

CSS, Deployment and Analytics

CSS

CSS (Advanced)

- CSS
 - CSS is a language that describes the style of an HTML document.
 - CSS describes how HTML elements should be displayed.
- CSS Transitions
 - CSS transitions allows you to change property values smoothly (from one value to another), over a given duration.
- CSS Animations
 - CSS animations allows animation of most HTML elements without using JavaScript or Flash!
- CSS Pagination
 - If you have a website with lots of pages, you may wish to add some sort of pagination to each page:

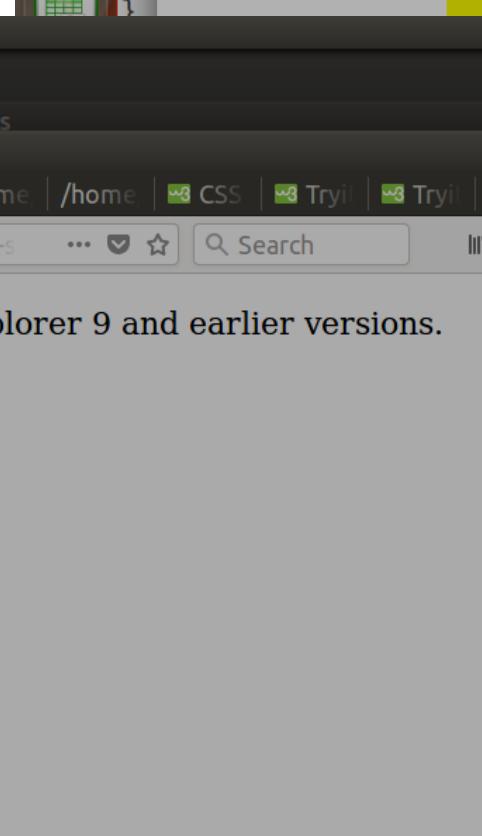
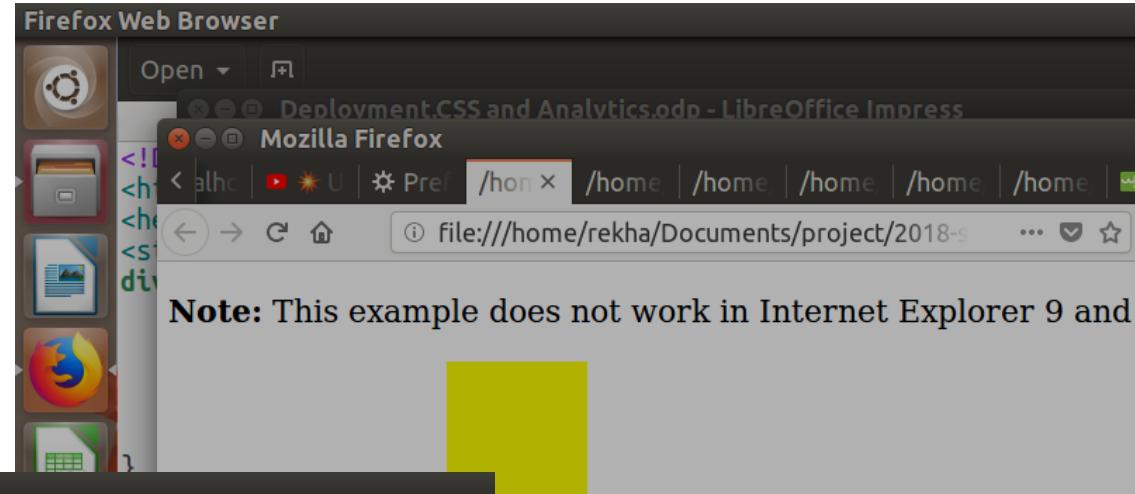
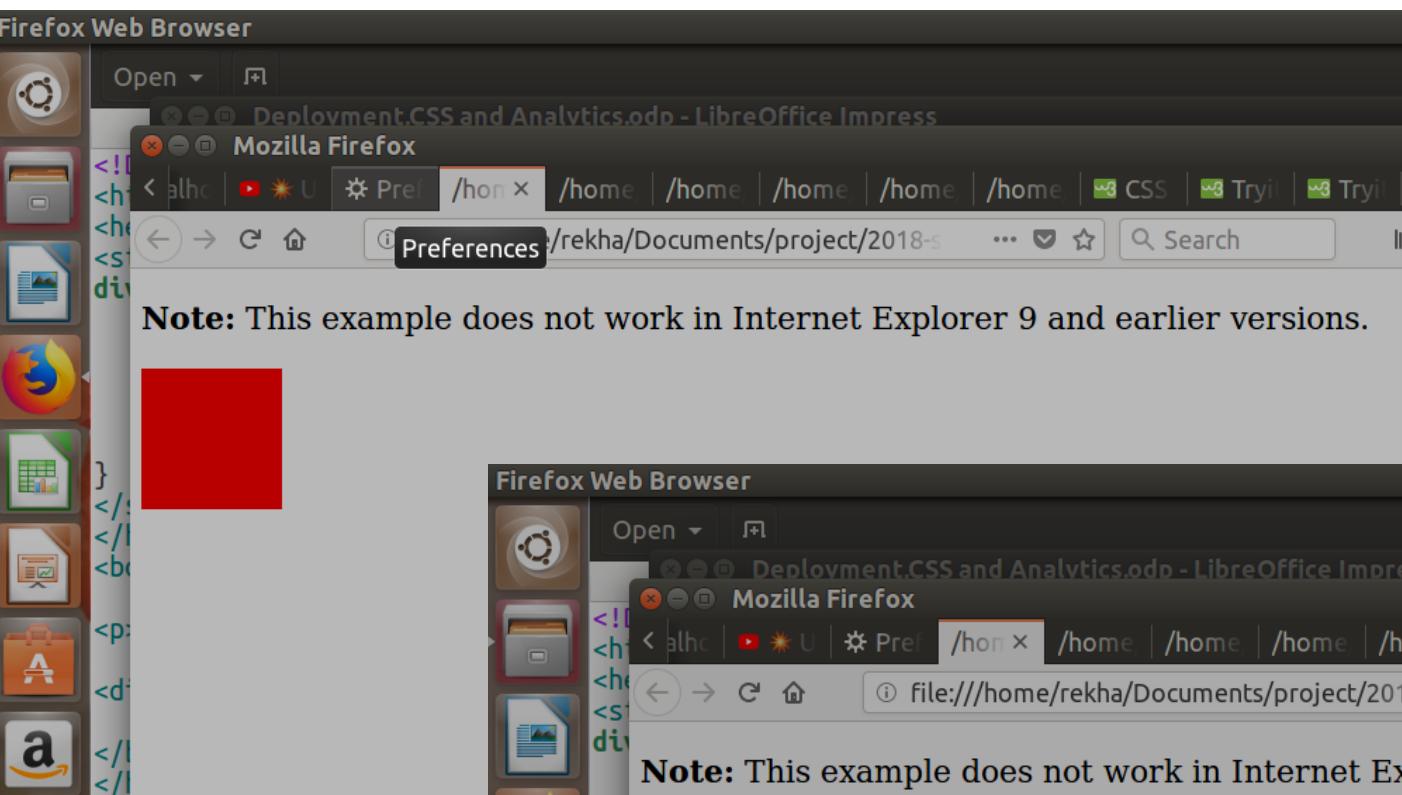
CSS (Advanced)

- CSS User Interface
 - **Re-size** (horizontal, Vertical and Both)
 - Specifies whether or not an element is resizable by the user
 - **Outline Offset**
 - Adds space between an outline and the edge or border of an element

CSS (Animation)

```
<style>
div {
    width: 100px;
    height: 100px;
    background-color: red;
    position: relative;
    animation-name: example;
    animation-duration: 10s;
}
/* Standard syntax */
@keyframes example {
    0% {background-color:purple; left:0px; top:0px;}
    25% {background-color:yellow; left:200px; top:0px;}
    50% {background-color:brown; left:200px; top:200px;}
    75% {background-color:green; left:0px; top:200px;}
    100% {background-color:purple; left:0px; top:0px;}
}
</style>
```

CSS (Animation)



Note: This example does not work in Internet Explorer 9 and earlier versions.

