used, and with whom, if anyone, it is shared. A system could even sell information it has gathered on its users to third parties for advertising or other purposes. The subject of systems' transparency in this regard is one of ongoing debate.

3.2 Content Management System (CMS)

A content management system (CMS) manages the creation and modification of digital content. It typically supports multiple users in a collaborative environment.

CMS features vary widely. Most CMSs include Web-based publishing, format management, history editing and version control, indexing, search, and retrieval. By their nature, content management systems support the separation of content and presentation.

A web content management system (WCM or WCMS) is a CMS designed to support the management of the content of Web pages. Most popular CMSs are also WCMSs. Web content includes text and embedded graphics, photos, video, audio, maps, and program code (such as for applications) that displays content or interacts with the user.

Such a content management system (CMS) typically has two major components. A content management application (CMA) is the front-end user interface that allows a user, even with limited expertise, to add, modify, and remove content from a website without the intervention of a webmaster. A content delivery application (CDA) compiles that information and updates the website. Digital asset management systems are another type of CMS. They manage content with clearly defined author or ownership, such as documents, movies, pictures, phone numbers, and scientific data. Companies also use CMSs to store, control, revise, and publish documentation.
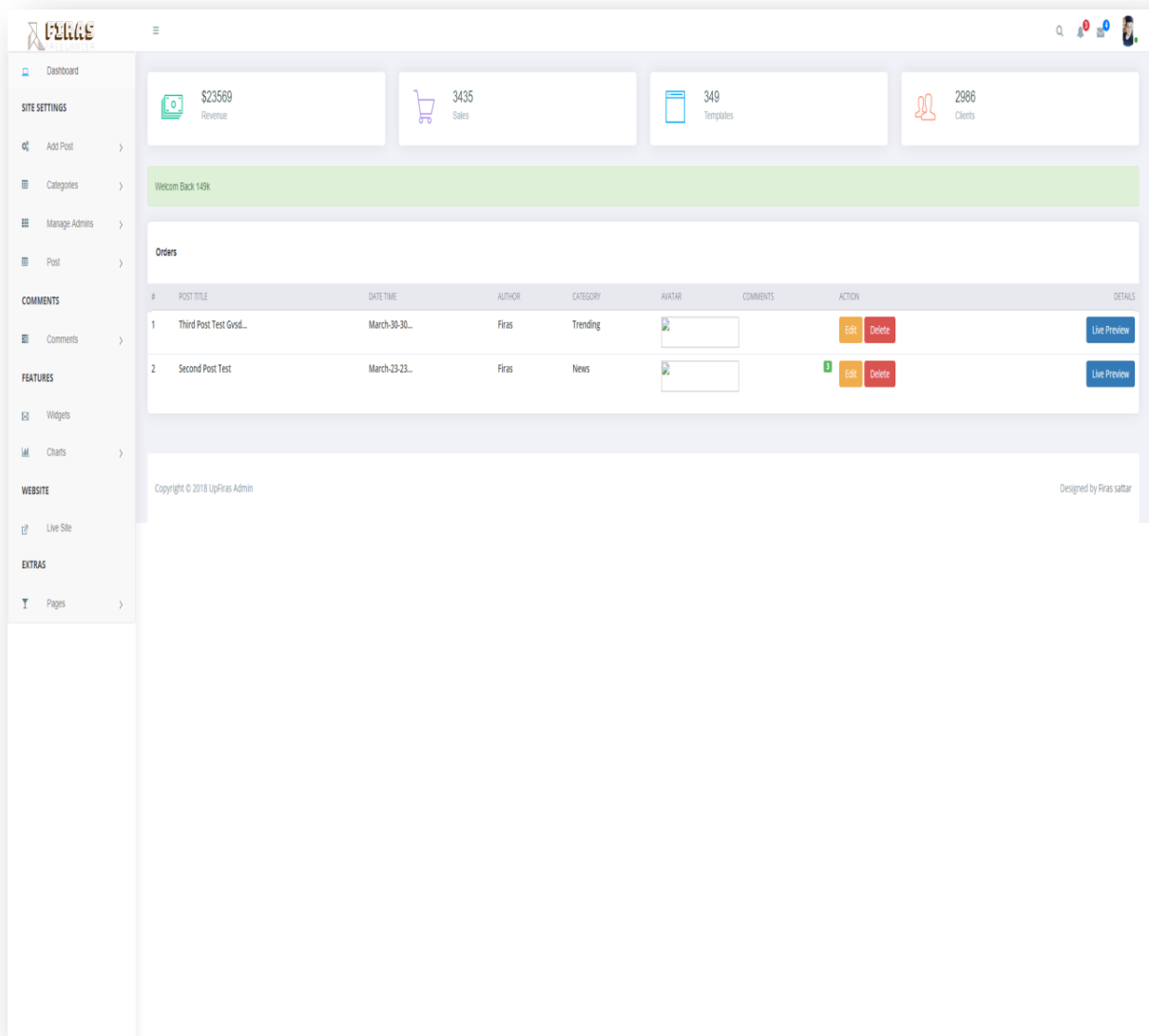
Figure 3. Dashboard of The Admin Panel

