

cactiness.com

Web Thesis Project

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Development

Contents

| | |
|--|-----------|
| 1. Elevator Pitch | 3 |
| 2. Initial Brief..... | 4 |
| 2.1. A longer account of the problem | 4 |
| 2.2. A longer account of the value proposition | 4 |
| 3. Competitor websites and comparable productions | 6 |
| 3.1. The British Cactus & Succulent Society | 6 |
| 3.2. Plant Mall | 11 |
| 3.3. SuccSeed | 15 |
| 4. Project Plan (Business, Commodity, Firmness, Delight)..... | 21 |
| 4.1. Business..... | 21 |
| 4.2. Commodity..... | 21 |
| 4.3. Firmness..... | 27 |
| 4.4. Delight | 41 |
| 5. Analytics | 44 |
| 6. Future Development..... | 50 |
| 7. Conclusion | 51 |
| Bibliography & Citations | 52 |

1. Elevator Pitch

I am a Web Designer in Development and I love cacti as many others do. However we do not have a proper source of “cactiness” to rely on. This is why I take it upon myself to create a unique website which would re-introduce the amazing world of cacti to everyone.

This project would grant me the opportunity to demonstrate my web designer skills in both technical and design aspects. It will be the centrepiece of my portfolio body of work – my signature style.

The website that I intend to create will be an eye candy full of entertaining and fun content such as jokes, images, videos, short articles. The website’s graphics will create the feeling that cacti are truly idolized. This effect will be achieved by the use of topical to cacti elements throughout the design of each page such as thorns, colour and environmental details.

Design objectives:

1. Cacti fan-site as a front for a portfolio piece of work.
2. To make use of new web technologies such as HTML5, CSS3 and more.
3. To be aesthetically pleasing.
4. To be unique, entertaining, fun, fresh.
5. To be user-friendly.
6. To have positive effect on the portfolio of the creator.

Manifesto:

1. No web browser will stop me from using the latest technology.
2. The best way to do it is to hand code it.
3. With CSS3 the sky is barely a limit.
4. I embrace the natural and represent it in personalised way.

2. Initial Brief

2.1. A longer account of the problem

Cacti are extremely underrepresented in today's world, even though they are constantly entwined in our lives. From the expensive cosmetic products to alcoholic beverages, they surround us through their many uses. The problem here is the lack of a good online presence for any sort of cacti related content. Of course there are a few websites which aim at the right direction. However they lack some unique quality to set them apart and make them successful. Furthermore the design of those few websites simply does not match the high standards and expectations of the user today. Upon visiting one of the existing cacti websites one would immediately be put off by the feel and look of it. Every single one of them gives a dull, stiff and cold impression. Many have interesting content, but it is not organised/categorised intuitively enough for the user to browse with ease. It is straightforward to conclude from these observations that an opportunity arises here. There is a need of a unique website to represent the awesome cacti in a completely new way.

Here are some examples of cacti related websites which are placed on the first page of Google search engine and some other relevant to this project websites.

- <http://www.bcss.org.uk/index.php>
- <http://www.cactus-mall.com/>
- <http://www.succseed.com/>
- <http://www.easycactus.co.uk/site/index.php>
- <http://www.glenhirstcactiandpalms.co.uk/>
- <http://www.robinssalvias.com/blue/default.htm>

Some of these examples will be discussed and criticised in detail in Section 3.

2.2. A longer account of the value proposition

In order to surpass what is achieved by the competitors' websites, modern techniques, design and understanding has to be applied in this project. The new

website is intended to be created with use of the latest available technology (e.g. HTML5, CSS3, PHP, etc.). The graphics design is fuelled by the features of the commonly perceived natural environment of cacti – the desert. The information is structured in the most obvious way without confusing the user with countless levels of navigation.

The following is a list of ideas which will later on compose the main navigation and build the structure/content of the website.

This website could host a whole range of different content.

- ✓ There will be a place for intriguing information about cacti such as architecture project inspired by cacti.
- ✓ There will be a section for introducing different uses of cacti – medicine, beverages, cosmetics, food.
- ✓ There will be a section for comedy related content such as funny pictures or jokes about cacti.
- ✓ There will be guides on how to grow a cactus from scratch.
- ✓ There will be cacti themed games available to play on the website.

Additional ideas for future development:

- ✓ There could be a world map showing the origin of the different kinds of cacti.
- ✓ There could be a listing of the cactus gardens of the world and details about them.
- ✓ There will be a category for movies where cacti are a part of the story e.g. Disney's films.
- ✓ There will be a section about famous cacti – from movies, internet and history.

USP:

- Portfolio piece of work showcasing the skills of a web designer
- Entertaining, Fun, Fresh

3. Competitor websites and comparable productions

In this section of the document we will look into some of the competitors' websites and undergo detailed analyses under the Business, Commodity, Firmness, Delight framework for each of them. Even though the project does not exactly coincide with the nature of the following websites, they contain valuable information for the development of the new site. For example one could learn from their mistakes and try not to repeat them or may be recognise useful techniques, duplicate and improve them for the benefit of this project.

Note: More information about the technologies examined in the following cases could be found in Section 4 – Firmness.

3.1. The British Cactus & Succulent Society

<http://www.bcss.org.uk/>

"The principal objectives of the BCSS are to promote the study, conservation, propagation and cultivation of cacti and other succulent plants."

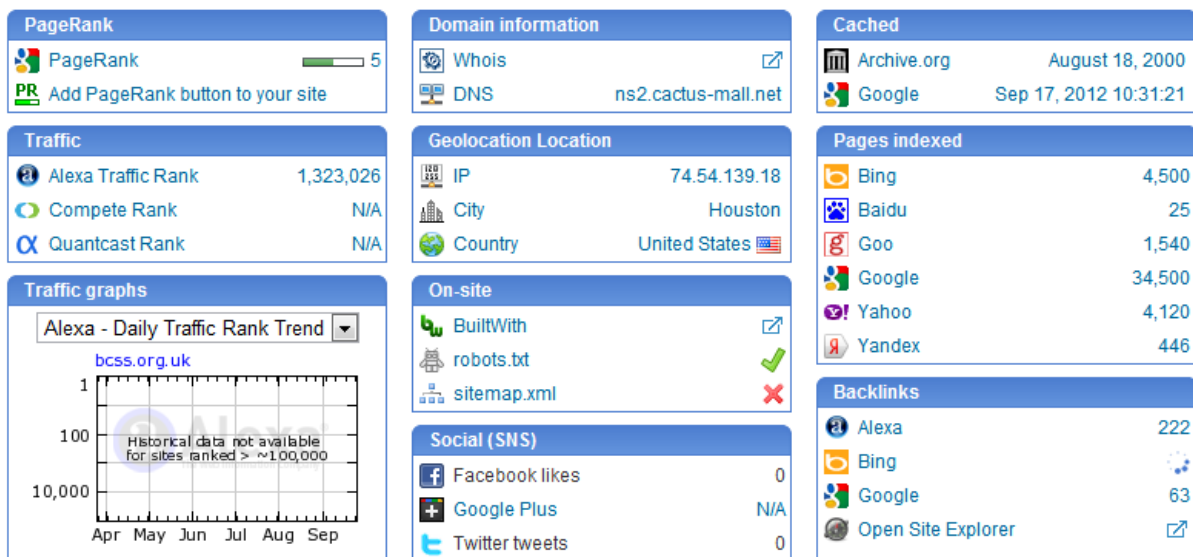


Figure 1

The preliminary analysis of this website shows that it is well ranked among all other websites. A PageRank of 5 is considered a very good achievement as far as SEO is concerned.

Business

It is clear from the website's name that their goal is to form a society around the common interest for cacti. With the help of its members the organisation carries out charitable events to support the conservation and research of cacti and other succulent plants. The "BCSS" has a few sources of revenue streams. The initial one being the membership fee required to be a part of the society. Although the membership is not compulsory it gives you valuable benefits. Another income source is selling books which have been published by the "BCSS" which can be journals, handbooks, yearbooks, etc. The "BCSS" also organises big events on regular basis which allow them to sell some of their products in person. The website also covers the retail of cacti plants and seeds. Last but not least there is the option for donation.

Evidently there are a lot of ways to monetize the love for cacti. Although this is a great way to earn money it is not convincing that requesting money for every little thing (e.g. membership fee) offered on the site is the right way to attract new members.

Commodity

The first impression the website makes is that the content is too much. The homepage of a website should be the gateway to it. It has to offer enough information to make the user to want to go in but not too much to him/her dizzy. In this particular case the user is quite overwhelmed. Although the articles might be overly saturated, the content is of good quality and worth reading. This example shows that good educational material can be rendered useless by misrepresentation.

The main navigation looks crowded as well. With its small font size and bright colour it proves to be not user friendly at all. There also is a secondary navigation which appears on the left side of the page once a link from the main navigation is selected. Now there are two navigation bars packed full of links. This is very bad for the user experience – it is confusing and hard to browse through the website. However there is one navigation technique in use which is beneficial to the site – the Breadcrumb navigation on every page. Makes it easy

to follow your tracks deep into the website and it is also good for the Search Engine Optimisation (SEO).

Another issue with usability and legibility on this site is the justified text on the homepage. Each piece of text there is justified leaving huge rivers of white space formed from the word spacing in adjacent lines of text. It is never a good idea to use this type of text alignment even if it looks better as a whole.

An observation worth mentioning is the positioning of the social links and icons. They are placed in the footer – barely noticeable. Social media is a fast growing promotion method – its links should be placed where it can easily be noticed by the user.

There are a few other problems such as: the content of the “About” page and the Taking Part page is the same, some of the pages are filled with dummy text (“Lorem ipsum”). No criticism is required on this matter because the site has been under construction since December last year.

Firmness

HTML - There are 18 Errors during validation of the markup. Every professional website should have as few as possible. There is a lot of inline styling which must be avoided as a web designers’ good code of practice – styling should be separated from Structure. Another bit of bad practice is the use of tables to create the layout of the page – again a job which should be handled in the Presentation layer (CSS) and not in the Structure layer (HTML).

CSS - The CSS Validator found no errors - shows attention to detail.

JavaScript/jQuery – a bit of JavaScript is used to display a real-time timer to an upcoming event. A definitely useful tool when organising event - the resulting build-up of the elapsing time will increase interest in the users.

PHP – A good use of this technology has been demonstrated in this website. Content rich websites such as this one have to use the unique qualities of PHP in order to avoid redundancy during coding.

Flash Animation – No flash animation used.

Delight

Things do not look good in terms of design on this website. First of all there is no apparent use of a grid system on any page. Grids are an essential tool when designing a user friendly and beautiful website – unless the aim is to be more artistic and closer to natural order. However this is not the case.

The typography of the website is a bit messy. It is strange that an h1 tag has the same font size as the name of the society and that the font size of the navigation is smaller than the content text. This implies that the visual hierarchy of the website is misleading. The use of CTA (Call to action) colour in the navigation tries to mend the problem, but it is not enough to fix the problem completely. It is true that if the font size was bigger than there would not be enough space to fit the navigation. The conclusion drawn for this is that there are too many links on the navigation bar – eleven in total.

The choice of colours is not suitable. Yes, the colours match the theme of cacti but they are not working well in combination. The yellow on green navigation and tagline does not result in good contrast. The two shades of green meeting seem to not complement as well.

The quality of the images on every page as well as the gallery is very good. It is extremely important to have good photographs of the one thing that your website revolves around – cacti. Quality images would also sell more products.

(Screenshot of the website is on the next page)



Research, Conserve, Educate, Cultivate & Propagate

The British Cactus & Succulent Society

Google Custom SearchGo

[Home](#) | [About](#) | [Forum](#) | [Gallery](#) | [Our Work](#) | [Taking Part](#) | [Join](#) | [Cultivation](#) | [Shop](#) | [Members](#) | [Contact](#)

Aloes The Definitive Guide



Recently published in a collaboration between Kew Publishing and the BCSS, this new book is available at a significantly reduced price to BCSS members. [More....](#)

Join Us



If you have an interest in these fantastic and fascinating plants and want to receive 4 full colour journals a year, meet like minded people at [branches](#), [shows](#) and [conventions](#), swap plants and information then why not join the society. [More.....](#)

Cool Cactus & Super Succulents - Junior Website



Welcome

"If you have discovered the wonder and beauty of growing cacti or succulents, this site and this Society is the gateway for you to expand your collection and knowledge and join the enthusiastic throng of members who share your delight. With [over 80 branches](#) throughout the UK which meet monthly, you have the opportunity to meet like-minded people and learn more about growing these wonderful plants. A quarterly, beautifully illustrated [magazine](#) devoted to these plants will bring you information by way of articles about their occurrence in the wild and their needs in cultivation to enable you to grow them and reap the rewards of the glory of their flowers. [Read on.....](#)"

2012 National Show

It is finally here! to go.