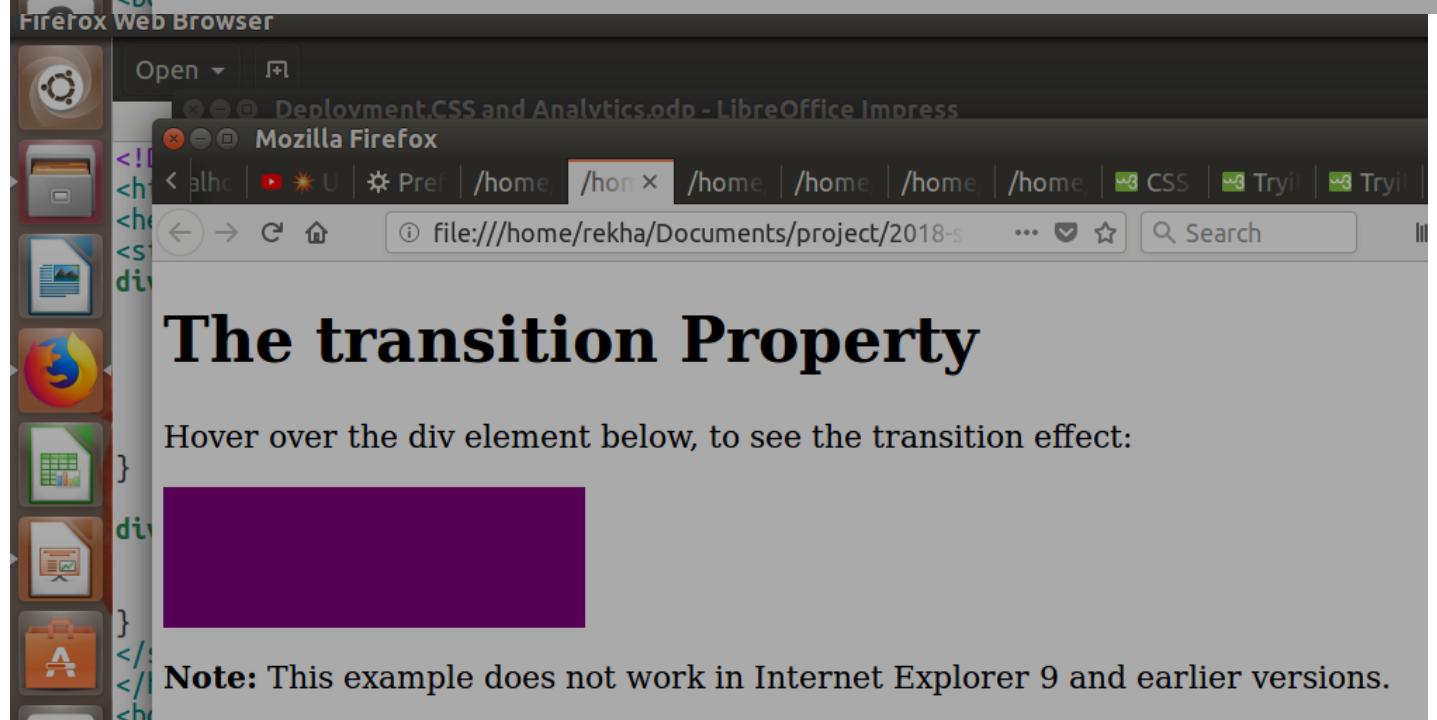
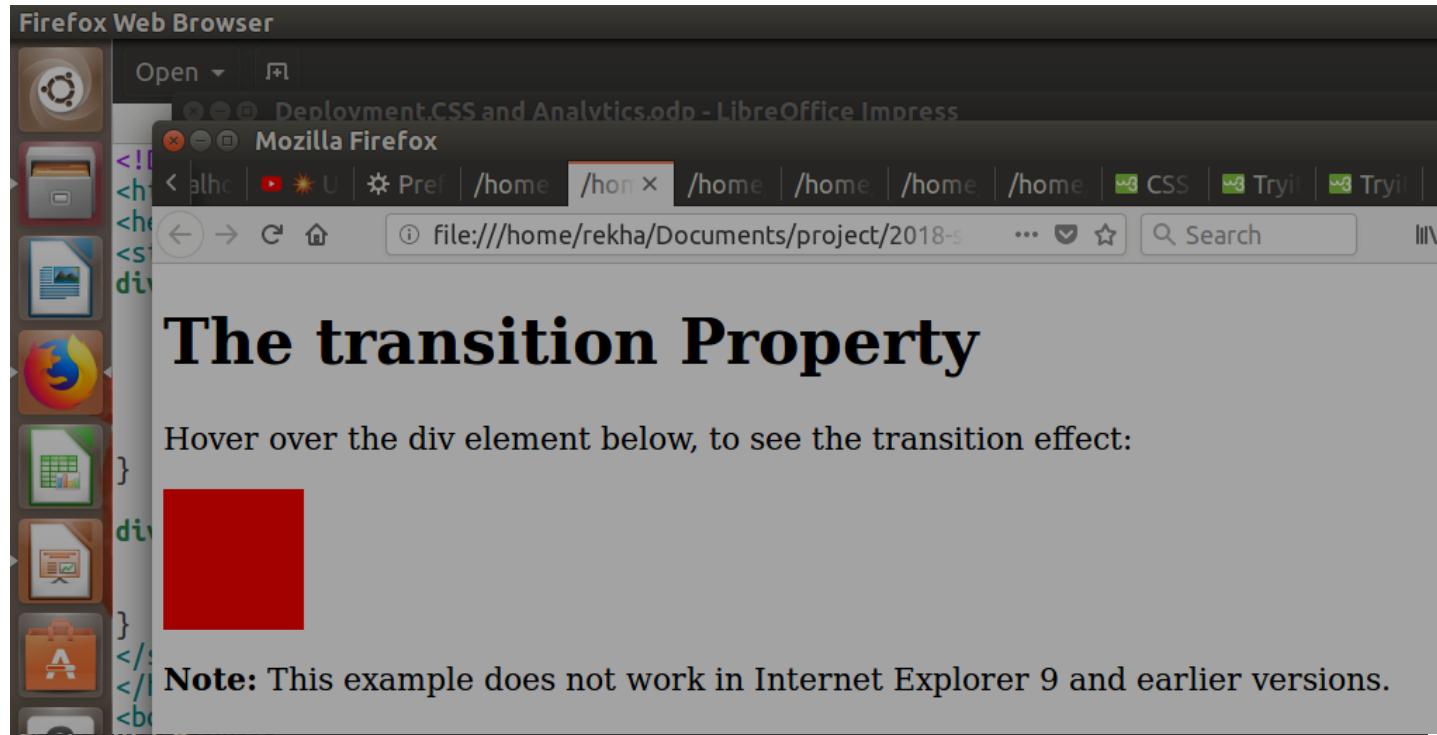
Note: This example does not work in Internet Explorer 9 and earlier versions.

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CSS (Transition)

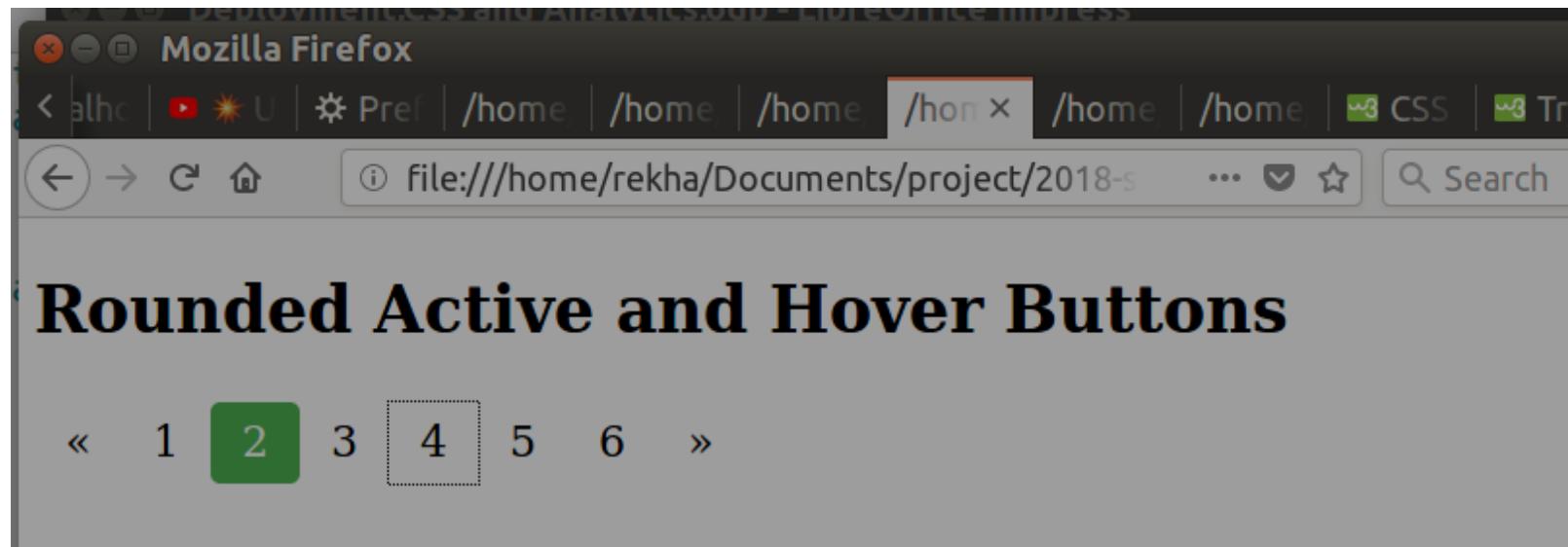
```
<style>
div {
    width: 100px;
    height: 100px;
    background: red;
transition: width 10s;
}

div:hover {
    background: purple;
    width: 300px;
}
</style>
```



