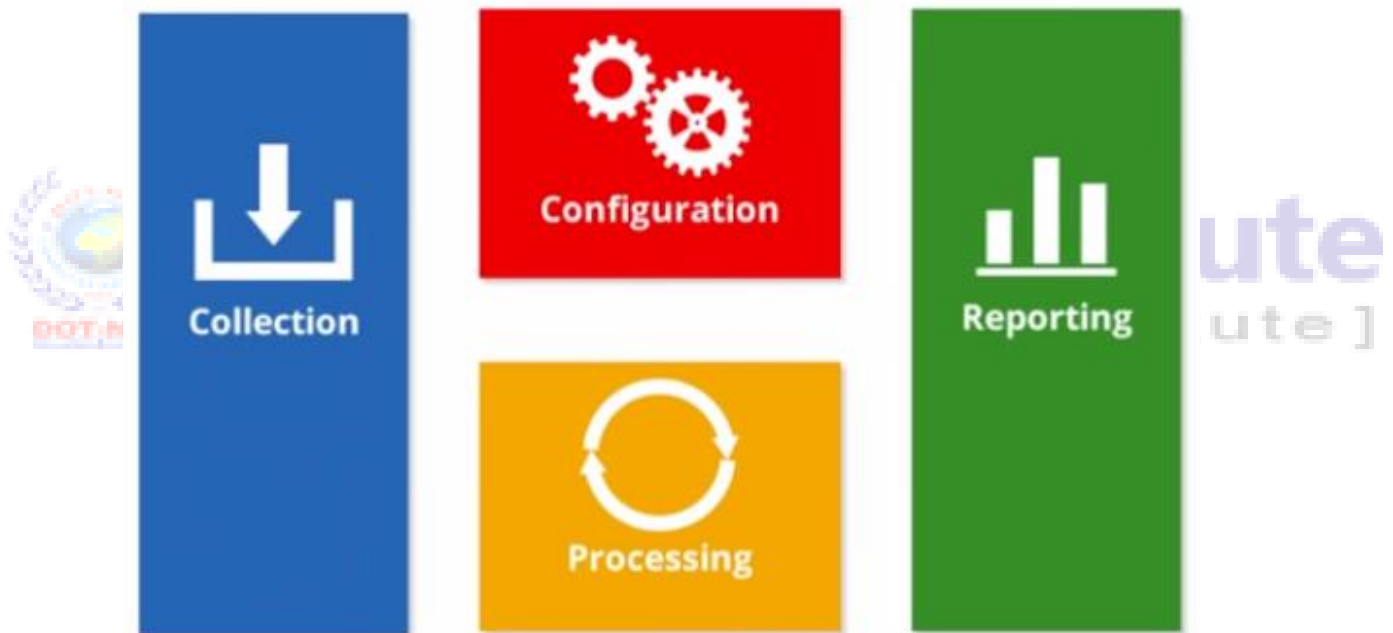## Lesson no. 2 – How Google Analytics Works

HOW GOOGLE ANALYTICS WORKS

There are four components that come together and make Google Analytics work:

1. Collection
2. Processing
3. Configuration
4. Reporting

1. Collection:

Data can be collected from different sources, such as a website, a mobile application or pretty much any device that has a connection to the internet.

For a website, in order to collect the information, we need to include a Tracking code (JavaScript). This code should be included on every single page of the website in order for Google Analytics to capture the information properly. The JavaScript that we get from Google is okay, but don't forget that it tracks a limited amount of information. If you are active in a niche field of work, you might want to take a look at adapting that code in order to track the correct data.

For a mobile application, we need to use a specific software development kit (SDK), depending on the operating system. In this case, activities will be tracked instead of pageviews. Because we might not always have an internet connection available, the hits will be stored and sent to afterwards to Google's collection centres.

2. Processing + Configuration:

The processing step is the one that takes the longest to finish. It can take anywhere up to 4 hours (24 hours in Google's T&Cs) to turn all the raw data into reports that you are able to interpret and monitor. This doesn't happen easily, but the only way you can skip the queue is by paying for Google Analytics 360.

In Google Analytics, the configuration part comes in and it applies certain filters to the data that is collected. While some of those filters (new or returning users, linking between pages and time spent on certain pages) are pre-configured, you also have the possibility to apply some filters of your own to this process. Remember that you will not be able to change that information once it is stored in the database.

3. Reporting:

The final step what the users get to see. By using Google Analytics' own interface, you have access to all the processed information and this is the place where you can manage it from. There is also the possibility of using different applications by creating a custom code in the reporting API.

Here is a short list of benefits that you will gain after using Google Analytics:

a) Visitor Segmentation: New vs Returning users, Geographical location and referral source.
b) Page visits: Finding out which pages are the most visited.
c) Locating the website: Finding out how the users got to your website and tracking the keywords they used.
d) Website optimization