Based on market share statistics, the most popular content management system is WordPress, used by more than 28% of all websites on the Internet, and by 59% of all websites using a known content management system,

Content management systems typically provide the following features

- o search engine optimization
- o Integrated and online documentation
- o Modularity and extensibility
- o User and group functionality
- o Templating support for changing designs
- o Installation and upgrade wizards
- o Integrated audit logs
- o Compliance with various accessibility frameworks and standards, such as WAI-ARIA
- o Reduced need to code from scratch
- o Unified user experience
- o Version control
- o Edit permission management

3.3 Managing Login Logout Access Process

Logging in is usually used to enter a specific page, which trespassers cannot see. Once the user is logged in, the login token may be used to track what actions the user has taken while connected to the site. Logging out may be performed explicitly by the user taking some actions, such as entering the appropriate command, or clicking a website link labeled as such. It can also be done implicitly, such as by the user powering off his or her workstation, closing a web browser window, leaving a website, or not refreshing a webpage within a defined period.
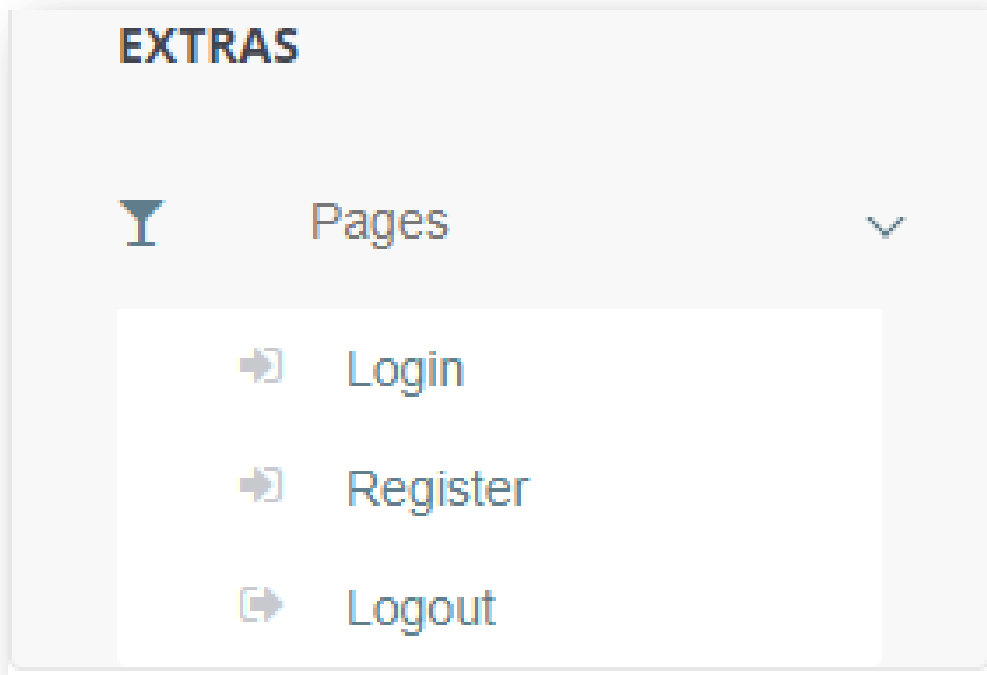
Figure 4. The Logout

In the case of websites that use cookies to track sessions, when the user logs out, session-only cookies from that site will usually be deleted from the user's computer. In addition, the server invalidates any associations with the session, making any session-handle in the user's cookie store useless. This feature comes in handy if the user is using a public computer or a computer that is using a public wireless connection. As a security precaution, one should not rely on implicit means of logging out of a system, especially not on a public computer, instead one should explicitly log out and wait for the confirmation that this request has taken place.