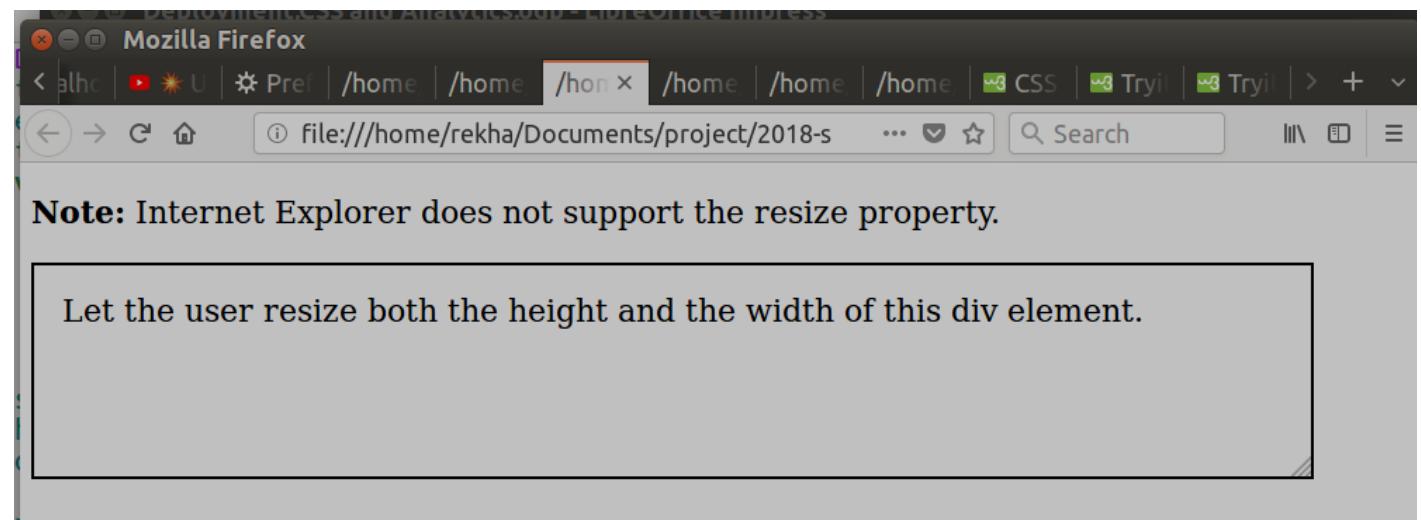
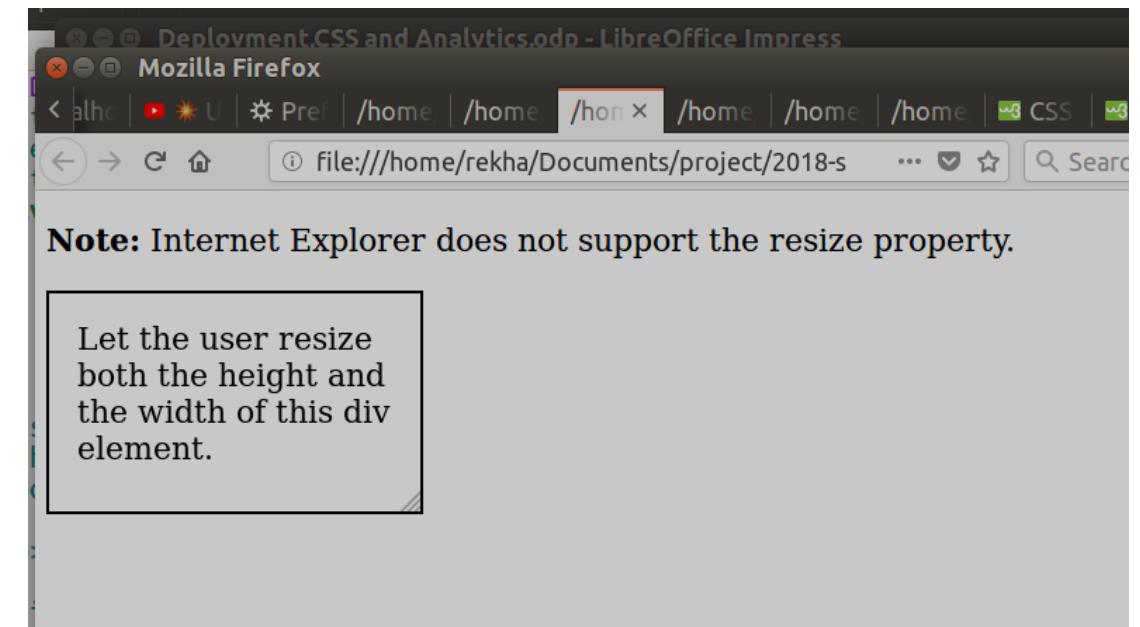
```
<style>
.pagination {
    display: inline-block;
}
.pagination a {
    color: black;
    float: left;
    padding: 8px 16px;
    text-decoration: none;
}
.pagination a.active {
    background-color: #4CAF50;
    color: white;
    border-radius: 5px;
}
.pagination a:hover:not(.active) {
    background-color: #ddd;
    border-radius: 5px;
}
</style>
```

CSS (Pagination)



CSS (resizing)

```
<style>
div {
    border: 2px solid;
    padding: 20px;
    width: 300px;
    resize: both;
    overflow: auto;
}
</style>
```



CSS (media types)

- CSS2 Introduced Media Types

It made it possible to define different style rules for different media types.

- Examples: You could have one set of style rules for computer screens, one for printers, one for handheld devices, one for television-type devices, and so on.

- CSS3 Introduced Media Queries

- Media queries in CSS3 extended the CSS2 media types idea: Instead of looking for a type of device, they look at the capability of the device.

- Install '**Mobile/Responsive Web Design Tester**' on chrome as extension

Media Queries

- Media queries can be used to check many things, such as:
 - width and height of the viewport
 - width and height of the device
 - orientation (is the tablet/phone in landscape or portrait mode?)
 - resolution
- Using media queries are a popular technique for delivering a tailored style sheet to desktops, laptops, tablets, and mobile phones (such as iPhone and Android phones).

Media Queries

```
<style>
body {
    background-color: pink;
}

@media screen and (min-width: 600px) {
    body {
        background-color: lightgreen;
    }
}

@media screen and (max-width: 300px) {
    body {
        background-color: lightblue
    }
}
</style>
```

Media Queries

Firefox Web Browser

Deployment.CSS and Analytics.odp - LibreOffice Impress

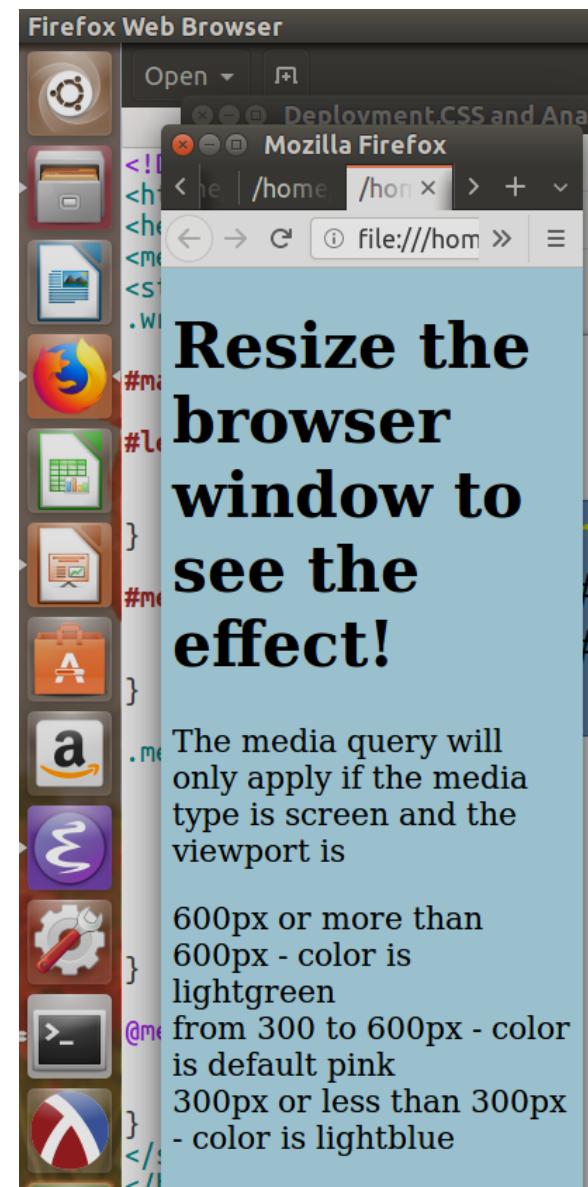
Mozilla Firefox

file:///home/rekha/Documents/project/2018-spring-iiith/

Resize the browser window to see the effect!

