

## Background

A client of Panalysis is a publisher who has been running email marketing newsletters for a number of years. These newsletters contain 24 different email lists and a subscriber may join one or more of these lists.

The client sends email to these lists with different frequencies throughout the year (weekly, monthly, daily).

They use Campaign Monitor <https://www.campaignmonitor.com/> to manage the subscribers and distribute the email newsletters.

Our client has requested that Panalysis provide a report that addresses the following:

1. We have customers/personas that interact with us across a range of different services at different times.
2. The audience is not exclusive to one website / email newsletter. By fragmenting our channels, we lose the opportunity to build a collective audience and get to know them better and potentially serve more targeted content in the future.
3. Fragmenting our newsletters is inefficient, and results in an inconsistent experience for our customers.
4. The client needs to know which lists are most frequently subscribed to and whether to decommission some newsletters and how they might potentially combine content.

## Task

Please prepare a short report and presentation.

Use the data in the csv (see link below) to develop your methodology, and prepare a presentation on your results to address the following:

1. How would you address the client's comments and questions above?
2. Provide descriptive statistics for each list.
3. How many subscribers are subscribed to more than one list?
4. Where a subscriber has joined more than one newsletter which combinations of lists are subscribed to. E.g. if a subscriber has joined Artists in Australia and Balkan News and another has joined Artists in Australia, Dog Walkers Weekly these can be represented as pairs A,B and A,D.
5. Which lists have the greatest differences in the people who subscribe to them? E.g. People who subscribe to Balkan News very rarely subscribe to Artists in Australia.
6. Which lists have the highest unsubscription rate.

Please also address the following:

- Describe how would you obtain the information from Campaign Monitor. See <https://help.campaignmonitor.com/support>
- Describe the methodology you would use to tackle the questions above

The data can be downloaded from:

<https://drive.google.com/file/d/0ByKnfbexExf4YmcydjVvaGNyMXc/view?usp=sharing>

You are free to choose whichever tools you prefer to use to answer the questions above.

## About the Data

The data is in a CSV file format.

Field	Description	Example Values
DateAddedToList	<p>The date that the subscriber was added to the list.</p> <p>Note that this may not be when they actually subscribed but rather when the owner of the list loaded this data into the software application.</p>	10/04/2014 15:44
SubscriberID	<p>The unique identifier for this subscriber.</p> <p>Note that a subscriber can be subscribed to one or more lists.</p>	ad0d6c7da2659ceda6c14c73ab3d5565e7427371a3ea4c0a6f9ab733cb47cb31
ListID	<p>The name of the mailing list. Note that these are fictional names.</p>	<p>Artists in Australia</p> <p>Balkan News</p> <p>Columbian Comedy</p> <p>Dog Walkers Weekly</p> <p>...</p>
CurrentStatus	<p>The current status of the user.</p> <p>Note only subscribers marked as Active will receive email from the list.</p>	<p>Active</p> <p>Bounced</p> <p>Unconfirmed</p> <p>Suppressed</p> <p>Deleted</p>

The data is provided unstacked. I.e. a subscriber may be subscribed to more than one list and there will be a separate row in the data for each list that the user is subscribed to.