3.4 Design Definition of Website

This part describes the website layout, which contains the menu navigation and sections of the website. The layout of the website is simple as it includes only the following three sections: hider (navigation), content and footer (cf. Figure 2).
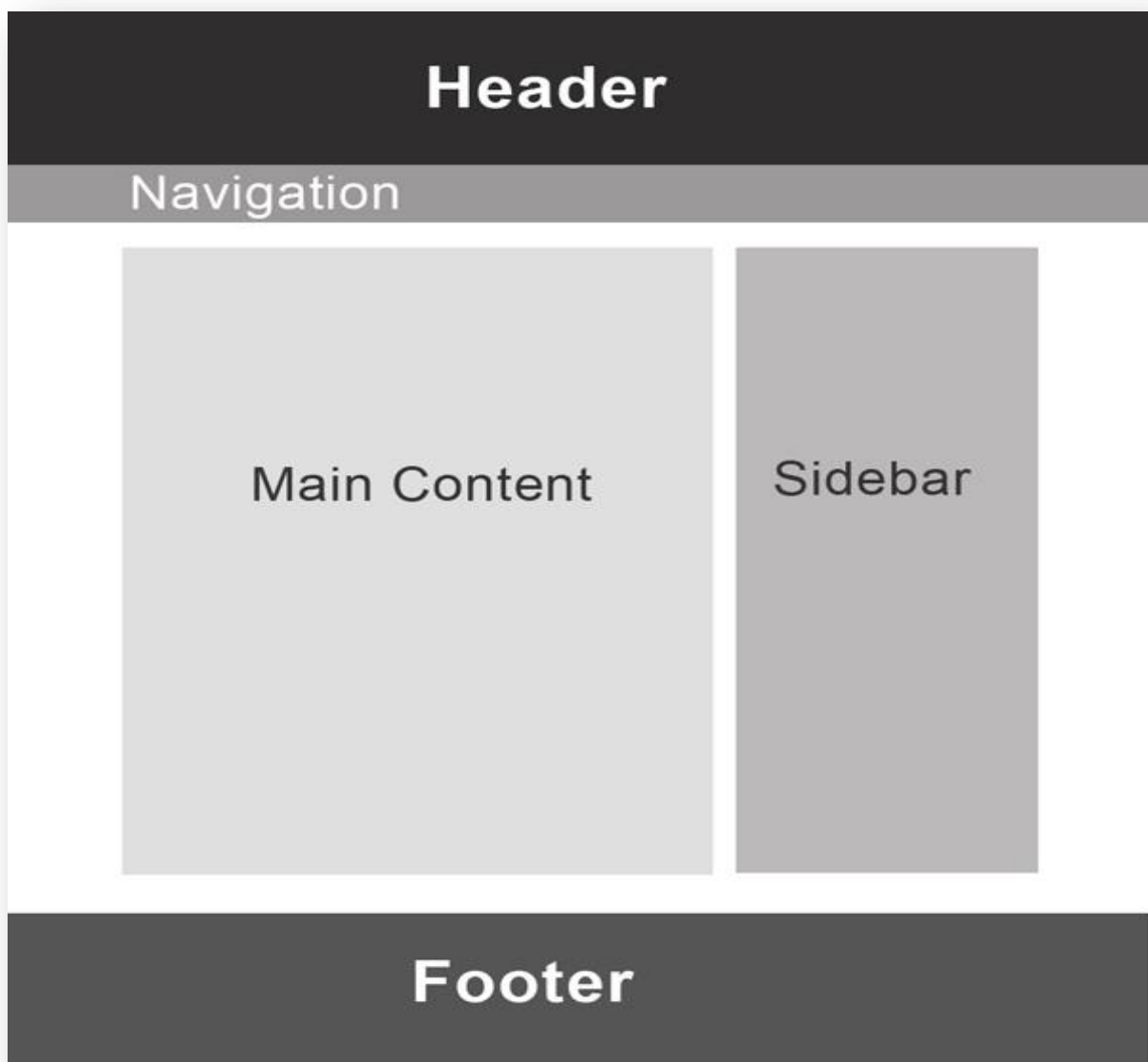
Figure 5. Pattern of the website.