The media query will only apply if the media type is screen and the viewport is

600px or more than 600px - color is lightgreen
from 300 to 600px - color is default pink
300px or less than 300px - color is lightblue



Firefox Web Browser

Deployment.CSS and Analytics.odp - LibreOffice Impress

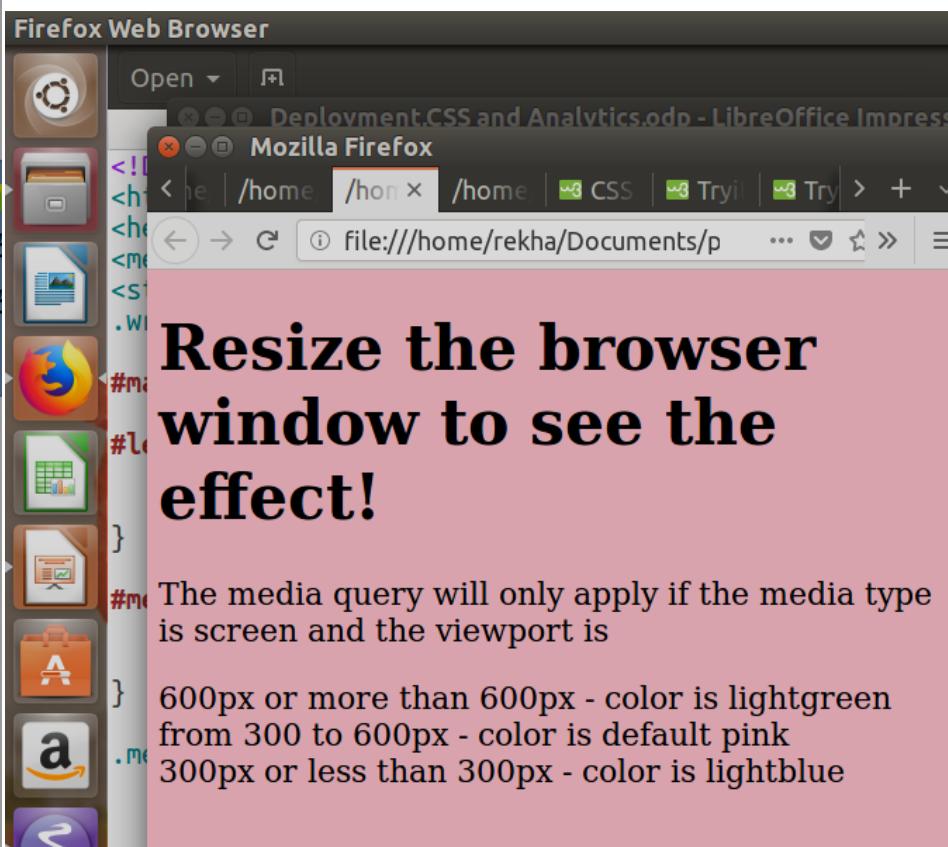
Mozilla Firefox

file:///home/rekha/Documents/p

Resize the browser window to see the effect!

The media query will only apply if the media type is screen and the viewport is

600px or more than 600px - color is lightgreen
from 300 to 600px - color is default pink
300px or less than 300px - color is lightblue



Firefox Web Browser

Deployment.CSS and Analytics.odp - LibreOffice Impress

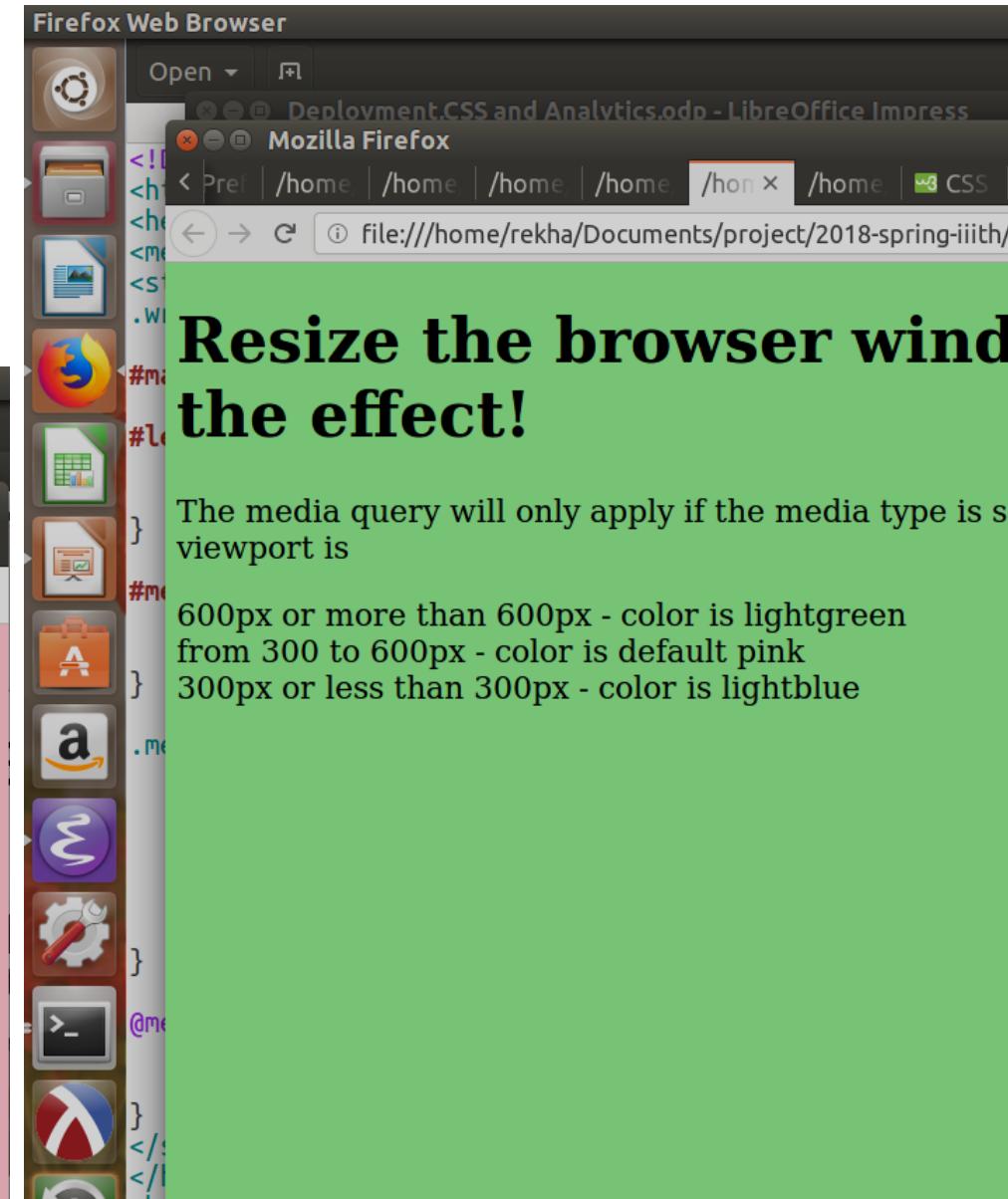
Mozilla Firefox

file:///home/rekha/Documents/project/2018-spring-iiith/

Resize the browser window to see the effect!

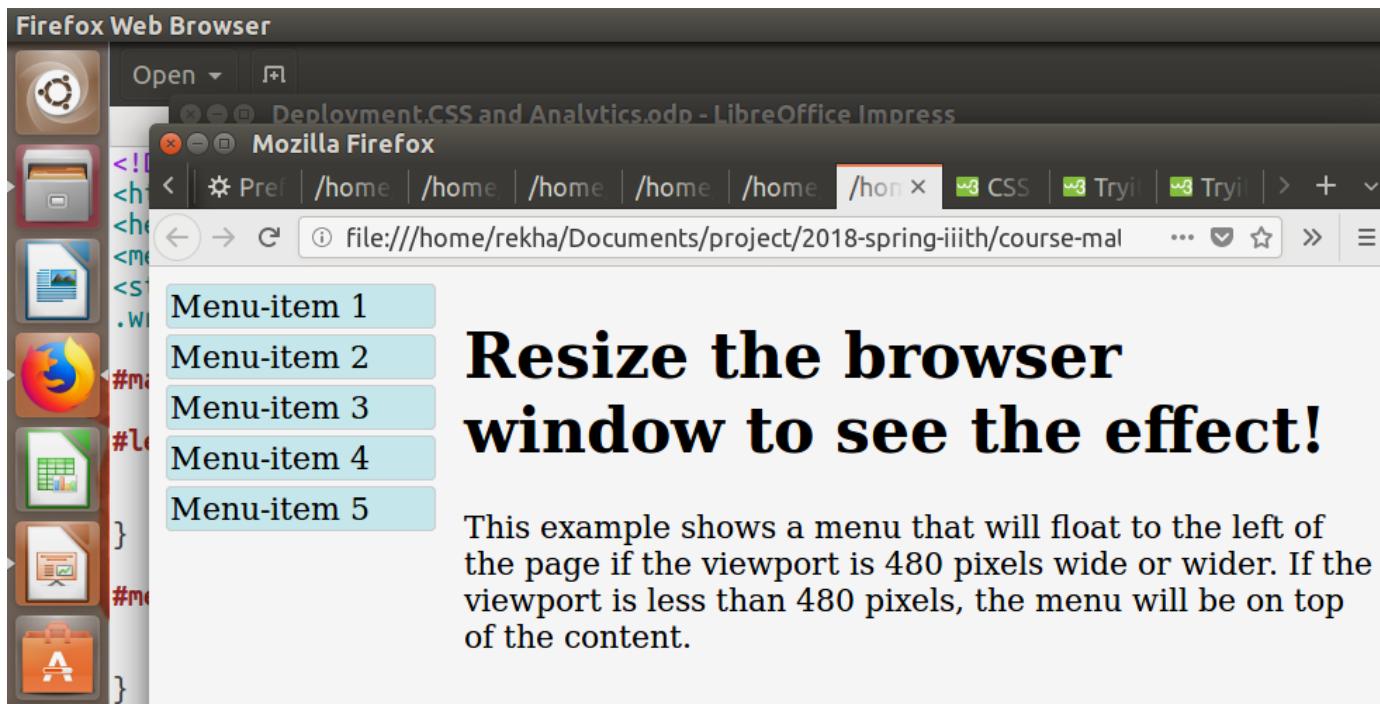
The media query will only apply if the media type is screen and the viewport is