The date for your diary for 2012, 18th August at the Wood Green Animal Centre, Godmanchester, near Huntingdon.



Your show needs you!

Would you like to be involved in the largest cactus event of 2012? We are looking for stewards and photographers for the show. Please register your interest with the [Shows Secretary](#), Mike Stansbie. [More.....](#)



Echinocereus by John Pilbeam

Our newest publication from this ever popular author. John Pilbeam has been growing these plants for some sixty years, and has wandered throughout Mexico and the USA southern states [More.....](#)

The Forum

If you're having plant problems, need an id, want to discuss cultivation, or see wonderful travelogues from round the world then please don't hesitate to visit [the forum](#).

Seedlist.

The 2012 members seedlist is out, full of interesting new additions to your collection. [More.....](#)

Cultivation Leaflets

Want to learn more about these fascinating plants and how to grow them then you need a set of our full colour cultivation leaflets, free to all new members or as little as £3.50 including postage which includes a £2 discount voucher should you decide to join the society. [Buy now](#)



Plant of the Month

Orbea variegata



Orbea variegata was the first Stapeliad to arrive in Europe being introduced in 1639 by Justus Heurnius who also collected plants, [.....Read more.....](#)



Bradleya 29

Out now the latest edition of Bradleya, our prestigious yearbook. The 2011 edition includes eighteen articles, covering a broad range of succulent plants, with something for all tastes and interests. [More.....](#)

Journal & Bradleya

Many back issues are available from the [shop](#)

[Bradleya Vol. 1-29 Index \(PDF file\)](#)



The Gallery

[Home](#) | [About](#) | [Forum](#) | [Gallery](#) | [Our Work](#) | [Taking Part](#) | [Join](#) | [Cultivation](#) | [Shop](#) | [Contact](#)

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UK Registered Charity No.290786 | [Hosted by cactus-mall.com](#)

 **British Cactus & Succulent Society** on Facebook
Like 677



Problems? Please contact the [Webmaster](#)

Figure 2

3.2. Plant Mall

<http://www.cactus-mall.com/>

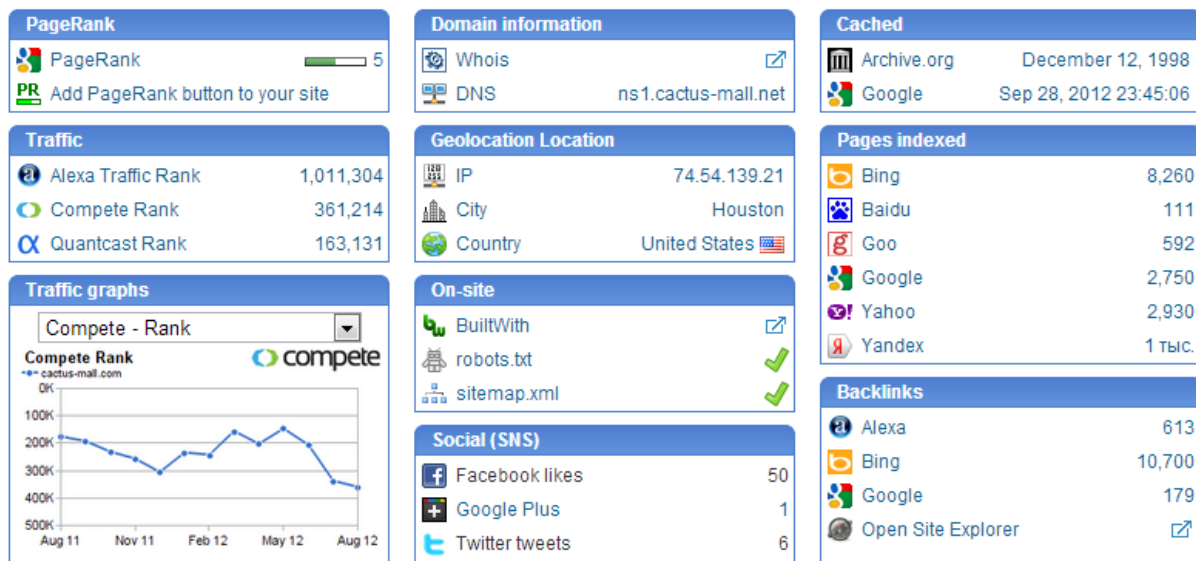


Figure 3

Business

This website has a few revenue sources such as AdSense, eBay ads and even direct link advertisement of other cacti related websites. Yet one remains as the sole purpose of this website – webhosting. This service is only offered to cacti related websites. It very much resembles a directory website with the difference that it also hosts the websites which it enlists.

Commodity

At first glance it appears that there are many issues with this website. It is extremely difficult to find out what is the purpose of it. The only way to discover it is to start reading the content of the homepage. This is extremely irritating for the user not to know on what kind of page he/she landed on. It is necessary in the cases where the logo does not reveal the purpose of the website to have some kind of tagline or title in the beginning to let the visitors immediately know what to expect from it.

Once understood, the idea behind the website starts to make more sense. Because the website is hosting and advertising cacti related websites, it is

expected that you will find all client's links to their websites. However in order to save space the links are represented as drop-down menus which in my opinion are not the best solution in the given case. Each drop-down menu represents a category of site links. It would have been better to spend a page for each of the categories instead of just squishing them all together on a single page.

The information architecture as a whole seems to be extremely chaotic. There are lots of links scattered in the content text which are unclear as to where they would lead. The absence of "bookmark" to show the current location of the user with respect to the information architecture of the website (breadcrumbs might have been a good solution for an information heavy site like this one) might frustrate the user.

A very good feature of this website is that it offers a ranking list of all the websites hosted there. It gives valuable information to the webmasters if their website needs more improvements in order to go up the rankings.

Firmness

HTML – The code is full of errors and warnings detected after verification such as, no document type declaration which tells the browser which version of HTML the website is written in. This omission automatically generates a whole lot of other otherwise avoidable errors such as "document type does not allow element "DIV" here"

CSS – There is no apparent use of styling in this website, apart from a few lines for a Facebook share button in the footer of the page. The layout of the pages is provided by the structural layer (html). This is a total taboo according to today's web standards – Structural layer and presentational layer have to be always separated.

JavaScript – The scripting language is used in the website. An example is the eBay adverts on the homepage. However that code is supplied from eBay when integrating the ads on the page. JavaScript is used nowhere else in the site.

Delight

The choice of colours suites the cacti theme – a range of green is used here. However the use of the colour is not successful. The pages look dull as if no effort was made to create the website.

Once again randomness takes action into the layout of the pages. Absolutely no grid system is used for structuring the layout. Typesetting is just default.

There really is not much to say when there is no *delight* in this website.

(Screenshot of the website is on the next page)

The Cactus and Succulent Plant Mall

Who and What are on the Mall

Conservation
Cactus Clubs
Subscriptions
Request Link
Mailing Lists
CD-ROMs
New Items
Webinars
Home Pages
Nurseries
Gardens
Pictures
Search
Events
Books
Home
Press
Environment
Propagation
Seeds
Other Plants

Select Language : English [go]

Pay for Invoices, Links, Banners, Advertising or Domain hosting accounts [go]

Mattlandscapes.com
Your #1 Jungle Cacti Source

The cactus and succulent plant mall (CSPM) is an Internet resource for all growers of cacti and succulents. It is regularly updated with information on cactus and succulent societies and suppliers of plants, seeds and literature on cacti and succulents. The CSPM has developed and hosts webpages for cactus and succulent organisations worldwide (230 domains + 52 web sites within cactus-mall.com + 131 advertisers). It also aims to maintain as complete a list of web pages and other cactus and succulent related Internet facilities as possible. The CSPM is maintained by Suzanne and Tony Mace. We regret that our work load has grown to the point where we can no longer answer individual cultivation or identification questions. We recommend you ask these in the [British Cactus Society Forum](#).

The CSPM includes the official webpages for a number of the [national Cactus and Succulent Societies](#), websites for many [specialist groups](#), [local clubs](#) and [nurseries](#) all over the world. On these pages you can find information about their publications, local groups and other activities. If you want your page indexed on the CSPM please [give us the details](#). If you know of a link which is not in our current lists we will be very pleased if you can tell us about it. If you are responsible for any of the resources listed on our site and change the address please let us know. If you find any links not working please alert us.

Before requesting plant or seed lists **PLEASE READ** the notes on our [nursery](#) page. Many cacti and succulents are CITES listed plants and cannot be mailed internationally without licences and extensive official documentation which few organisations are willing or able to supply. Please also note that CACTUS-MALL.COM is a web hosting company NOT a Nursery. We have a dedicated high performance server which currently hosts 227 domains including 216 related to cacti and succulents. This portal attracts more than 100,000 visitors per month and the server more than 600,000 so this is the place to [host your webpages](#) or [advertise](#) if you want to maximise your traffic. We invite you to join us. Some of the hosted domains:

Organisations:
Cactus Explorers Club [go]
Personal:
Les Cactées Epiphytes [go]
Recently Updated Pages:
AUGUST 2012: Mesa Garden 2012 Plant List [go]

Nurseries:
Xerophytes & Geophytes [go]
Advertisers (off server domains):
Arctic Cactus Inc [go]
Commercial (other than Nurseries):
ExoticPlantBooks.com [go]

CONTENTS

- On this page of the Cactus and Succulent Plant Mall
 - Nationally Based Society Pages
 - Internationally Based Specialist Society Pages
- On separate pages of the Cactus and Succulent Plant Mall
 - Other Cactus and Succulent Organisations
 - Cactus and Succulent Indexes and Services on the Internet
 - Search Page
 - Bookings Surveys & Tony Mace to give a talk to a gardening, horticultural club etc
 - Alpines, Bromeliads, Bulbs, Palms, Cycads and Carnivorous Plants
 - Cacti and Succulents on CD-ROMs
 - Badges of Cactus and Succulent Societies
 - The Cactus and Succulent Plant Mall Bookshop
 - Cactus and Succulent Nurseries supporting the Cactus Mall
 - Suppliers of other Cactus and Succulent Products and Services
 - Cactus and Succulent Book Publishers and Dealers
 - Home Pages concentrating on specific genera or groups of plants
 - General Cactus and Succulent Home Pages
 - Club and Branch Homepages
 - Some Common name equivalents for Cacti and Succulents
 - Conservation of Cacti and Succulents
 - Events in the Cactus and Succulent World
 - Mailing Lists related to Cacti and Succulents
 - Promoting the cactus and succulent hobby on the Internet
 - Sales of Plants etc. on eBay
 - On-line subscription to
 - The British Cactus and Succulent Society (including reserves)
 - Cactaceae Review (Pedicularis, Solanaceae, Nerium, Tomeris)
 - Cactus & Co.
 - The Cactus and Succulent Society of America (including reserves)
 - International Cactus Adventurers
 - The Mammillaria Society
 - International Hyacinth Association
 - International Asclepiad Society
 - International Euphorbia Society
 - International Scaevola Society
 - The Mesemb Study Group
 - The Succulent Society of South Africa
 - Periodicals Devoted to Cactus and Succulent Plants
 - Pests and Diseases
 - Picture Gallery of Cacti and Succulents
 - Public Collections of Cacti and Succulents
 - Cactus and Succulent Publications
 - Recommended retail sources for cacti and succulents
 - Useful general resources in Botany, Geography, Climatology and Horticulture
 - Webinars of Cactus and Succulent Pages
 - Operation of the Cactus Mall
 - Cactus Mall Blog
 - Advertising on The Cactus and Succulent Plant Mall
 - Commercial Services
 - Copyright messages
 - Email Security One Policy on the Spans
 - Menace **UPDATED**
 - Frequently Asked Questions
 - Non-English Indexes of Cactus and Succulent Resources
 - Click here to read Belorussian translation of the Cactus-Mall
 - A French index of the Cactus and Succulent Plant Mall is maintained by Yvan Cochard
 - An index of German language pages
 - An Italian index of the Cactus and Succulent Plant Mall with the assistance of Andrea

Search all websites on the Cactus-Mall Server:

Google Custom Search [go]

Plant Lables for Sale in the USA [go]

Plant Lables for Sale in the UK (EU) [go]

Lawnmowers superstore - buy an electric lawnmower or petrol lawnmower today with speedy UK delivery.

ebay 143 SEARCH RESULTS FOR: gasteria [go]

ebay 102 SEARCH RESULTS FOR: haworthia [go]

[Bookmark us!]