Figure 2 above represents the form of every website page which has a horizontal navigation bar, content blocks and contact information at the page bottom. This web page layout was created using CSS source codes from Bootstrap Framework .

3.5 Website Development Planning

Nowadays, it is very important to build logically intelligible and intuitive website. By combining the layout with the required data, a simple website structure was created (cf. Figure 3) including basic content where the information is placed in a logical sequence.
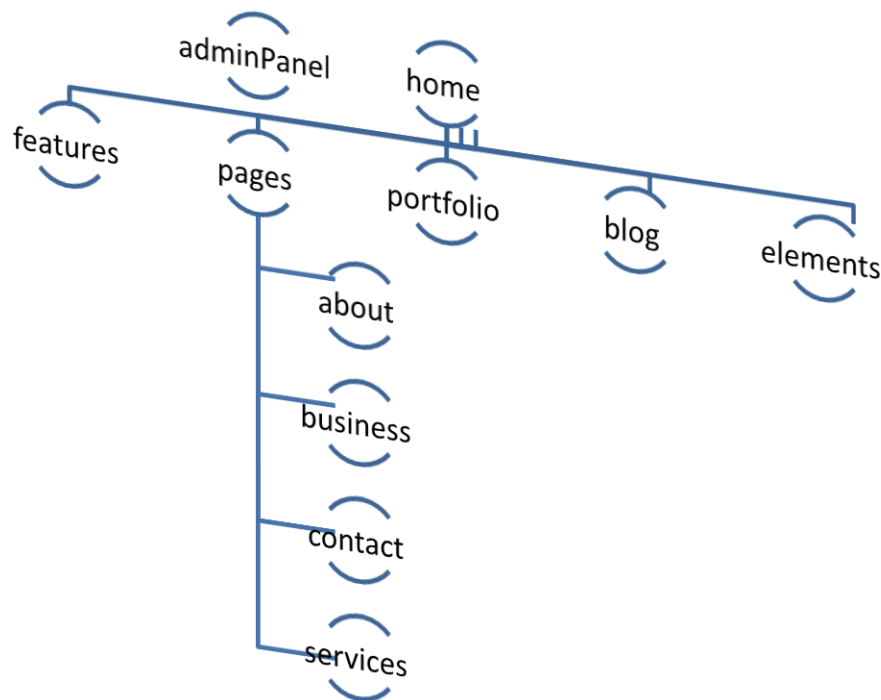
Figure 6. Sitemap of the website.

Chapter Four

4.1 Test and result

The "home page" includes video background and a short description of the Or buculum association. The "about" page contains the Or buculum project description and presentation boards. The "demystify" page is the key webpage that holds the database of video blogs. These videos are filtered thematically. Every video covers the basic myths or fallacies, which interfere professional growth of young experts. The last page is "contact", where customers and potential sponsors or partners can find ways to contact the association.

The code of the selected template for website development was customized according to the content and data of the website. The chosen Bootstrap website template provides flexibility in code customization which allows to create personal look. Therefore, website design customization was achieved by modifying the CSS template code and the web site content deployment was realized through adaptation of HTML code as well as appending new parts of HTML code. As support for code customization, Net Beans IDE was used.