600px or more than 600px - color is lightgreen
from 300 to 600px - color is default pink
300px or less than 300px - color is lightblue



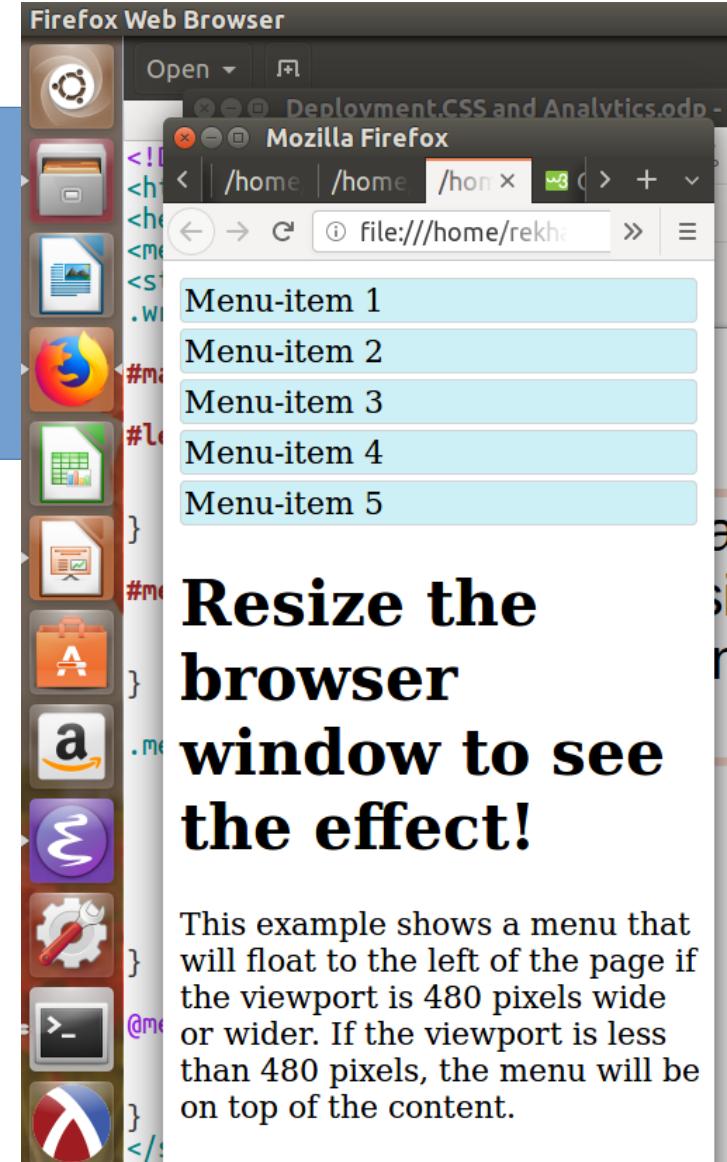
Media Queries

```
@media screen and (min-width: 480px) {  
    #leftsidebar {width: 200px; float: left;}  
    #main {margin-left: 216px;}  
}
```



Resize the browser window to see the effect!

This example shows a menu that will float to the left of the page if the viewport is 480 pixels wide or wider. If the viewport is less than 480 pixels, the menu will be on top of the content.



Resize the browser window to see the effect!

This example shows a menu that will float to the left of the page if the viewport is 480 pixels wide or wider. If the viewport is less than 480 pixels, the menu will be on top of the content.



Leaner Style Sheets

- CSS preprocessing: Less is a **dynamic style sheet language** that can be **compiled** into Cascading Style Sheets (CSS)
- It can run on the **client side or server side**.
- Including LESS in something that you're building is about as easy as it gets:
 - Go get yourself a copy of less.js;
 - Create a file to put your styles in, such as style.less;
 - add the following code to your HTML's <head>:

```
<link rel="stylesheet/less" type="text/css" href="styles.less">
<script src="less.js" type="text/javascript"></script>
```



- LESS

Less provides the following mechanisms for following best practices like DRY:

- Mixins -. Classes for classes.
- Parametric mixins -. Classes to which you can pass parameters, like functions.
- Nested Rules -. Classes within classes, which cut down on repetitive code.
- Math Operations and Color functions to edit your colors.
- Namespaces -. Groups of styles that can be called by references.
- Scope -. Make local changes to styles.
- JavaScript evaluation -. JavaScript expressions evaluated in CSS.

<http://lesscss.org/>



```
@blue: #00b;  
  
@light_blue: @blue + #333;  
  
@super_light_blue: @light_blue + #333;  
  
@dark_blue: @blue - #333;  
  
@super_dark_blue: @dark_blue - #333;
```

```
div {  
    width: 100px;  
    height: 100px;  
    background-color: blue;  
    position: relative;  
    animation-name: example;  
    animation-duration: 10s;  
}  
  
/* Standard syntax */  
  
@keyframes example {  
    0% {background-color:@super_light_blue; left:0px; top:0px;}  
    25% {background-color:@light_blue; left:200px; top:0px;}  
    50% {background-color:@blue; left:200px; top:200px;}  
    75% {background-color:@dark_blue; left:0px; top:200px;}  
    100% {background-color:@super_dark_blue; left:0px; top:0px;}  
}
```

Deployment

During Development

- Database
 - Always have schema.sql to re-create the DB on HOST machine.
 - Always have connection string to connect with DB protected by password
- Links
 - The hyperlinks in the web pages should be relative instead of absolute
 - [Search](http://127.0.0.1:5000/search)
 - [Search](/search)
- Assets/Resources
 - Assets are like
 - Images
 - Videos
 - Fonts
 - Keep them in respective folders.

During Development

- CSS
 - Re-use CSS styles as much as possible
 - Minify the CSS
 - Avoid inline CSS styles

<p style="color:DodgerBlue;">Lorem ipsum...</p>
<p class="DodgerBlue">Lorem ipsum...</p>
- Javascript – Minification
 - In order to prevent accidental code leak, you have to minify the Javascript

Make your website smaller and faster to load by minifying the JS and CSS code.

During Development

- Root should be BASE_URL
- app.route('/login') should be app.route(BASE_URL+login)
- Can use decorators for clean implementation

During Development

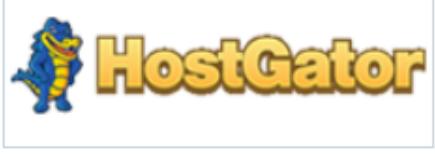
- During development, your flask server acts as both web server and application server.
- For deployment, a real web server needs to be installed and configured on host machine.
- After deployment, your flask server becomes application server and all the urls served by this application server should look like /app_name/.... Where app_name is name of application server registered with web server.
- A web server can communicate with multiple application servers based on WSGI protocol.

Post Development

- Register your Domain
- Purchase the Hosting Server
- Upload the files including python, html, assets and others
- Create Database
 - Your Site is Live ☺

Domain Name Providers

Top Domain Registrars For February:

Rank	Company	Standard Price for .COM domain	Renewal Price	Special Offers	Location	Index	Reviews	Register Domain
1	 MOCHAHOST	\$10.45/yr	\$10.45/yr	Get 1 LifeTime Free Domain	USA, Illinois		READ REVIEW	REGISTER TRANSFER
2	 GoDaddy®	\$11.99/yr	\$14.99/yr		USA, AZ			REGISTER TRANSFER
3	 HostGator	\$12.95/yr	\$15.00/yr		USA, TX		READ REVIEW	REGISTER TRANSFER
4.	 bluehost	\$11.99/yr	\$15.99/yr		USA, MA		READ REVIEW	REGISTER TRANSFER

Top Hosting Providers

Top Shared Hosts For March:

Rank	Company	Price	Renewal Price	OS	Languages	PHP 7.x	Databases	Panel	Disk Space/Traffic	Index	Visit
1	 MochaHost	\$1.95	\$1.95		PHP JSP/Java PYTHON PERL ASP.NET RUBY	✓	MySQL MS SQL PostgreSQL	 SolidCP	Unlimited/ Unlimited		READ REVIEW VISIT HOST
2	 HostPapa	\$3.95	\$9.99		PHP PERL	✗	MySQL		Unlimited/ Unlimited		READ REVIEW VISIT HOST
3	 GreenGeeks®	\$3.95	\$9.95		PHP PYTHON PERL	✗	MySQL		Unlimited/ Unlimited		READ REVIEW VISIT HOST
4.	 FatCow™	\$3.15	\$8.95		PHP PYTHON	✗	MySQL	Custom	Unlimited/ Unlimited		READ REVIEW VISIT HOST
5.	 HostGator	\$3.95	\$6.95		PHP PYTHON PERL RUBY	✓	MySQL		Unlimited/ Unlimited		READ REVIEW VISIT HOST
6.	 bluehost	\$3.95	\$7.99		PHP PYTHON PERL RUBY	✗	MySQL PostgreSQL		Unlimited/ Unlimited		READ REVIEW VISIT HOST