Catalogs

- A Japanese index of the Cactus and Succulent Plant Mall is maintained by Yoricichrow Matsuka
- A Polish index of the Cactus and Succulent Plant Mall provided by Tomasz Rosinski
- A Portuguese index of the Cactus and Succulent Plant Mall is maintained by Marcelo A. K. Fontana
- A Russian index of the Cactus and Succulent Plant Mall is maintained by V. Palagov
- A Spanish index of the Cactus and Succulent Plant Mall is maintained with the assistance of El Jefe
- A Greek index of the Cactus and Succulent Plant Mall is maintained by Dimitris Athanasiadis
- This translation by Miss Boopha Thumthichong from WWW.MYCACTI.COM

Nationally Based Cactus and Succulent Societies

(Local clubs, branches, affiliates or Ortsgruppen are given on a separate page of the Cactus Mall)

- The Alban Cactus & Succulent Society of Zimbabwre
- Associazione Italiana Amatori della Pianta Succulenta (AIAS) (Italy)
- Asociación Amigos de los cactus y otras succulentas (ASAC) (Barcelona, Spain)
- Círculo de Coleccionistas de Cactus y Crasas de la República Argentina (CCCC) (Argentina)
- A.R.L.D.S. (France)
- Cactus and Succulent Society of Australia Inc.
- Cactus & Co. (Italy)
- Gesellschaft Österreichischer Kakteenfreunde Austrian Cactus and Succulent Association
- The British Cactus and Succulent Society
- The Cactus and Succulent Society of America
- The Cactus and Succulent Society of Israel
- The Cactus and Succulent Society of Malta
- Cactus and Succulent Society of New Zealand
- Cactus en Vervanden (Belgium)
- Cactus & Auteurs (Belgium)
- Cyprus Cactus and Succulent Society
- Gronosa (Belgium)
- Deutsche Kakteen-Gesellschaft e.V. (DKG) (Germany)
- Društvo Prijateljev Kakusov Slovenija Friends of Cacti Society of Slovenia
- Estonian Cactus Club
- Hellenic Cactus Society
- International Succulent Institute Japan
- Magyar Kakteenklubok Országos Egyesülete Hungarian Cactus Society
- The Indian Society of Cacti and Succulents (ISCS)
- Japan Succulent Society
- Kakteen Society of Czech and Slovak Cacti and Succulent Growers
- Sociedad Latinoamericana y del Caribe de Cactaceas y Otras Succulentas (SLCCS)
- Sociedad Mexicana de Cactología (Mexico)
- Nordic Cactus and Succulent Society
- Cactus & Succulent Society of Pakistan
- Slovenian Society of Cacti Enthusiasts
- Sociedad Peruana de Cactus y Succulentas (SPECS) (Peru)
- Le Papet (Switzerland, French language)
- Polskie Towarzystwo Kakteenow-Sukulentow OKMK (Poland)
- Receptaculum Succulentorum Debrecenense Hungarian Cactus Society
- Cactus Romania Romanian Association of Cacti Growers
- Succulenta The Dutch-Belgian Society of Cactus and Succulent Amateurs
- Succulent Society of South Africa
- Schweizerische Kakteen-Gesellschaft (SKG) / Association Suisse des Cactophiles (Switzerland)

National Societies on the Cactus and Succulent Plant Mall

Gesellschaft Österreichischer Kakteenfreunde [go]

Internationally Based Specialist Society Pages

These groups are devoted to restricted groups of Cacti or Succulents - membership is international and varies between about 200 to 700.

- Alsterworthia International
- Auto-Motus International Astrophytum Group
- Arbeitsgruppe Astrophytum
- Australasian Plant Society
- Interessengemeinschaft Asclepiadaceae
- The Chelonia
- Arbeitsgruppe Echinosaurus
- epi-flora society
- Fachgesellschaft andere Sukkulenten e.V. (FGAS)
- The International Grevillea Society
- Grono Alkotok
- The Harporhia Society
- Harporhia society of Japan
- International Asclepiad Society
- International Epiphytic Plant Study Group
- International Euphorbia Society
- International Hyacinth Association
- The Mammillaria Society
- Arbeitskreis für Mammillarienforschung (ADM)
- The Mesemb Study Group
- Nihon Kakutei Kenkyukai
- Czech Society of the Friends of Notocacti (Interneto)
- International Society of the Friends of Notocacti (Interneto)
- Arbeitsgruppe Palmette
- International Scaevola Society
- Schuettenia (Gymnocladium)
- The Sedum Society
- Fachgruppe Sempervivum/Jovibarba
- The Teplitz Cactus Study Group
- The Teplitz Cactus Group (TCG)

Specialist Societies on the Cactus and Succulent Plant Mall

Alsterworthia International [go]

| | | | | | | | |
|-------|-----------|--------------|---------------|--------------|-------------|--------------|----------|
| HOME | Gardens | Events | Pictures | Club Badges | Nurseries | Swap-Shop | NEW |
| Clubs | Homepages | Conservation | Stamps | Plant Genera | Publishers | ebay | Bookshop |
| MAP | Search | Webinars | Mailing Lists | Advertising | Web Hosting | Other Plants | EMAIL |

Website: [http://www.cactus-mall.com](#)

URL: [http://www.cactus-mall.com](#) Mainstream: Tony Mace Tel: (+44) 1444 459151 Fax: (+44) 1444 454061

Check out: [http://www.cactus-mall.com](#)

Figure 4

3.3. SuccSeed

<http://www.succseed.com/>

“Your supplier of cactus and succulent seeds for more than twenty years! Order from our online shop with 3000 varieties.”

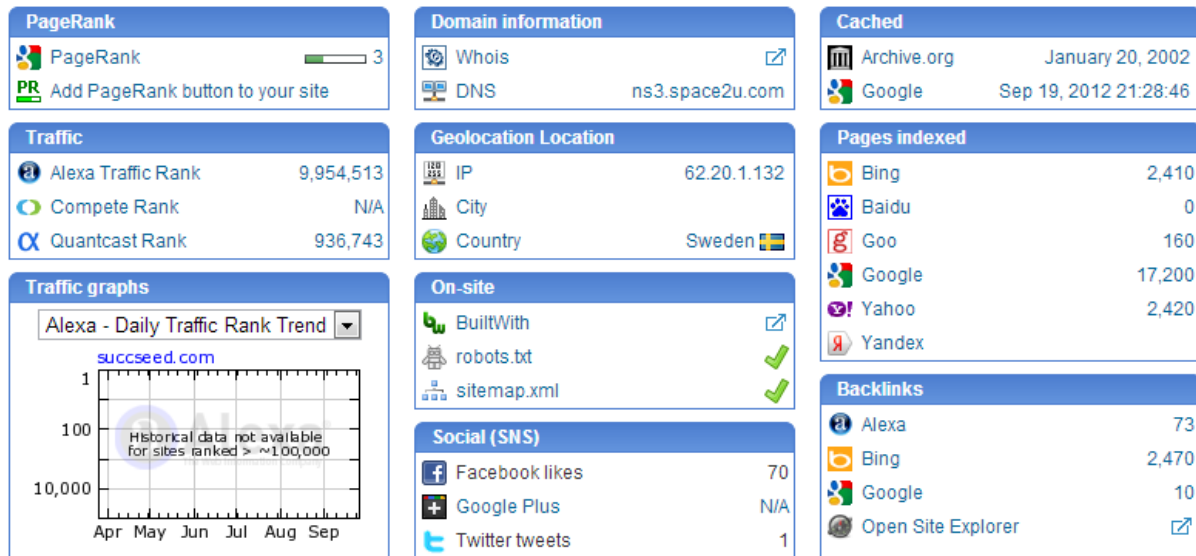


Figure 5

Business

As the tagline suggests this is an online retailer of cactus and succulent seeds. This immediately gives us the main revenue source. Apart from selling seeds the business also sells books on the topic of cacti and succulents. The target audience for the website is multinational including UK, Germany and Sweden. Having such a large clientele assures high profits even though the prices of the actual seeds are small.

Commodity

The content is made up of articles and stock lists. The website provides a variety of articles for example a guide on how to sow cactus seeds – this valuable information is crucial for successfully growing a plant. The presence of such articles raises the customer satisfaction by increasing the survivability of sown seeds sold by the website.

Facebook – In addition to all of the content that the website provides there also is the option to follow this site on Facebook where they have posted some amazing photos of cacti blossoms. The use of social media is good SEO practice which provides some additional exposure of the website to the open internet. The aim is to attract new clientele by using the Facebook network connections of the current users.

Navigation – The navigation is fairly straight forward, the link description is concise and unambiguous. The one problem I found is the part of navigation which is in the right sidebar. In my opinion this is not a suitable place for it as it unnecessarily divides the navigation in two different places. It would be more consistent if all navigation links were on the left sidebar and all the images and ads to be on the right sidebar.

A weak spot of this website might be its categorisation system. Basically it is a very long alphabetically ordered list of all plant seeds' names that are available on the website. In my opinion the list is far too long and forces the page to stretch out of proportion leaving a lot of unused real-estate.

Functionality - The ability to search through the website quickly is very important for many users and what better way to do this than by a search bar. This functionality is present in this website and works very well. The input query translates into a list of related seed sorts which are available for purchase. A great tool for returning customers - once they know what they want they only have to type it into the search bar and hit the "Enter" key.

Breadcrumbs – They keep track of the whereabouts of the user or which page has he/she visited in order to reach the current page with respect to the information architecture of the website. Breadcrumbs are a fantastic way to keep track of the browsing path of the visitor. A great aid when navigating especially in vast websites with many levels, however they will do as well in a smaller site.

Languages – As previously noted this website offers the user the choice of three languages. This feature ensures that a wider audience will be able to use the site.

Currency – Allows the user to see the prices of their chosen item in the currency they are most comfortable with. This way the process of purchasing is a bit more

straightforward, because there is no need to bother with other currencies and their respective conversion rates.

Firmness

HTML – Doctype 4.01 Transitional has been used for this website. Validation errors are very few almost negligible. However “div” tags have been overused and almost abused especially in the case of the products grid. Many of those tags could have been avoided without much hustle and that would have resulted into a much lighter and semantic structural layer. Another issue was the use of capital letters in some of the HTML tags. Even though this validates under the “Doctype 4.01 Transitional” it is not good practice to do so.

CSS – The use of CSS here is poor with a lot of inline styling. This is one of the basic rules of Web Design – keep the structural layer separated from the Presentational layer. Reviewing the code closely I discovered it was very tedious – instead of using shorthand versions every command here has been written in its fullest form (padding-top, padding-bottom, etc.). The code certainly is more readable, but it makes the style sheet extremely long to read through. The longer CSS files also means longer time to load in a browser. Finally no CSS3 functionality was used in the making of this website.

JavaScript – The scripting language is used a lot here due to the retail nature of the website. The shopping basket system uses a lot of JavaScript functions to make the experience interactive and dynamic. For example if an item is added to the shopping cart, immediately on click you receive feedback from the page right below the header that you have 1 item in the basket and your total in payment so far.

PHP – The checkout form has been created with the help of PHP in combination with JavaScript.