Specifically, four HTML main pages were created for the website. After that, source codes from the template were copied and placed into the created HTML pages, and finally the source code was customized according to the Orbuculum content

In the next development step, the required CSS and JavaScript source files from the template were added. The CSS file codes were customized to answer the website layout requirements; however, the original JavaScript source files were used since they perfectly matched the website structure. The only exception was a JavaScript file "contact.js file", therefore, this file was modified according to the own HTML contact form settings.
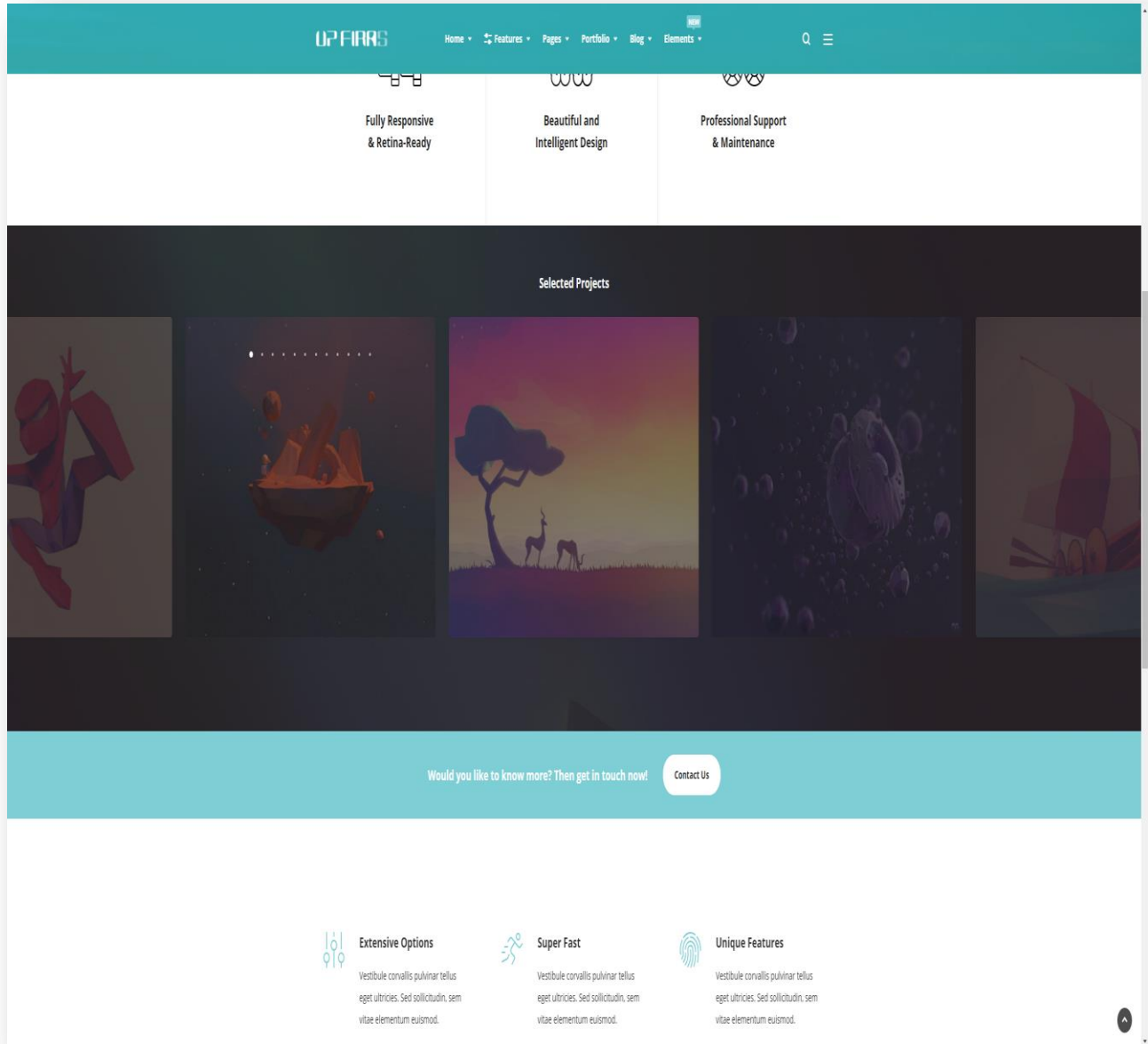
Figure 1. The Home Page

Every HTML page in the Website has a standard structure, including the following elements:

- o head element which contains metadata
- o "pre loader" as the website home page is based on the video background
- o navigation bar
- o main content which contains blocks
- o template sections modified accordingly to the website content
- o footer at the bottom of the page which contains the copyright notices, social media links and contact information

These elements vary slightly depending on the content of the page. Specifically, the blocks structure and design in the main content.