Links

- <http://flask.pocoo.org/docs/0.12/deploying/>

Analytics

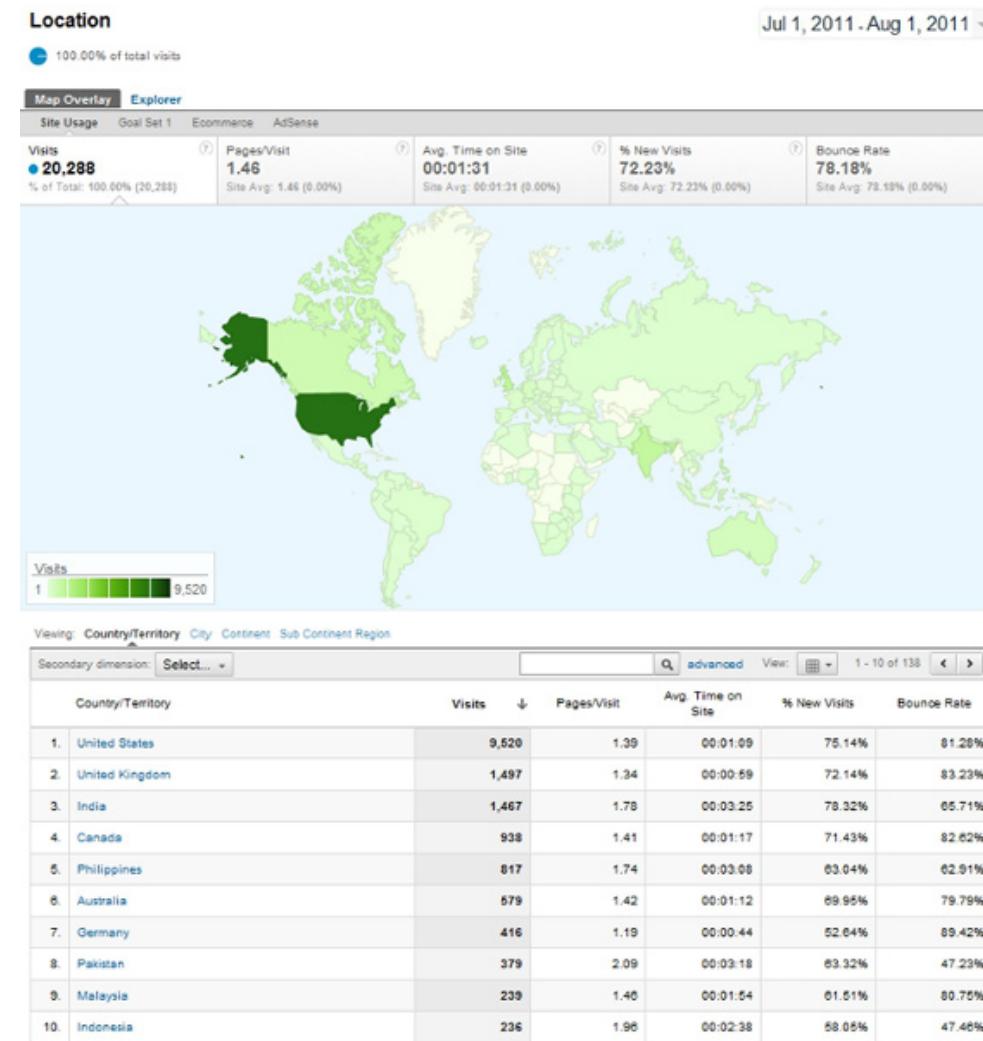
Google Analytics

- **Search engine optimization (SEO)** is the process of affecting the online visibility of a website or a web page in a web search engine's unpaid results—often referred to as "natural", "organic", or "earned" results.
- **Google Analytics** is a free **Web analytics service** that provides statistics and basic analytical tools for **search engine optimization (SEO)** and **marketing purposes**.
- The service is available to anyone with a Google account.
- Google bought Urchin Software Corporation in April 2005 and used that company's Urchin on Demand product as the basis for its current service.

Awesome Things You Can Do With Google Analytics

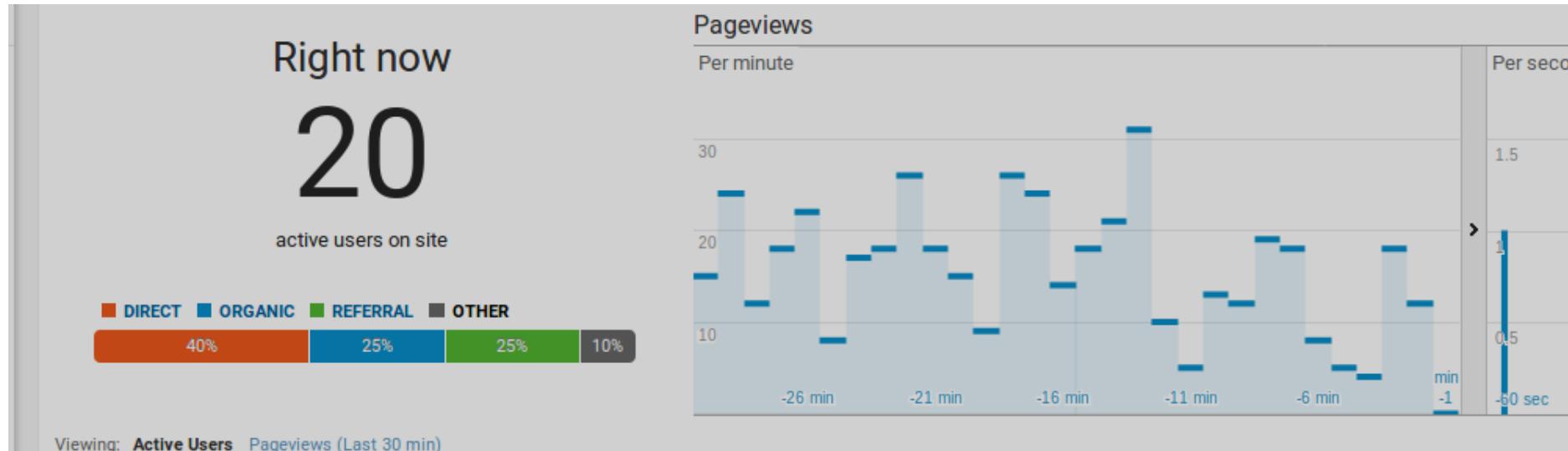
Determine where your best visitors are located.

Here, you can see your worldwide stats, including the **average time on site** and **bounce rate of visitors from particular countries**. You can also drill down to particular countries and see these stats as well as your goal conversion rates in particular regions