Delight

The layout of the site is out of standards with width of 996 pixels. Even though this does not exceed 1024 pixels, which is currently the accepted target for screen support (when we talk about fixed size websites), it is still unacceptable. A few browser elements need to be considered such as the sidebar which tends to decrease the width of the viewport (the viewport is the visible portion of the canvas) of the browser. Due to issues such as this a tendency formed amongst web designers to use the width of 960 pixels as the optimal size of your fixed width web pages.

Colour choice – The product that is sold here is so colourful and vibrant, but the website does not reflect that at all. The colours feel very dull almost lifeless. The chosen colours might be better associated with dried cactus plants and not the fresh look of the products' photos. In the vision of the creator this green-yellow colour might have been related to cacti environment such as the desert. However that does not complement with the header banner displaying snowy mountains.

Alignment – Apart from being a three column layout this website does not seem to follow any other alignment. Everything looks just a bit out of place. For example in the left sidebar there is a "Home / reset menu" link followed by the navigation. Notice how the first link does not align with the text from the navigation. The alignment issue does not stop with text. The header banner does not stretch to cover the complete width of the page. One could argue that this is intentional so it could attract the attention of the user. I might agree with that in the case of a 1024x768 screen, however on a bigger screen the banner just looks out of place.

Images – One of the best features of this site is the quality of images used to represent the plants they sell. This is very important when you are promoting a product to the potential clients. A good photo will always grab the attention of the user and may be tempt him/her into a purchase.


Call to action – When you browse through the products it is impossible to miss the call to action buttons and prices which as if yell at the user. The effect is definitely achieved, but it might be a bit too much. The chosen colours are too saturated and the choice of red for the "Buy" button and price is not appropriate.

Yes the colour red is highly visible but it also expresses urgency, alert or error. It appears that the client is pushed to buy the product.


The typesetting here might seem generic, but are not almost all retail websites doing the same thing. They prefer to play it safe by choosing a widespread and thoroughly tested font so there could be no accessibility issues. Line height is another legibility factor which was not satisfied in this example. This significant for readability factor is left to its default value. This is clearly not enough as you could notice in the article "How to sow" (<http://www.succseed.com/how-to-sow.html>). The text lines are just too close to allow for easy reading.

Due to the fact that this is an online seeds shop we cannot expect more from the look and feel of the website, because its priority is to provide the needed functionality for an accessible and easy purchase.

(Screenshot of the website is on the next page)



SuccSeed


Priser i: SEK
Din varukorg är tom















Hem / återställ meny

- Böcker
- Frön - Kaktusar
- Frön - Suckulenter
- Frön - Övrigt
- Plantor
- Tillbehör
- Villkor & info
- Förkortningar
- Nya artiklar!
- Nyheter
- Kontakt - Om oss

Välkommen till SuccSeed!

Skandinaviens största urval av kaktus- och suckulentfröer, böcker och tillbehör sedan tjugo år! Vår webshop är uppdaterad med ca 300 nya sorter, totalt närmare 3000!

Några av våra favoriter!


| | | | | |
|--|--|--|---|---|
|  <p>Trichocereus peruvianus (Lurin, Peru) 6463</p> <p>8:- Läs mer Köp</p> |  <p>Lobivia maximiliana v. miniatiflora WR 452 (Inquisivi, La Paz, Bol) 4702</p> <p>8:- Läs mer Köp</p> |  <p>Adenium obesum ssp. multiflorum 6464</p> <p>15:- Läs mer Köp</p> |  <p>Aztekium hintonii 4838</p> <p>25:- Läs mer Köp</p> |  <p>Astrophytum caput-medusae 5968</p> <p>25:- Läs mer Köp</p> |
|  <p>Geohintonia mexicana 930</p> <p>25:- Läs mer Köp</p> |  <p>Pygmaecereus bylesianus TB 260.1 6369</p> <p>8:- Läs mer Köp</p> |  <p>Ferocactus gracilis gatesii (Bahia de los Angeles, BCN) 6383</p> <p>8:- Läs mer Köp</p> |  <p>Discocactus magnimammus 'hartmannii' 6386</p> <p>12:- Läs mer Köp</p> |  <p>Discocactus horstii HU 360 (Serra de Barro, Grao Mogol, Minas Gerais, Brazil) 6389</p> <p>15:- Läs mer Köp</p> |
|  <p>Pediocactus knowltonii 6441</p> <p>12:- Läs mer Köp</p> |  <p>Rebutia pygmaea v. setifera WR 333b (Tafna, Argentina) 6498</p> <p>8:- Läs mer Köp</p> |  <p>Escobaria missouriensis 'caespitosa' (Fayette Co, TX) 763</p> <p>12:- Läs mer Köp</p> |  <p>Encephalocarp strobiliformis (Dr Arroyo, NL) 2060</p> <p>15:- Läs mer Köp</p> | |

Sök

Sök här!


- Tips inför frö-sådden
- Odlingsråd
- På fönsterbänken (Eng)
- Vinterhårdiga kaktusar
- Tips till nybörjare
- Reseskildringar (Eng)

Inspirerande böcker ...




CACTI & SUCCULENTS
for COLD CLIMATES
274 Outstanding Species for Challenging Conditions


Våra favoriter



Besök oss på Facebook!



Svårt att välja?



(Species may vary from order to order)

Copyright Mats Winberg

2012-08-29

Figure 6

4. Project Plan (Business, Commodity, Firmness, Delight)

4.1. Business

The main purpose of this website automatically rejects the idea for any kind of revenue coming out of it being online – at least not as a direct income. Its original aim is to promote the skills and competence of a developing web designer to a potential employer or in other words - a portfolio piece of work. The idea is to create a website which incorporates a set of applied web design skills and techniques which will be then present as a project into my personal portfolio website. If successful this arrangement would indirectly provide a satisfactory revenue stream for the creator of the website and ensure career progress in the field of web design.

A less likely but still viable business option would be to sell the whole website. If the website gains traction some cacti related business like online retailers of cacti seeds might want to buy it in order to improve the look and feel of their own site.

4.2. Commodity

Content

After carefully considering the initial ideas for content, a set of categories has been chosen to represent the types of articles contained in the website. The categories have been chosen based on popular pages of the competitors' websites (Paul Anthony. (December 6, 2010). [13 innovative ways to find popular pages on a website](#)) and feedback from a set of volunteer beta testers.

Home – This page would naturally contain a welcome message along with a catchy and friendly tagline which would immediately communicate the feeling

and purpose of the entire website. A suitable image accompanies the words in order to support their message.

Fun – The content of this page is self-explanatory. Everything fun and interesting related to cacti is included here. This includes funny images or illustrations of cacti, jokes about cacti and, things inspired by cacti. The content is presented in a blog like manner with every new post placed at the top of the main content column. As subpages of this page there is the option to play two games where the hero in both of them is the famous "Cactus McCoy". The games are entirely created with flash, so they are integrated into the page as such.

Facts – If the visitor wants to get acquainted with cacti it is best to start with a list of facts about cacti and succulents. Interesting information specific for cacti and their environment is listed.

Tips – A fan-site is not complete without containing some valuable tips and tricks about growing your own cactus. The newcomers would definitely like to know: Where to keep your plants, How to look after your plants, How to feed and water your plants, How to pot up your plants, Growing tips, etc.

Uses – This page contains a short introduction of what a cactus plant could be used for. It is with the help of a sidebar menu that leads the user to multiple subpages with more detailed information about how cacti and other succulents are used today or in the past. Each subpage is dedicated to a certain category for example food and drink, medicine or cosmetics.

About – Very common type of page - the "About" page where additional information about the purpose of the website is revealed along with details of who is responsible for its creation, when was it created and also why. It seems most appropriate that the elevator pitch (EP) from the beginning of this document should also reside on this page. The EP very succinctly describes the purpose of the site and reveals information about the author.

Functionality

The entire website's information is distributed in separate pages for each different category – Home, Fun, Facts, Tips, Uses, About. Every category has a link on the main navigation. The main navigation is placed in a visible location on the very top of each page, so it can make a significant impact on the visitor's first impression. In addition the navigation has the ability to show the current location of the user w.r.t. main categories, by the means of a bloom that "grows out" of the cactus button. This is a very important usability functionality. (Jacob Gube. (January 4th, 2010). [Showcase Of Modern Navigation Design Trends](#))

The entries about cacti uses are accessible on the "Uses" page. However the different uses also need separate categorization, so a secondary navigation is introduced in order to ease the user when navigating in the website. The new navigation appears as a sidebar on the left-hand side of the main content container and leads the user to more detailed information. This secondary navigation is designed to follow the viewport of the users as the page scrolls down. This way the visitor has quick and direct access to all other subcategories.

The "Fun" category of the website is aimed to be a constantly updated page where new material could be added daily. With the help of blog CMS such as Wordpress (<http://wordpress.org/>) it is possible to organise the content of this page easily through a back end user interface. Instead of coding in every new piece of content into the site, a user friendly environment is able to seamlessly integrate it without worrying about layout or looks. Everything would already be pre-set as a page template into the CMS's options. This interface is very similar to an ordinary text editor, thus it is very easy learn and use. (Find more information on CMS' works and installation in Section 4 – Firmness, CMS)

For the creation of this website were used either original material or referenced external content only. The majority of main pages are made up of original content aimed to improve the On-site SEO of the project. However pages such as "Tips" and "Uses" are populated with the contents of an external source in order to provide accurate information to the users.

It is very important when using external material such as images or articles to accredit the work of the author when integrated into another website. Almost every image on the website has a source and author which are attached to each image as an image caption. However this is not an ordinary caption it is a hover effect on the image itself. Once the pointer of the mouse is right over the picture a caption box slides onto the image with the references. Only exceptions for this functionality are the images from "Fun" page which are managed by the Wordpress CMS and do not allow the use of this caption technique. (Find more information about the caption technique in Section 4 – Firmness, CSS)

In the footer of every webpage of the site there are buttons for sharing. They enable the user to share the page they like with his/her friends on social media websites such as Facebook, Google+ or twitter. This convenient feature makes sharing very easy - just a "click" away.

Information Architecture

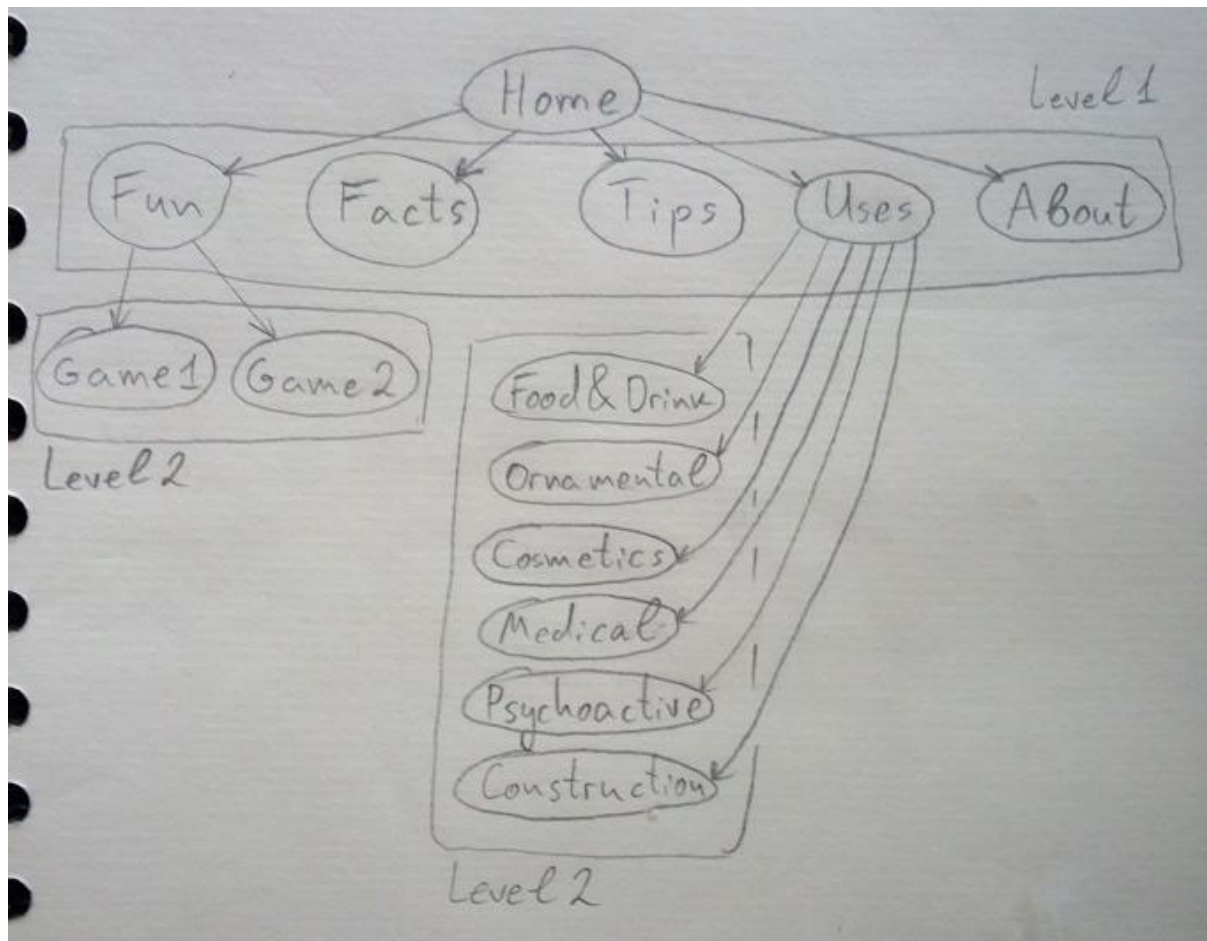


Figure 7

Organisation system – All the information on the website is categorised by subject.

