# PowerBI Resources & Highlights

### General Resources

* [MS Virtual Academy courses](https://mva.microsoft.com/product-training/power-bi)
  + recommended: [Jump start](https://mva.microsoft.com/en-US/training-courses/faster-insights-to-data-with-power-bi-jump-start-8291?l=aXvkNAYy_2104984382)
* PowerBI [YT Channel](https://www.youtube.com/user/mspowerbi)
* [Get started](https://powerbi.microsoft.com/en-us/documentation/powerbi-service-get-started/)
* [Matt Masson blog](http://www.mattmasson.com/) - Power Query program manager
* [Privacy levels](https://support.office.com/en-sg/article/Privacy-levels-Power-Query-cc3ede4d-359e-4b28-bc72-9bee7900b540?ui=en-US&rs=en-SG&ad=SG#__toc381720831)

### Power Query Formula Language / M Language (lowest layer for creating queries)

* [webinar](https://www.youtube.com/watch?v=IdwmH-6ED60)
* [language reference](https://msdn.microsoft.com/en-us/library/mt270235.aspx)
* Useful functions:
  + [Table.Buffer](https://msdn.microsoft.com/en-us/library/mt260741.aspx) to stop query folding and use in-memory processing
  + #shared to enumerate all available functions
  + [Repeatable functions](https://mva.microsoft.com/en-US/training-courses/faster-insights-to-data-with-power-bi-jump-start-8291?l=5SLNM9Xy_6004984382)

### DAX (middle layer for creating measures etc.)

* + [IN & EXISTS in DAX](https://www.sqlbi.com/articles/from-sql-to-dax-in-and-exists/)
    - Great in combination with [RELATEDTABLE](https://msdn.microsoft.com/en-us/library/ee634226.aspx) and [RELATED](https://msdn.microsoft.com/en-us/library/ee634202.aspx)
  + [IF](https://msdn.microsoft.com/en-us/library/ee634824.aspx), [CONCATENATE](https://support.office.com/en-us/article/CONCATENATE-Function-DAX-f96bdd4c-15c5-4b0c-bd95-cc3dbd7776fa)
  + [Date differences](http://www.powerpivot-info.com/post/143-q-how-can-i-calculate-difference-between-two-dates-in-dax-seconds-minutes-hours-days-and-months)
  + [Ignoring filters](http://sqlblog.com/blogs/marco_russo/archive/2010/04/05/all-allexcept-and-values-in-dax.aspx) - ALL
  + <http://www.daxpatterns.com/>

### Visuals (highest layer for presentation)

* [Multi-select slicer](http://community.powerbi.com/t5/Desktop/select-multiple-boxes-in-slicer/m-p/9195#M1718)
* [Building a map using longitude and latitude](http://www.radacad.com/how-to-do-power-bi-mapping-with-latitude-and-longitude-only)
* [Custom visuals gallery](https://app.powerbi.com/visuals/)
  + [Word cloud](https://www.youtube.com/watch?v=AblTenl9fqo)
  + [Chiclet slicer](https://www.youtube.com/watch?v=iYOkJ1APueY)
    - [Custom indicators](http://sqljason.com/2015/11/custom-indicators-in-power-bi-using.html)
  + [Horizontal funnel](http://blogs.msdn.com/b/powerbi/archive/2016/01/08/visual-awesomeness-unlocked-horizontal-funnel.aspx) - [rocketship C:\b1d2798accc8027426bd462bf3c4e0b1](https://www.youtube.com/watch?v=bNedi_iF_fg)

### Other Resources Useful When Creating Reports in PowerBI

* Geolocation APIs
  + <http://freegeoip.net/>
  + <http://ipinfodb.com/ip_location_api.php>