Awesome Things You Can Do With Google Analytics

Determine Traffic Sources

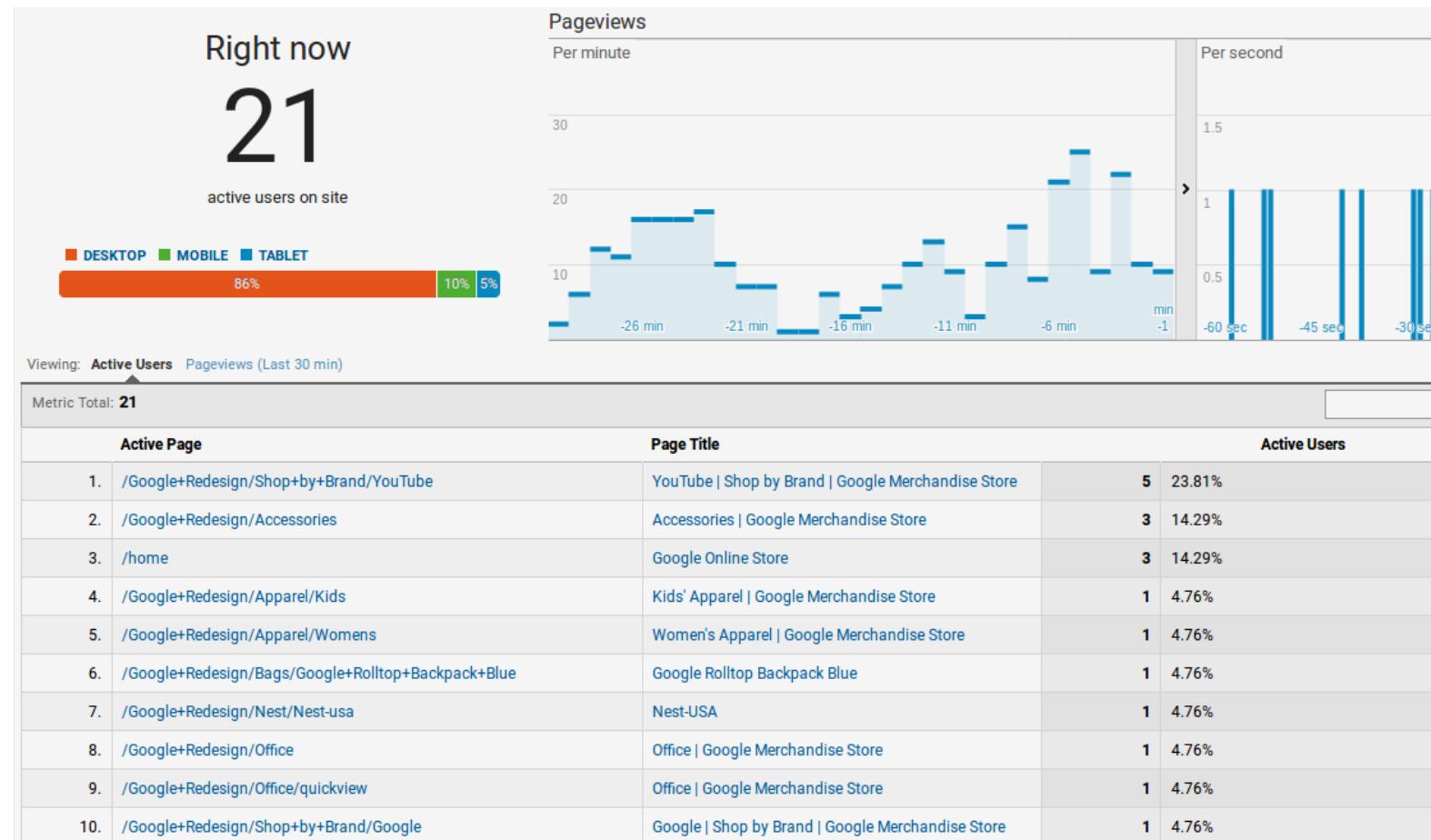


Metric Total: 20					
Medium	Source	Active	Pageviews	Time Spent	Conversion Rate
1. (none)	(direct)	8	40.00%	0:00:00	
2. Organic	google	5	25.00%	0:00:00	
3. Referral	mall.googleplex.com	3	15.00%	0:00:00	
4. Referral	analytics.google.com	1	5.00%	0:00:00	
5. Referral	moma.corp.google.com	1	5.00%	0:00:00	
6. Social	Google Groups	1	5.00%	0:00:00	
7. affiliate	Partners	1	5.00%	0:00:00	

Awesome Things You Can Do With Google Analytics

Learn what people are searching for on your site.

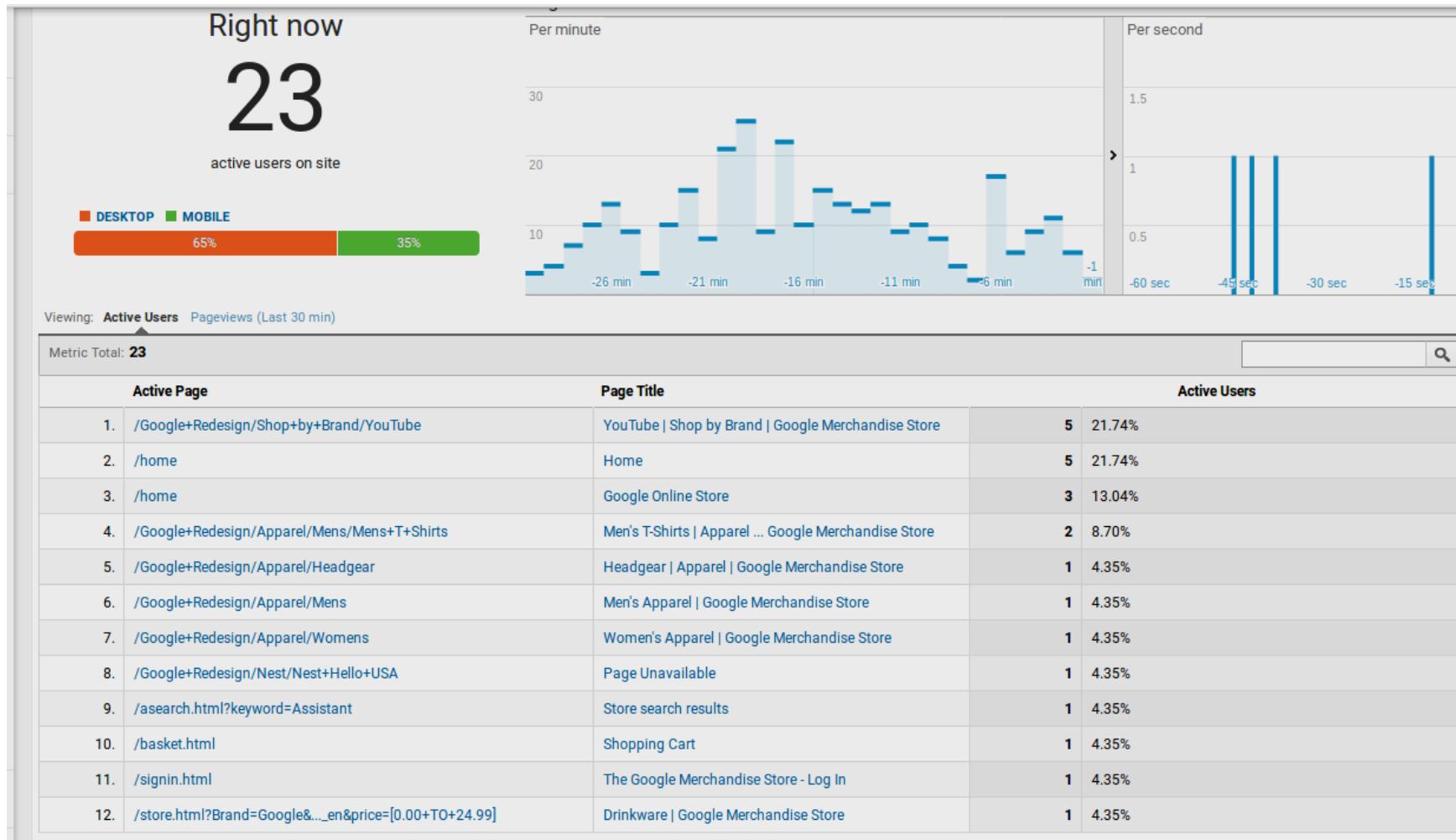
- Most people know how to find the keywords that bring visitors to their sites from search engines.
- But how would you like to go beyond that to find out what visitors are searching once they are on your site?



Awesome Things You Can Do With Google Analytics

Visualize what people click on the most.

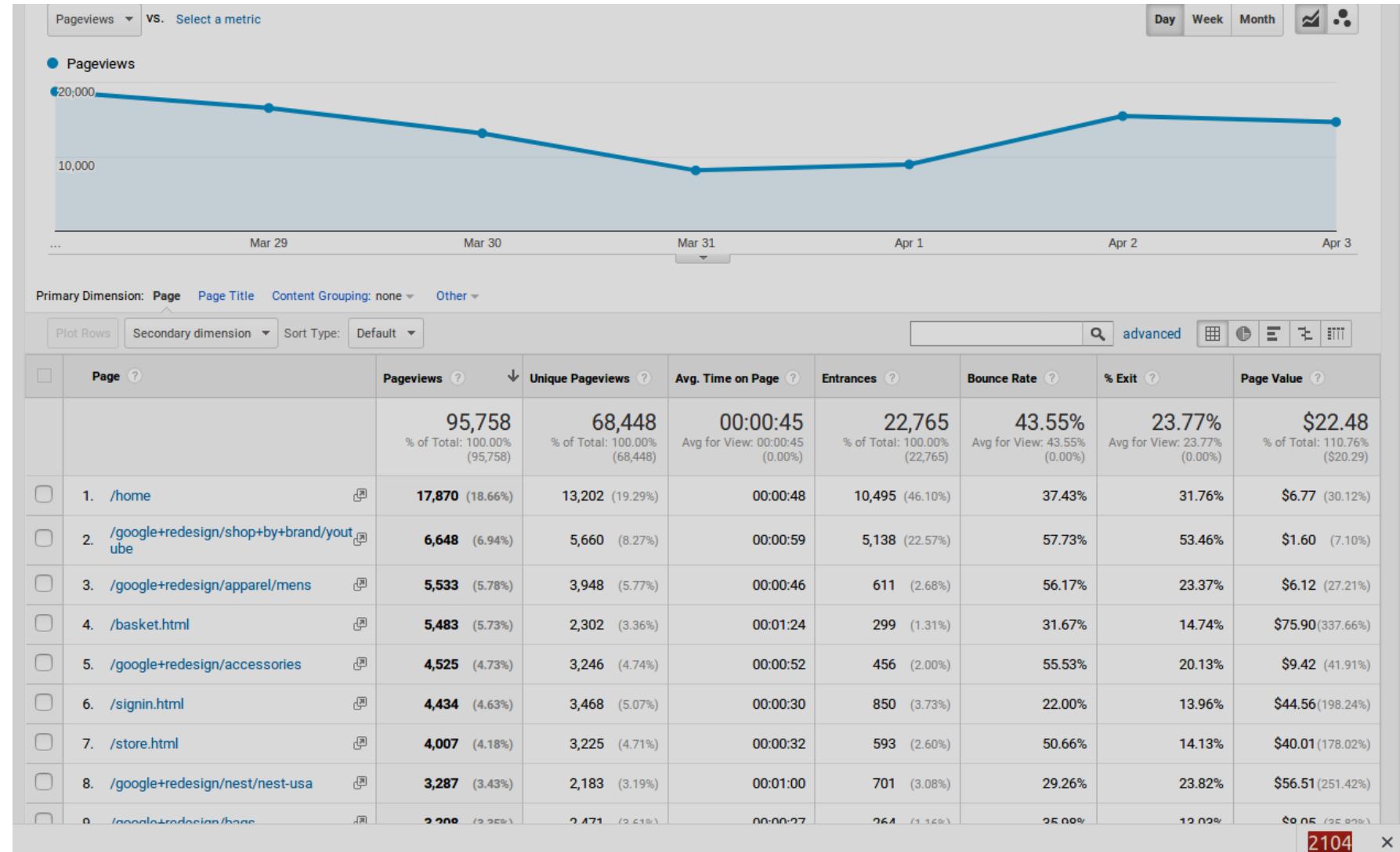
- Curious where people are making the most clicks on your site?
- **In-Page Analytics** under the **Content** menu will pull up your website in the Analytics browser with information on the percentage of clicks that have happened on each internal link on your site.