Labelling system – as described above in the *Content* section everything is placed into categories which names capture the essence of the contained information. Even though they are comprised of just one word, they aim to provoke interest and proceed to the next page. The categories give enough information to give you an idea of what is ahead but leave it up to you to find out the rest on your own.

Navigation systems – The navigation on this website is designed with simplicity in mind. There are six buttons in the main navigation and one of them is the “Home” link. This means that a first time user is given a fairly narrow choice of well-defined and obvious categories. When presented with a big number of choices users tend to get confused and overwhelmed. When presented with

fewer but more provocative choices the user is likely to progress further into the website.

In order not to make the main navigation overcrowded with links, a secondary menu is used for the subpages' links of some of the main categories. This navigation is aimed to contain a different set of links with respect to the page it is attached to. For example The Level1 page "Uses" has a secondary menu and in this case the links in it are for the different types of uses.

As explained the sidebar navigation does not have a fixed position, instead follows the user for his/her convenience. Even though the position of the main navigation is very visible it is not as convenient as the sidebar menu when reading through longer articles. To compensate for it, a navigation mirroring the links of the main navigation is placed in the footer of each page. This intentional redundancy removes the need for scrolling the page back to the very top in order to choose another link from the main menu.

4.3. Firmness

HTML -> XHTML -> HTML5 - The main purpose of this project is to effectively showcase the skills of a Web Designer/Developer so what better way than implementing/using/experimenting with some bits of the emerging HTML5 in the creation of this website. In its essence this is the structural layer of the website. It is responsible for the order in the document/webpage. Every webpage is like a document with headers, sub headers, paragraphs, etc. and this technology helps to denote the semantic meaning of each piece of text on the website – if it is an article or excerpt, header or footer, etc.

The website is intended to be with as few verification errors as possible. This is ensured that by adopting the XHTML semantic rules. XHTML is a type of HTML which enforces stricter rules of conduct. An example rule is the obligatory closing slash in `` tags – e.g. if an ``. The slash is important here because it represents the end of the tag. This is not the case in the not so strict HTML rules where it is allowed to end the tag without the slash like this `... >`

HTML - ``

XHTML - ``

Admittedly this issue might not seem sufficient, however there are more examples which prove that the XHTML provides higher legibility of the written code than HTML:

DOCUMENT STRUCTURE

- XHTML DOCTYPE is mandatory
- The XML namespace attribute in `<html>` is mandatory
- `<html>`, `<head>`, `<title>`, and `<body>` is mandatory

ELEMENT SYNTAX

- XHTML elements must be properly nested
- XHTML elements must always be closed
- XHTML elements must be in lowercase
- XHTML documents must have one root element

ATTRIBUTE SYNTAX

- XHTML attribute names must be in lower case
- XHTML attribute values must be quoted
- XHTML attribute minimization is forbidden

List of differences between HTML and XHTML ([w3schools](http://www.w3schools.com))

So far it has been made clear that the website is built as a HTML document type but conforming to XHTML rule in order to preserve legibility and order. Where does HTML5 fit in then? Well this new and emerging technology brings many new features which its predecessor was lacking. Even though this new version works with all previous HTML instances, it does not encourage the uses of deprecated tags. However new tags are also put into play. The new tags aim to "legalise" or codify widespread ways for web designers to accomplish tasks – "Pave the cowpaths" (Jeremy Keith, HTML5 For Web Designers, p16). For example up until HTML5 web designers everywhere used "div" tags to define the boundaries of their headers or footers. But now that HTML5 is here it provides the means of a more semantic structural layer. The "id" and "class" attribute do not mean anything for the structural layer they are only meant to be pointers for the CSS commands. The "div" tags alone are also not comprehensible to a web browser – they just appear as a division or a section in an HTML document (http://www.w3schools.com/tags/tag_div.asp). The new tags bring meaning and purpose to the browser. Now it can differ if the piece of code that it is reading is header or footer specific. Tags like <article> also help screen readers to better interpret the structure of the web document to a visually impaired person.

| Before HTML5 | After HTML5 |
|---|---|
| <pre><div id="header"> ... </div></pre> | <pre><header> ... </header></pre> |

| | |
|---|---|
| <pre><div id="footer"> ... </div></pre> | <pre><footer> ... </footer></pre> |
|---|---|

CSS - Again the aim is for the code is to be fully verified. Some of CSS 3's new features will be included in the styling of the new website. In order to accommodate the use of different browsers and ensure cross-browser compatibility a "graceful degradation" method will be adopted while developing the website. Having said that I would also like to note that cross-browser compatibility would not be a priority due to the experimental nature of the project. In order to show the ability to quickly learn and use new technology I have to implement some styling techniques which are not fully supported by all web browsers and do not have subtle fall-back versions.

In order to achieve a stylish and original look most websites use various custom-made graphics which are composed of many images. The more images there are on a website the longer the browser will load the pages. However this website's graphics are created with the least amount of images possible. For example the main container which resembles a very big cactus and holds most of the content of the page is made out only from 4 images - the blossom in the top-left corner of the construction, the cactus ball in the top right corner and two types of thorn images.

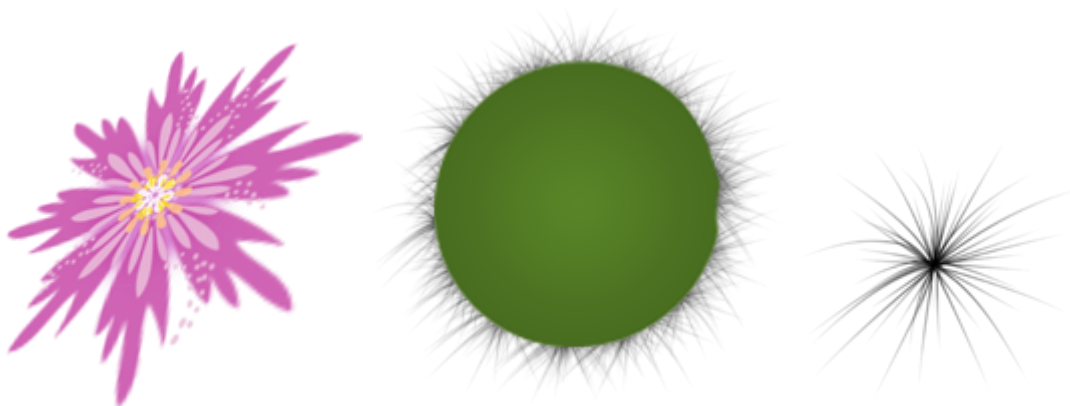


Figure 8

It was extremely difficult to achieve a very close representation of a cactus without being too invasive with image use, especially for illustrating the spines/thorns. For the purpose two "div" tags have been used – "contentwrapper" and "content". The first div contained the all the images while the second had only CSS3 to work with. Multiple background image techniques was used to align the thorns on the left, right and top edges of the "contentwrapper", by repeating the same image multiple times so it covers the full length of the div. The second div is nested into the first by introducing enough padding in order to allow for the spikes to show beneath the "content". The second div was then painted green with a darker thick border and some inset box-shadow. Both divs use the CSS3's rounded corners property to achieve a realistic look. However the rounded corners also cut off the spikes situated at the top corners of the divs. This is where the other two images come in place. With the help of pseudo-elements such as `:before` and `:after` it was possible to place the two images right on top of the problematic areas and disguise the issue. The pseudo-elements are absolutely positioned and have the two images as background images.

As already noted CSS3 multiple background images is one of the techniques used in this project. Most of the environment recreated in the website is made of a number of images. The uniqueness of this CSS3 property is the ability to host many images simultaneously under the same HTML tag (e.g. `<body>`, `<html>`). An example for this feature is the clouds in the sky. Both images are placed as background images for the `<body>` tag and are given different location as a percentage from the X axis and the Y axis with respect to the space provided by the body. If the window is resized it is visible how the clouds subtly change position in order to keep the same percentage distance. Another example is the dunes of sand on top of the footer which if resized move in opposite directions from one another.

The main navigation has the ability to change its appearance whenever the cursor hovers over them – if a user hover over a button a flower pops up. This is called a hover effect and is achieved by changing the background image of the

particular button. However this method has one very subtle flaw. If a first-time visitor or someone who has cleared their browser cache hovers over a main navigation button, there would be a moment, just a fraction of a second where nothing will happen. At that time the hover effect image is loaded for the first time in the browser so it takes time to do so. In order to prevent this from happening another technique is adopted – preloading images. This means that the images used in the hover effect are loaded before the effect has to take place. For this project a very simple CSS solution is used – just load the required images as background images to a pseudo element (`:before` or `:after`) before the button element. The method uses the natural order of executed commands in a CSS document – top to bottom. In this case the hover images were preloaded in the `:before` element of the `<nav>` element and not just directly in the button's `:hover` element.

But not everything is about images, the typography of a webpage is crucial for the impact of the page as a whole. This important aspect of Web Design was left to work with only a small set of web safe fonts, but no more. CSS3 offers its new “@font-face” property which allows the Web Designer to use his own fonts hosted alongside the style sheet of the website.

Another wonderful feature of CSS3 is the background gradient. A very helpful online tool (<http://www.colorzilla.com/gradient-editor/>) conveniently helps you with code required for the gradient effect. The code is not complex however it is tedious to do by hand and it also requires extensive fall-back code in order to support a wider range of browsers. The tool allows you to visually select and customise a gradient and it returns the needed code for it to work in the style sheet.

Animations in websites have always been a JavaScript or Flash domain. For the first time CSS3 brings this functionality on the table as well. This property is as easy to use as any other CSS feature. This project has two instances of animation which bring the desert picture to life – the sandstorm going through the sand dunes and the vulture flying across the clear sky. Their mechanisms are similar, but for the purpose of being an example the sandstorm will be more straightforward. The image of the sandstorm is placed in a div as a background image. The same div is set to be absolutely positioned with respect to its parent

- the div element which holds the sand dunes background image. The next step is actually creating the animation. It is achieved by carefully separating the wanted animation into a few sections called keyframes. Each keyframe is a checkpoint, if you will, that the browser follows when rendering the animation. In the case of the sandstorm the first keyframe is its initial position which is as far to the left on the screen as possible. Next checkpoint the sandstorm is expected to move a quarter of the screen so the absolute position is set accordingly, and so on.

```
@keyframes sandstorm{  
    0%   {right: 100%;    opacity: 1;}  
    25%  {right: 75%;    opacity: 1;}  
    50%  {right: 50%;    opacity: 1;}  
    75%  {right: 25%;    opacity: 1;}  
    100% {right: 0%;     opacity: 0.1;}  
}
```

When the set of keyframes is complete the animation follows their exact instructions. At this point the browser renders the location of the element in a continuous manner – it extrapolates the path and speed of movement from the given distance and time, thus achieving animation. (w3schools - http://www.w3schools.com/css3/css3_animations.asp)

Image captions were introduced as a feature of this project in Section 4 – Commodity – Functionality. The technique for achieving it was adopted from a tutorial written by CSS genius Chris Coyer. It uses a combination of HTML5 elements (`<figure>`, `<figcaption>`) and a pseudo-element to transition the hidden caption from transparent to visible state and onto the image. First, the `` and `<figcaption>` are nested in `<figure>`. The `<figcaption>` is moved temporarily outside the boundaries of the parent tag with the help of `overflow:hidden;` property. Upon hovering over the figure, the caption is brought back into `<figure>` and right on top of the image. For more details on coding

inspect the CSS code of the website or visit Chris Coyier's tutorial. (Chris Coyier. (29 March 2011). [Slide In Image Captions](#). CSS-Tricks.)