As described above, CSS sources from the template were used with the need to perform some modification of the CSS codes in source files to enable successful content adaptation. Thus, CSS code changes and some of the bootstrap CSS code modifications were performed. The "style.css" file was modified by more than 60%, and the original template CSS files were used for fonts, pop-ups and animations

4.2 Design and Develop The Blog Page

A **blog** is a discussion or informational website published on the World Wide Web consisting of discrete, often informal diary-style text entries (posts). Posts are typically displayed in reverse chronological order, so that the most recent post appears first, at the top of the web page. Until 2009, blogs were usually the work of a single individual, occasionally of a small group, and often covered a single subject or topic. In the 2010s, "multi-author blogs" (MABs) emerged, featuring the

writing of multiple authors and sometimes professionally edited. MABs from newspapers, other media outlets, universities, think tanks, advocacy groups, and similar institutions account for an increasing quantity of blog traffic. The rise of Twitter and other "microblogging" systems helps integrate MABs and single-author blogs into the news media. *Blog* can also be used as a verb, meaning *to maintain or add content to a blog*.

The emergence and growth of blogs in the late 1990s coincided with the advent of web publishing tools that facilitated the posting of content by non-technical users who did not have much experience with HTML or computer programming. Previously, a knowledge of such technologies as HTML and File Transfer Protocol had been required to publish content on the Web, and early Web users therefore tended to be hackers and computer enthusiasts. In the 2010s, the majority are interactive Web 2.0 websites, allowing visitors to leave online comments, and it is this interactivity that distinguishes them from other static websites. In that sense, blogging can be seen as a form of social networking service. Indeed, bloggers do not only produce content to post on their blogs, but also often build social relations with their readers and other bloggers. However, there are high-readership blogs which do not allow comments.

4.3 Responsive Blog

There is Eleven Step to make a Responsive Blog

01. Choose a blogging platform

There are several blogging platforms out there, from Blogger and WordPress to Tumblr, Squarespace and Ghost. Alternatively, if you're feeling bold and know your code, you can create your blog from scratch. Which platform you choose will very much depend on what you're most comfortable using,

how involved you want to be with the creation process, and what you plan to put on it.

02. Get a good domain name

Most blogging platforms will set you up on a subdomain by default, but if you want to be taken seriously then you should really buy your own domain name. You'll want something short, memorable and above all easy to spell, and take care when it comes to the top level domain. There are all manner of fancy TLDs available these days such as .blog or .agency, but there's a lot to be said for the classics; if you can get the domain you want with a good old-fashioned .com, then go for it.

03. Decide on the blog's content

You want to learn how to start a blog, but do you know what you want a blog for in the first place? Blogging for the sake of blogging is pointless – you'll soon get bored and your carefully crafted site will soon be home to nothing but tumbleweed.

Sometimes it is a good idea to grab a notepad and pen before you even start (and if you like your stationery, then check out our post on the best notebooks for designers). Jot down the types of blog posts you'd like to publish so you always have a reference point you can come back to if the ideas seem to have dried up.
Only then should you move on – you know how to start a blog, now it's time to design and populate it...

04. Keep your blog design simple

When creating a design blog, it can be tempting to go a little wild. After all, you want your blog to stand out and for people to remember you. How harmful can a rainbow of colours and a plethora of fonts be? The answer is: Very.

Keep your blog design simple. Stick to no more than three colours, and three fonts. With fonts; you need a heading, subheading and body copy font. Your main text font can then be enhanced by different weights or attributes, but keep these to a minimum. For more on fonts, see our posts on free fonts and font pairings.

Don't go crazy, and keep to a simple colour scheme. Contrasting colours can work well in the right design. It's a good rule of thumb that your blog features a main primary colour, a shade of grey, and a colour for your call-to-action.

06. Embrace white space

When finding inspiration before you create a design blog, don't be afraid of white space – it can really enhance your design and keep it looking professional.

And don't worry about leaving some parts of the design empty where it warrants it. You should also use white space as borders to help highlight key parts of the blog. Remember, sometimes less really is more.