Awesome Things You Can Do With Google Analytics

Uncover your top content.

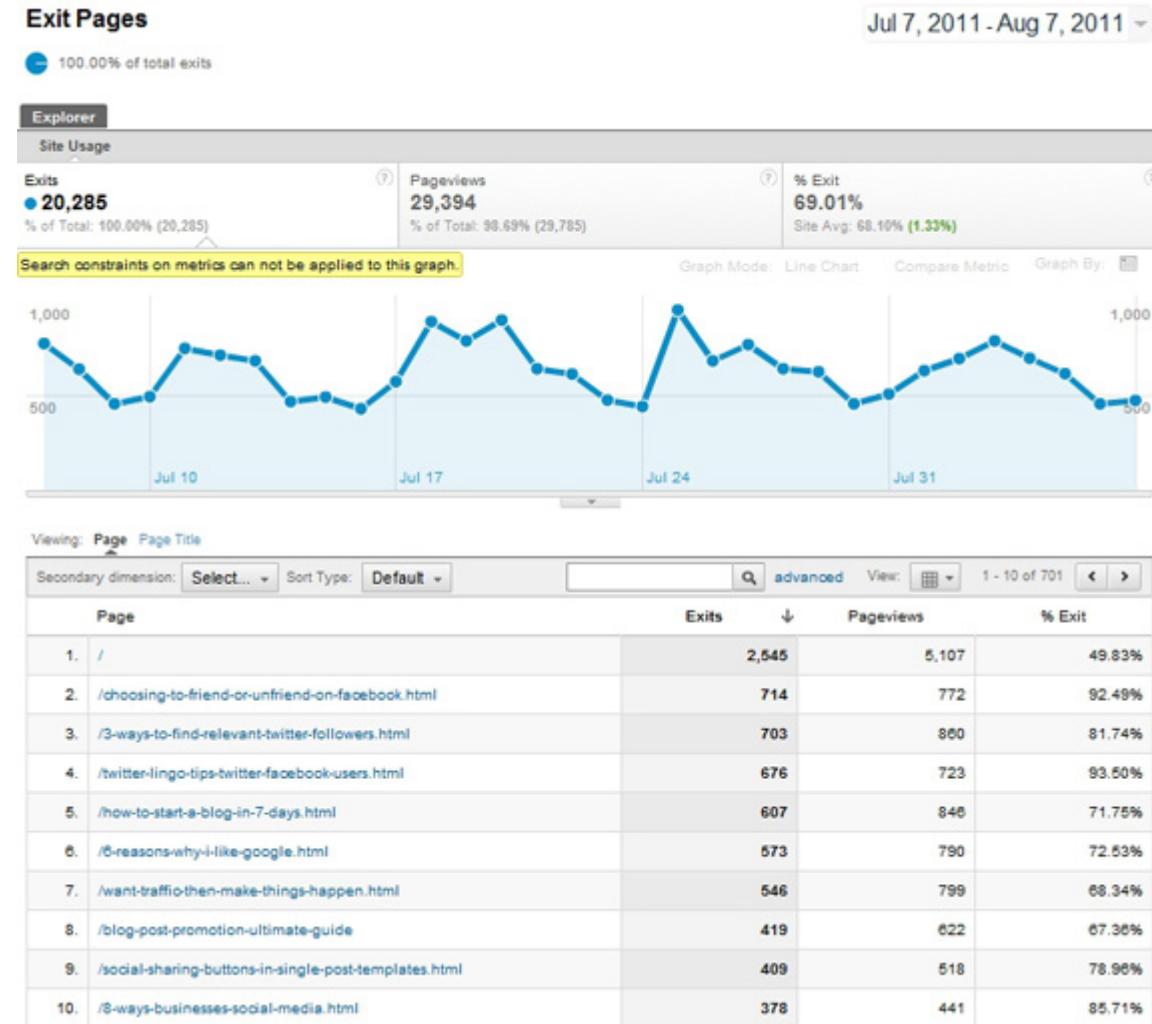
- This section can help you identify which pieces of content keep visitors on your site the longest and lead to them wanting to continue onto more pages on your site.
- *This can help you produce more content that people will like in the future.*



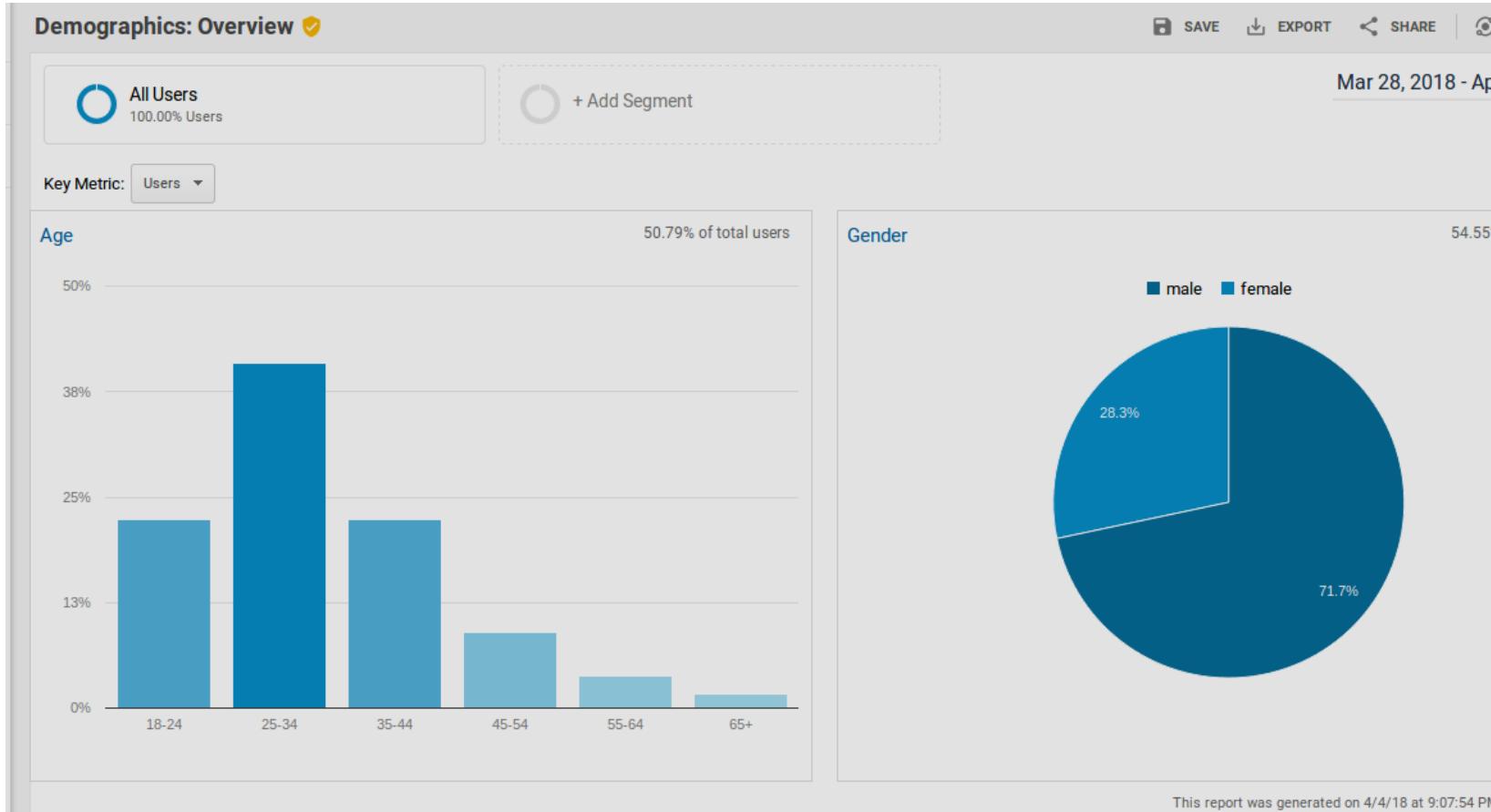
Awesome Things You Can Do With Google Analytics

Identify your worst performing pages.

- it may signify that people are not finding what they are looking for on that page and then leaving.
- This may mean that you need to evaluate your site's content to ensure that visitors are finding what they want and
- getting a call to action so they get where you want them to be before they leave, such as subscribing to a mailing list or purchasing a product.



Awesome Things You Can Do With Google Analytics



Links

- [Google Analytics Solutions](#)
- [alexa](#)