JavaScript/jQuery - For the behavioural layer of the website JavaScript will be used. Most likely free jQuery functions will provide the needed level of interaction which the website requires. An example of jQuery use is the floating sidebar menu in the "Fun" page – every time you scroll down a long page which spans longer than the height of the screen, the sidebar floats along with the viewport in an animated fashion.

The scripting language is also used for other not so obvious functionality of the website. For example the Share buttons in the footer - the code for them is provided by <http://sharethis.com>. JavaScript also enables Google to keep track of the traffic generated to the website.

Flash – two flash games have been integrated into the pages of the website with the help of the `<object>` element.

PHP - this website could be a collection of many pages of cacti related content. In order to ease the creation and maintenance of so many pages, PHP technology will be used. Here is how it works - header, content, sidebar and footer are the standard partitions for each page of the website. They are basically the foundations of a webpage. Each of those parts contain typical for them elements. For example the header is often a place where the coding for branding and main navigation is kept; the content contains the main informational payload of the page e.g. an article; the sidebar could contain a secondary navigation as it is in this case; finally the footer displays a main navigation shortcut at the bottom of each page along with some sponsored links, terms of use and copyright information. Only one of those building blocks changes its content completely when used for the creation of different pages. The others' content stays the same throughout all webpages – Home, Fun, Facts, etc. This is where PHP comes into place. This technology allows the webmaster to cut up an HTML page into the previously mentioned partitions and then reassemble them in a new PHP document. The separate pieces (`header.php`, `sidebar.php`, `footer.php`) are called with a simple command such as

`<?php include("sidebar.php");?>` . This feature is called modularity and it allows us to reuse a recurring piece of software without having to repeat the same code. Now the web designer need not make changes to all existing pages in order to add a link to the footer – a simple correction in the `sidebar.php` would make all pages which use the `sidebar.php` to inherit the change. This method also helps to prevent mistakes such as typos when changing the same piece of code on all separate pages.

PHP also is able to operate with conditional statement "If ... then...else..." which was very useful for coding in the main navigation. The intension for it is to indicate if the user is currently on a certain page. For example if he/she goes to page "About" the cactus button from main menu with "about" text on it should also have a pink blossom at the bottom – this indicates the current page. So if the whole navigation is on its own a PHP document, how is it supposed to know on which page it is loaded in order to set the current page to current. The answer is that each page contains a variable (like so `<?php $this_page = "fun";?>`) which is read by the PHP parser and according to this variable the navigation can decide through a series of IF statement on which page it is loaded and apply the current page image. (Appendix A for the code)

MySQL - this technology is used by Wordpress to store information from users such as comments on blog posts, the blog posts themselves, account information and more. The data is stored in the form of a table which is queried every time the CMS loads its posts or is filled with new information upon creating a new post. For the installation and use of Wordpress the creation of a MySQL database is required.

CMS - this piece of software speeds up the process of updating the website with new information, after it has been already fully developed and released. There is no need to dig into the source code of the website – suitable for use even by the inexperienced user. This technology would also provide new functionality to the website such as user comments and other widgets that the chosen CMS is offering. The CMS of choice in this particular case would be the well-known Wordpress. During my research into different CMSs I found out that this blogging system behaves very well in the hands of the developer or user - it is extremely easy to use and integrate into the design of the new website. It allows

you to create your own styling/design of the website making it unnoticeable that is it built on Wordpress. It is also very light and flexible – comes as a basic package and allows you to choose how complex should its functionality be. For the purpose of this project only one page has been fitted with a CMS – the “Fun” page. The reason for that is that the content of this particular page is expected to be updated regularly, thus it needs a fast way to add new information on the page.

If the use of CMS is so beneficial why not used it for the entire website? This project has the purpose of being a portfolio piece of work, thus there is no client to receive the website after it is ready. The project acts a platform to showcase the skills of a Web Designer/Developer. In addition, after working with the Wordpress CMS in past project it became evident that the system would reduce the flexibility of control over the website. As a final reason for avoiding a website-wide use of Wordpress is that the coding used in the Wordpress templates does not conform fully to the semantic nature of the newly emerging HTML5. This defeats the intension to showcase the ability to apply the new technology in this project.

SEO - this might not be an actual technology, however it is vital for the publicity of the website. Search engine optimisation helps the website to become easily findable by a search engine such as Google, Bing, Yahoo, etc.

In order to get the site going and invite some traffic, different methods were used for achieving web publicity. SEO fall into two categories – on-site SEO and off-site SEO (or SEM for Search Engine Marketing).

On-page SEO: covers all the things a designer/content creator can do to help a search engine decide what the page/site is about.

Off-page SEO: covers marketing and promotion, including in-bound links, social network links, directory links etc.

Excerpt from a [David Watson's presentation](#).

One of the best off-site SEO methods to encourage traffic to a website is to go wild with any type of social media. Using every social media you can get your hands on will ensure a vast pool of users. For example a simple post with the link to the website will be seen on the News Feeds of all your friends in

Facebook. Once they like it and/or share it the exposure of the website increases rapidly – very similar to chain reaction. Facebook also offers the option to include a link of the website into the details of your account. Not so active method for promotion but still the search engines track every inbound link made to your site and a Facebook link is definitely worth having. Facebook is a top rated social media website - the search engine ratings for it are very high, so when using the options that this media gives you are essentially piggyback riding on its fame. Another way to use Facebook to your advantage is to make a dedicated Facebook page for your website. If the page gains popularity and many people like it, you have the ability to keep those people updated with the new content from your website. For this project such page would not be necessary because the main purpose of the website is to act as a display of the skills of a Web Designer/Developer. Of course if "cactiness" becomes a success in the web the project could further develop its main goal. For now this option will be left to future development. The rest of the social media used for this project have similar function and effect on the SEO of the website – Google+, twitter, LinkedIn, Skype.

A great method for online promotion is the direct inbound linking. As previously mentioned, search engines track every link made to your website. If the link comes from a relevant reputable website, it has a more positive effect for the overall SEO. Of course it does not mean that links from less famous sites are bad – every link moves the targeted website up the PageRank. PageRank is a measure of relevance and the quality of incoming links. For the purpose of this project I have requested for link exchange with some of the website I have researched in Section 3 of this document. Even though the PageRank of those sites is low, there is a higher chance that a cacti fan would gain access to my website through those links.

On-site SEO is entirely dependent on the content of the website. A well written unambiguous and unique content would gain a lot, because search engines like new content. This is exactly what I intend to offer in cactiness.com. The key to a successful SEO is content containing key words which relate to the topic of the website. The purpose of those words is straightforward – any search engine query containing such key words will return the related content as a result. The better the content is saturated with the words the higher the website would come in the results. Of course this has to be achieved without overdoing it. Senseless repetition of word would get you nowhere – modern search algorithms ignore such abuse and might even penalise the site's ranking.

After applying the aforementioned SEO techniques, a "big bang" of visitors is expected after which a slow decline in new visitor will be observed. The attention then will be focused on the returning visitors.

Adobe Photoshop (<http://www.photoshop.com/>) – the most used image editing tool in the world of Web Design. This software would assist for the creation of

the website's graphics. It will be used to create the logo, backgrounds, buttons and the rest of the graphics in the website.

Sublime text 2 (<http://www.sublimetext.com/2>) – free/trail text editor with very flexible features which allow you to install custom packages in order to suit your workflow. This software is one of the main tools for the creation of this project. Every piece of code for this project is written on this tool and upon saving it is automatically uploaded directly into the server of the website. This allows for quick testing of any little change on the website while being hosted directly from the server. The alternative is to first create the website on a local computer and then upload it to the server. The disadvantage here is that there is no guarantee that the website will work on the server as well as on the local computer.

PNGGauntlet (<http://pnggauntlet.com/>) – this is a tool which helps to reduce the loading time of a website by optimising its images. PNGGauntlet is able to compress most images and reduce their size without losing any quality from the original image. This optimisation technique is called lossless image optimisation.

Hosting - the need of hiring some web space on an external server is not immediate. This step could be done at the final stages of the development of the website, just before the official launch. The hosting requirements for this project are not high – any hosting service will be sufficient. For this project a Bulgarian service provider called Superhosting was chosen.

Domain name - this is the URL (Uniform or universal resource locator) or the electronic address of the future website. The purchase of it must be done as soon as possible in order to reserve a unique name for the cactus theme e.g. cacti-goodness.com. This “address” has to be catchy, easy to remember and descriptive. Here are some of the options for such domain names.

Considered Domain Names:

- www.cactiness.***
- www.cactusness.***
- www.cacti-goodness.***
- www.cactus-goodness.***
- www.cactuslove.***
- www.cacticious.***

- www.cactilious.***

After a lot of feedback and consideration an official domain name has been chosen: "cactiness.com". It encompasses the purpose, meaning and feeling of the website. Immediately relays connection to cacti, conveys a joyful mood without pretending to be the ultimate source for all cacti material.

Testing and optimisation –

The website has been tested on all major web browsers. That includes Chrome, Firefox, Safari, Opera and Internet Explorer (IE). The focus of the s has been mainly on the latest versions of those browsers. The website has shown consistency in both visual and technical aspect in all browsers apart from IE. The issue there is that it does not support CSS3 animation which renders the otherwise animated elements static.

In order to ensure maximum possible optimisation of this website, a range of tools and techniques have been used. On this matter everyone turns to Google - <https://developers.google.com/speed/pagespeed/insights>. This online tool scans through the website and gives away tips on how to improve the performance. There is also a video made by Chris Coyier: "[Let's Do Simple Stuff to Make Our Websites Faster](#)". He makes some very good points on loading time and how to improve it without putting too much effort in it. Here are some of the techniques considered for this project.

Lossless images are the easiest way to shave of some extra KB from a website. There are free software such as PNGGauntlet which takes any image and compresses it without loss of quality. For this project the total amount of savings is 115.86KB and in terms of loading time this is a lot.

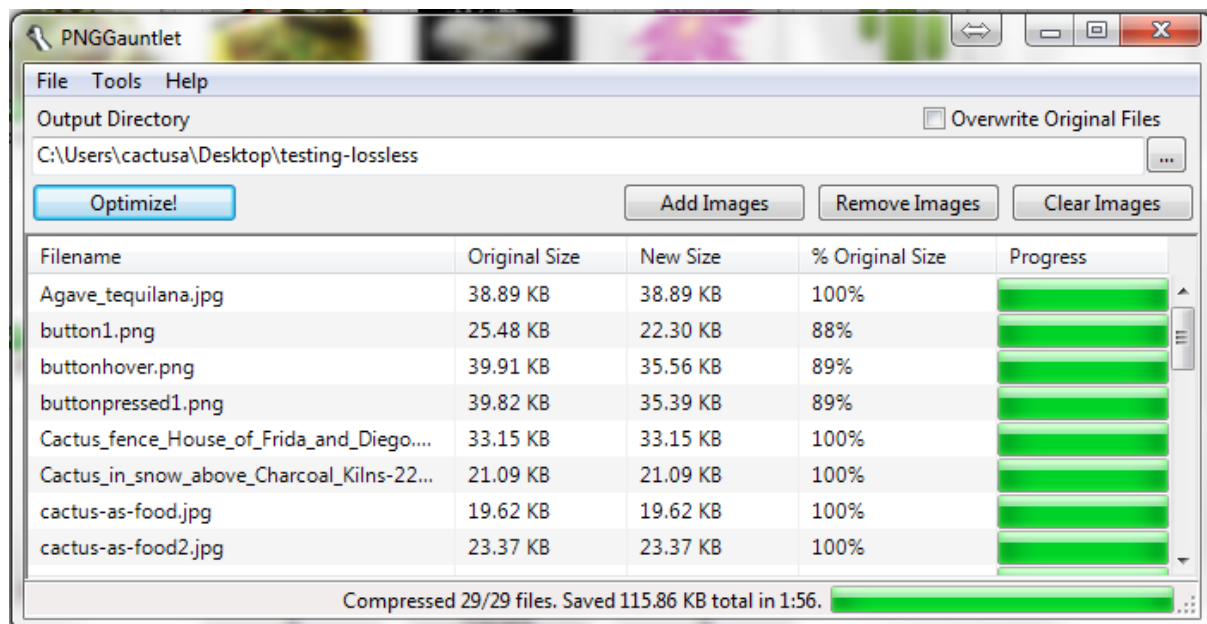


Figure 9

Gzip is another compression method for improving on performance. However it is not aimed at images, but rather at CSS or JavaScript files. This technique results in far less savings but it is still worth considering given how easy it is to achieve. (Explained by Chris Coyer in his video) However there is one downside to it – the resulting documents after compression are barely readable. Everything squished on one line will make examination of the code extremely difficult. For the purpose of this project Gzip-ing is not used in order to allow for easy reading.