07. Keep your design goal-driven

If the purpose of your blog is to get conversions – whether that's sales, signups, or enquires – then everything else comes second. This means you should create a design blog that is designed with three things in mind:

- **Topic:** What is your blog about?
- **Value proposition:** What makes it unique?
- **Audience:** Who is your main target audience?
To get conversions, your design blog needs a strong call-to-action in its design, be that headlines, prominent buttons, or even arrows. A goal-driven design will help your blog convert, and keep visitors coming back time and time again.

08. Follow conventions

It can be easy to forget about the important features of a blog when getting creative with the design. Whatever your blog ends up looking like, make sure you keep the main conventions of a blog in place.

These include:

- Sidebars
- Headers
- Subscription options
- Author attribution
- Search bars

These all make your design blog easy to navigate, which is a highly important feature. Keeping these elements in place will make your content easy to find, and keep your visitors on the blog for longer. Together, all this adds up to a goal-driven design.

09. Experiment with your blog

Although for the most part it's important to follow conventions, that doesn't mean you shouldn't break the rules from time to time.

Try a few new elements, and experiment with colours, fonts, and placement. By mixing things up, you create a visually exciting experience for your audience. Just make sure that your readers can always find your posts, and exactly what they're looking for.

10. Make it responsive

Nowadays, responsive web design is a prerequisite for any respectable design blog. If possible, work closely with a designer and developer to help produce a design that is both eye-catching and functional. Many of the free blogging platforms also offer responsive designs, and you can always check your design with a tool such as Google Resizer.

11. Promote your blog

There is no point in knowing how to start a blog without learning how to promote it too... This is where social media

comes into its own. Create Facebook and Twitter pages for your blog, or use existing accounts to shout about it. If you have a lot of images in your blog, why not set up Pinterest and Instagram accounts, too?

Most modern blogging platforms such as Squarespace provide integration for everything from Twitter and Instagram to Tumblr and Dribbble, so you can spread the message quickly and effectively. There are also dedicated platforms such as Hootsuite, Buffer and Sprout Social, if you want to manage everything outside your blog.

Chapter Five

5.1 CONCLUSIONS

The project had the objective to create a design for the iMind web page, which was successful. The idea was to create a design considering the end users, which in this case are the customer companies. Personnel from three companies were interviewed about their interests and methods to guide the design process. The questions which were defined in the research problem were answered with theoretical information as well as the interviews. The theoretical literature helped determine basic issues of typography, layout, responsiveness, colours, and in general the graphic elements. The interviews provided necessary information for the information structure; which were the most important aspects for the interested customers and their preferred methods to access the information.

The main issue with the original design was that the page was not responsive apart from the adapting text width; there was too much text contents and the images did not react to the devices screen size. The images themselves were not an issue but how they were used; there were very many, none of which adapted responsively. This is why a lot of the existing images were reused. There are always issues with finding new images due to copyrights.

During the process of writing the information it was an important issue to draw the line; the subject of web design is very large and the thesis needed to be a coherent whole. This meant that while finding relevant information, it was always necessary to consider whether it should be included. On a positive note, the information was very easy to find as web design and responsiveness is a very modern issue.

The very first thing to decide was which design to begin with; mobile, tablet, or desktop. The interviews concluded that a desktop size

device would most likely be used for the design, while some theoretical sources suggested the mobile first method. As the commissioner's page did not have enormous amounts of information, the mobile first seemed like a logical choice. This meant beginning with the bare essentials and adding more content as the screen allowed. However, the larger screens do not have huge differences in content as a simple look will be easier to follow.

Next there was an issue of should the design be something completely new or something made based on what already existed. Since the existing page showed what the commissioner preferred and the nature of the page's contents was quite simple, I decided to use elements from the old web site to construct something new.

Two ideas which are not shown in this design could easily be added; a search box and downloadable PDF and PowerPoint files, or alternatively a link to an online presentation (for example on google drive). The files seemed to have demand as it was an interviewed company who suggested them. The issue with the search box is that the search terms would need to be exact but they may be usable.

In the future it would be advisable for the commissioner to keep the front page simple, have a trimmed text content which only shows the main points, and perhaps consider having the company's homepage and the product page in one location for simplicity. In the future the web development will in all likeliness continue to change and develop at a fast pace which means that updates are bound to be necessary. If the commissioner wishes for a more complicated page with a lot of functions, there is room for changes but this design should give a framework to building a functional and thought out website.

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