Caching enables a webmaster to take advantage of client side memory. When a user loads a website in his/her web browser, it has the ability to store the resources of the site temporarily – images, CSS files, JavaScript files, etc. If the user decides to go back to the same website at a later time the browser loads the website from its own cache, unless there have been changes made to the site. This means that there is no transfer of resources between server and user, thus resulting in quicker loading and happy user. Once again the application of this technique is simple – with a few commands in the “.htaccess” file located in the root folder of the website, one can “tell” the browser how long to keep a certain resource. Depending on the type of the site time intervals may vary.

Usability and Accessibility – In terms of usability the website is one step ahead just because HTML5 has been used. The more semantic tags allow for screen reader to better interpret the parts of the web document to a visually impaired person. The main navigation is programmed to accept keyboard shortcuts for easy navigation – “Alt” + “number”. All links in the main menu are assigned with a number 1-6 and left to right. For example “Alt” + 1 leads to the “Home” page, “Alt” + 2 leads to the “Fun” page and so on.

The main navigation is built to be easily used both on desktop and touch screen. The large are buttons help to improve accuracy when using touch screen. In addition the navigation has the ability to show the current location of the user w.r.t. main menu categories, by the means of a bloom that “grows out” of the cactus button.

Fluid layout – The project was built with the intension for its layout to be fluid. This means that the website will react and rearrange its content according to the size of the screen. This technology is achieved by using media queries which allow for the use of different CSS properties depending on the screen size.

This technique has been partially implemented for this project but not fully developed. The container and almost everything responds to resizing the windows, but there are some non-responsive elements such as images that are not adaptable yet. However it is my intension to complete the task as the next phase of development.

been too serious. An accurate presentation of a cacti environment would have forced the website to contain precise and accurate information. This would strip away the fun part of my project. On the other hand I could not have gone all crazy and silly with walking cacti smiling at you. This would have made the site too childish. The aim was to hit the balance of the two approaches. So I ended up going for cartoon style illustrations with as realistic as possible look and feel.

My goal was to recreate every element of a desert scene in my own style: dunes of sand, sandstorm, clear sky, white clouds, bright sun, flying vulture, cactus plants, spines, blossoms. Every single one of the graphics used in the website is custom designed by myself, so that the resulting look and feel would be truly unique.

The realistic representation of the desert becomes complete only when the vulture and the sandstorm introduce some movement into the static scenery. The animation livens up the place as if it is almost real – the vulture slowly flying over the desert looking for its next pray and the unstoppable sandstorm enveloping everything in its path.

The colour palette was very easy to assemble, because of the website's theme – cacti and their natural environment. In nature every colour is in perfect synchrony, so the best way to pick the colours was to copy them from nature.



Figure 11

As already noted the website's look and feel is guided by nature. The same goes for the grid system of the pages. The only grid aligned portion of the website is the main content area of the "About" and "Tips" pages. Everything else is intended to be out of alignment, asymmetric and may be a bit chaotic.

The process of choosing a font for this website was very time consuming. A suitable typeface has to be fun, relaxed and very natural even casual. It has to possess a lot of character. Having considered all that and after hours of searching through Google Web Fonts and Font Squirrel one font stood out from the rest especially its Bold variation – BPreplay. It is a sans-serif font with a very large X-height, short ascender and short descender. The resulting font looks fat and succulent, just like the cacti.

ABCDEFGHIJKLM
NOPQRSTUVWXYZ
abcdefghijklm
nopqrstuvwxyz
0123456789!/?#
%&\$@ *{(/|\})

Figure 12

5. Analytics

The analysis of the website helps identify patterns of behaviour in the users which can be used to improve their online experience and steer future development of the project in the right direction.

For the first month of cactiness.com being online I have executed two Off-Site SEO campaigns focused on social media. The results of them are clearly visible in the graph below. There are two spikes in Visits – one is 16th September and the other is on 25th Sep - Both coincide exactly with publicity campaigns.



Figure 13

The bounce rate has been consistent with 40% - 50% variation, which is a very good achievement for a small website like cactiness.com. This means that only half of the users at any time immediately leave the website after their visited it.

The average visit duration of 7 minutes tells us that the content on the website is interesting to the users and they stick around long enough to read it.

| <input type="checkbox"/> | Page | | Pageviews ↓ | Unique Pageviews | Avg. Time on Page | Entrances | Bounce Rate | % Exit | Page Value |
|--------------------------|--------------------------|--|-------------|------------------|-------------------|-----------|-------------|--------|------------|
| <input type="checkbox"/> | 1. / | | 604 | 299 | 00:01:58 | 266 | 45.11% | 33.11% | £0.00 |
| <input type="checkbox"/> | 2. /fun/ | | 332 | 126 | 00:01:22 | 24 | 25.00% | 9.34% | £0.00 |
| <input type="checkbox"/> | 3. /uses/ | | 324 | 132 | 00:01:50 | 23 | 43.48% | 13.27% | £0.00 |
| <input type="checkbox"/> | 4. /facts/ | | 146 | 83 | 00:01:43 | 12 | 58.33% | 13.01% | £0.00 |
| <input type="checkbox"/> | 5. /about/ | | 102 | 80 | 00:01:35 | 7 | 57.14% | 25.49% | £0.00 |
| <input type="checkbox"/> | 6. /tips/ | | 95 | 72 | 00:01:28 | 6 | 16.67% | 9.47% | £0.00 |
| <input type="checkbox"/> | 7. /uses/food-and-drink/ | | 42 | 19 | 00:01:49 | 2 | 50.00% | 19.05% | £0.00 |
| <input type="checkbox"/> | 8. /fun/CactusMcCoy1/ | | 41 | 22 | 00:02:06 | 2 | 50.00% | 12.20% | £0.00 |
| <input type="checkbox"/> | 9. /fun/hello-world/ | | 17 | 15 | 00:01:53 | 6 | 66.67% | 35.29% | £0.00 |
| <input type="checkbox"/> | 10. /uses/construction/ | | 16 | 8 | 00:01:26 | 1 | 0.00% | 18.75% | £0.00 |

Figure 14

This table shows the popularity of the top 10 pages of the website. It is expected for the homepage to take the lead as it is the entrance to the website. Every new visitor would surely go through the front door unless search engines lead them directly to an internal page. It is surprising to see that the "Fun" page is ahead of the "Uses" page. I expected that the cacti uses would be of greater interest to people, simply because very few know about them. The table shows that there is bigger interest towards the fun section. As a result from this I conclude that it would be better if more effort is put in the development of the "Fun" page of the website. Perhaps user comment might be introduced to elevate the interest even further.

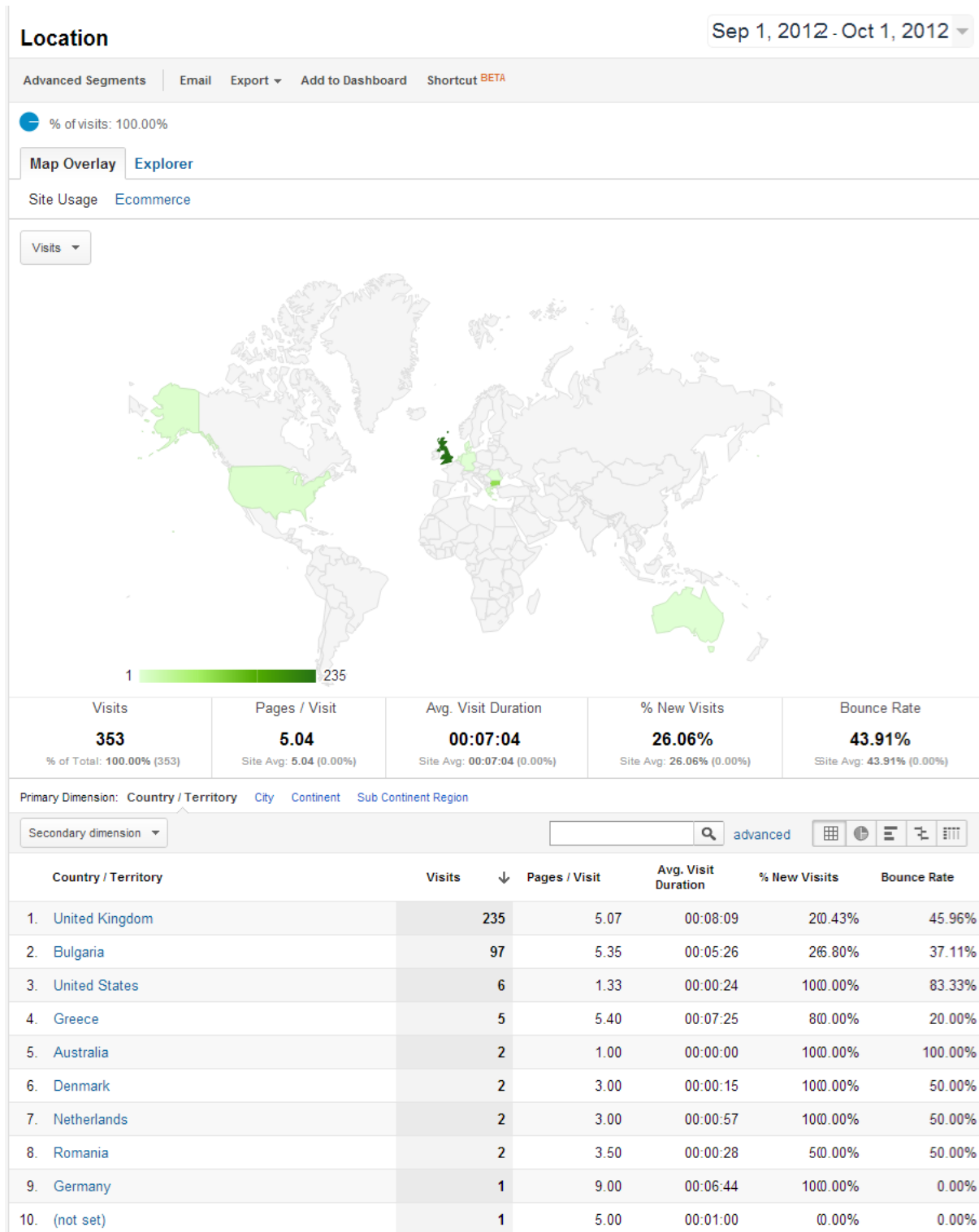


Figure 15

It is evident from the map above that the two countries with most visits are the UK and Bulgaria. This is natural because of the of the social media publicity campaign. The area of its effect coincides with the location of most of my social network connections. However there still are visits from other countries such as the USA and Australia. Large areas of those countries are covered with deserts and wastelands where only cacti and succulents grow. The people in such

countries are more accustomed to cacti thus their interest is greater. This is an indication that cactiness.com has to take into account the location of its users.

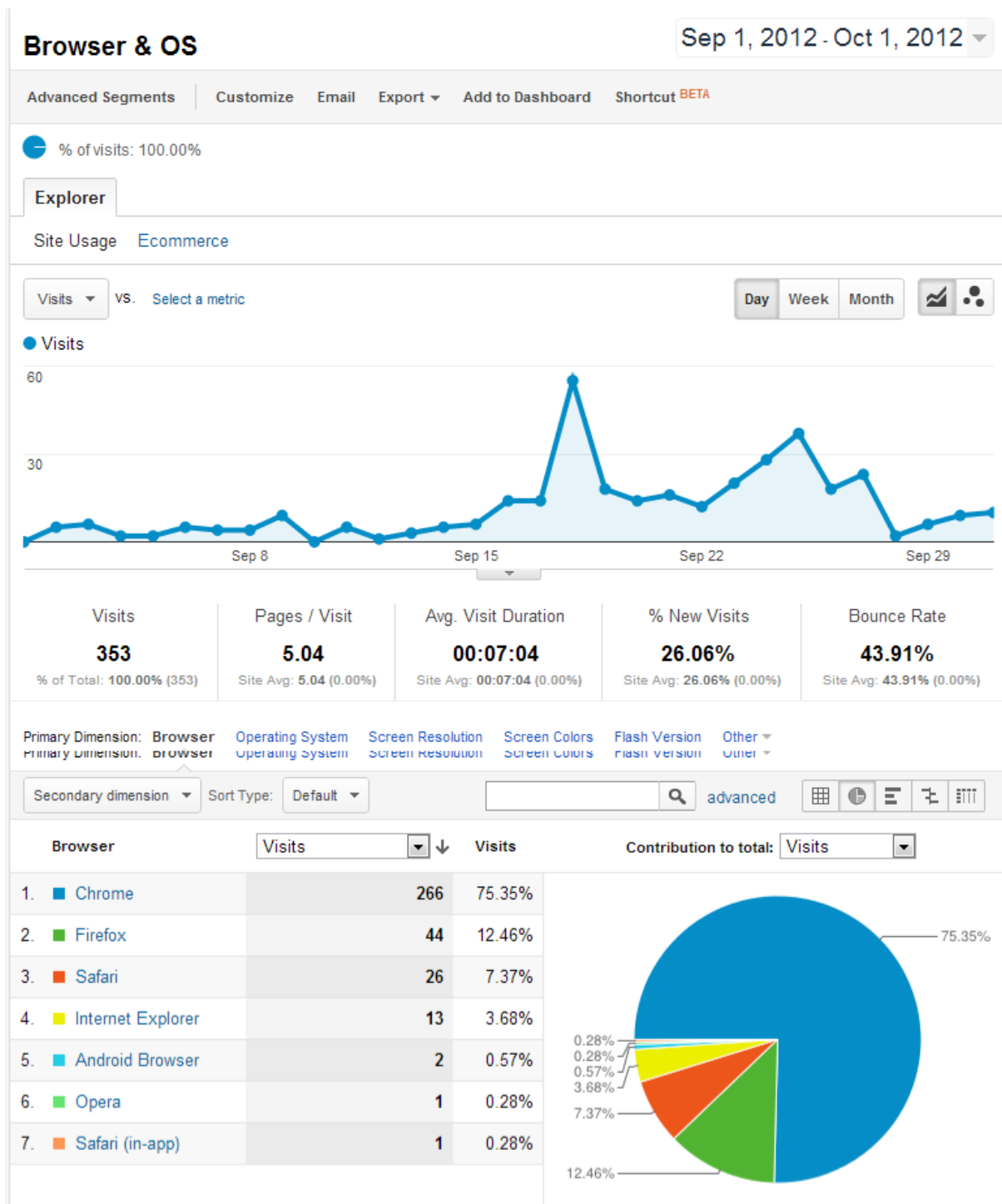


Figure 16

Figure 17 shows that the most used Browser to access cactiness.com was Chrome. However all top four browsers should be taken into consideration. These results are not of much significance at the moment. They are meant to

guide the web master when dealing with cross-browser compatibility. At the moment there are no significant issues in that area.

These following results are from time this report's last update. They represent the place at which the cactiness.com website appears in the result of various search engines.

| Search Engine | Query and resulting place |
|---------------|---|
| Google | Cacti fansite – 3 Cactus fansite – 5 |
| Bing | Cacti fansite - 1 Cactus fansite – 2 |
| Yahoo | Cacti fansite - 1 Cactus fansite – 3 |

From those results it is fair to conclude that the On-Site SEO implementation was successful. After a month of the site being online it managed to get to the first page of search results from three major search engines. Another reason is the lack of competition in web. There are no other cacti dedicated fan-sites that would show up in the search results. It could be considered that cactiness.com is a truly unique website.

The positive results from the On-Site SEO could be observed in the following graph:

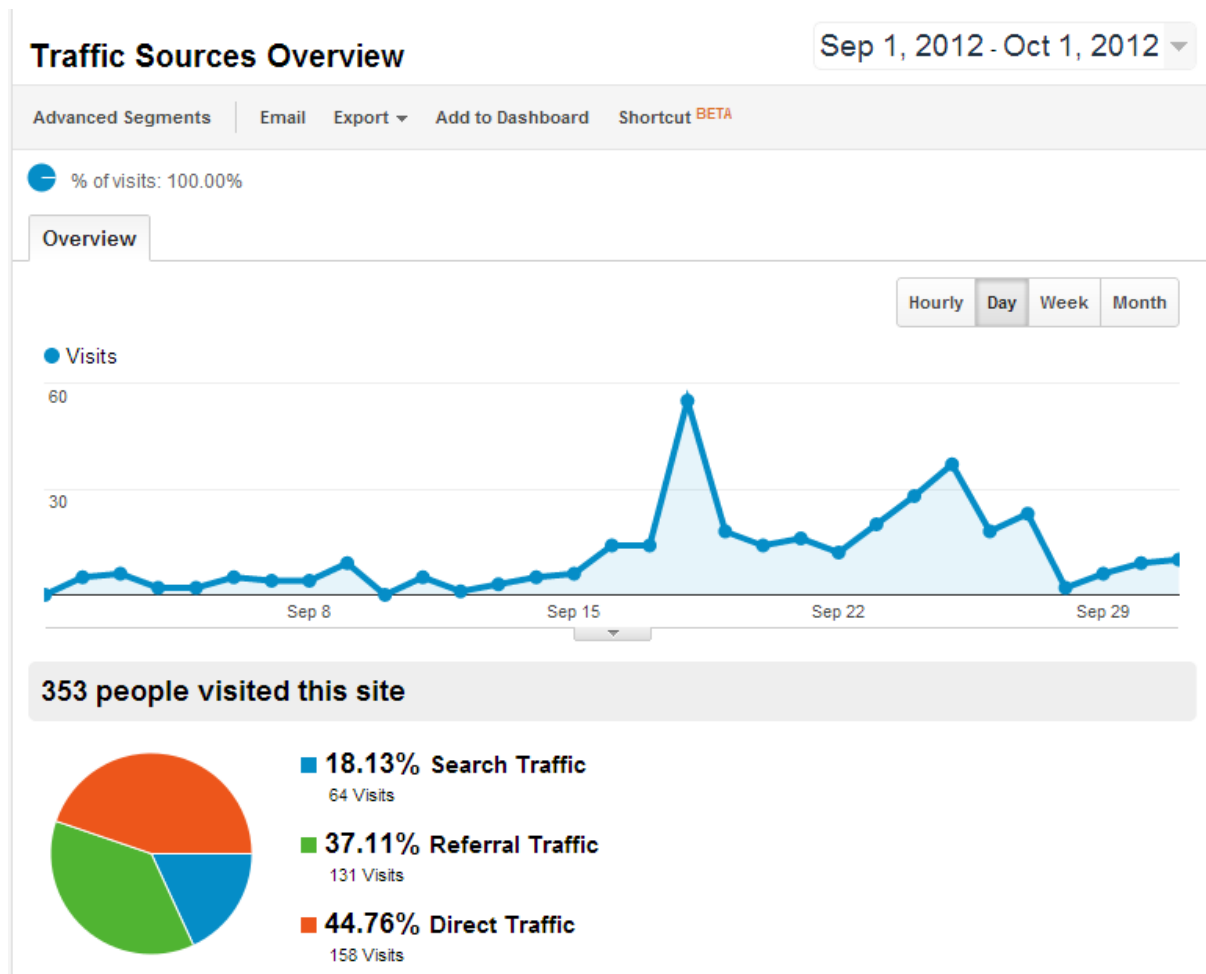


Figure 17

As expected the referral and direct traffic are the dominant. This is normal because of the Off-Site SEO campaign which was aimed to spread links over the web in order to attract an initial user base. This type of SEO proves to be very effective for a short amount of time. It provided the website with lots of visits even a few days after the official launch. The search engine centric In-Site SEO provides a continuous traffic over a longer period of time. That is why as a next step will be to improve On-Site SEO.

6. Future Development

Business

A good business idea for future development is to start advertising on the site. Targeted advertisement might prove beneficial for the project at least for its self-sufficiency. For example ads offer to sell cacti and other succulents or an invitation to visit the local botanic garden. However this step could only be taken if the website manages to keep a constant traffic otherwise the advertising might become the cause of losing users.

Commodity

The initial idea for the website was extremely grandiose with lots of content. However for the purpose of this project a smaller portion of the intended content has been introduced. Here are some ideas for the future.

There could be an interactive world map showing the origin of the different kinds of cacti.

There could be a listing of the cactus gardens of the world and details about them.

There could be a category for movies where cacti are a part of the story e.g. Disney's films.

There could be a section about famous cacti – from movies, internet and history.

To increase even further the reach of the website, a Facebook page or twitter account could be created to keep the user base of the website up to date with regular updates.

Firmness

Even though the website has been built with the idea of fluid layout, the idea was not fully completed. With the more and more popular mobile browsing this feature is sure to be further developed.

Delight

A lot of Delight has already been put into the website and it is hard to think of something additional. Perhaps the one place that could still develop is the typography of the website. The textual content might need a bit more dynamics.

7. Conclusion

In conclusion, the project has successfully become a presentable piece of work worthy for the portfolio of a new Web Designer. I have managed to apply most of the knowledge I acquired during the course of my MA, into creating this project. The website is also fully operational for its secondary purpose – a cactus fan-site. The website has proven to be an interesting source of entertainment. Confirming this statement are the Google analysis results.

The Web Thesis Project has been a wonderful experience for me. I have learned so much during the past year and I am still learning every single day.

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Appendix A

```
<?php
    echo '
    <nav>
        <ul>';

        if ($this_page == "home"){
            echo '
            <li class="button1" id="active"><a href="http://cactiness.com/">Home</a></li>;
            }else{
                echo '
                <li class="button1"><a href="http://cactiness.com/">Home</a></li>;
            }
            if ($this_page == "fun"){
                echo '
                <li class="button2" id="active"><a href="/fun/" accesskey="2">Fun</a></li>;
                }else{
                    echo '
                    <li class="button2"><a href="/fun/" accesskey="2">Fun</a></li>;
                }
                if ($this_page == "facts"){
                    echo '
                    <li class="button3" id="active"><a href="/facts/" accesskey="3">Facts</a></li>;
                    }else{
                        echo '
                        <li class="button3"><a href="/facts/" accesskey="3">Facts</a></li>;
                    }
                    if ($this_page == "tips"){
                        echo '
                    
```

```
<li class="button4" id="active"><a href="/tips/" accesskey="4">Tips</a></li>;

}else{

    echo '

<li class="button4"><a href="/tips/" accesskey="4">Tips</a></li>;

}

if ($this_page == "uses"){

    echo '

<li class="button5" id="active"><a href="/uses/" accesskey="5">Uses</a></li>;

}else{

    echo '

<li class="button5"><a href="/uses/" accesskey="5">Uses</a></li>;

}

if ($this_page == "about"){

    echo '

<li class="button6" id="active"><a href="/about/" accesskey="6">About</a></li>;

}else{

    echo '

<li class="button6"><a href="/about/" accesskey="6">About</a></li>;

}

echo '

</ul>

</nav>;

?>
```