**Life Cycle of an analytics Project**

Stage 1 – Define business problem (I want to reduce telecom customer churn)

Stage 2 – Convert business problem into an analytical problem (reduce churn by 5% in North region by the next quarter)

**S.M.A.R.T.** Goals – **S**pecific, **M**easurable, **A**chievable, **R**ealistic, **T**imely

Stage 3- Business interview workshops to understand the data - demographic info, public profile

Stage 4 – Data Collection create analytics sandbox

Stage 5 – Exploration and detailed understanding of data

Data dictionary \*must

STMT\_TYPE –“Mail”, “Text”, “Couriered” **(only 3)** “personal pickup”

Stage 6- Data cleaning, Data Preparation, Data Exploration **look for derived variables** –buckets, Sales- low middle high, years need to be broken into months

Stage 7- prepare analytical model

Regression- sales in next month, demand of electricity in next week

Classification- buy or not buy, churn or no churn, active or in active

Recommendation- what is the next purchase a person wants after this one

**Segmentation problem:** Is the process of dividing a broad consumer or business [market](https://en.wikipedia.org/wiki/Market_(economics)), normally consisting of existing and potential customers, into sub-groups of [consumers](https://en.wikipedia.org/wiki/Consumer) (known as *segments*) based on some type of shared characteristics. In dividing or segmenting markets, researchers typically look for common characteristics such as shared needs, common interests, similar lifestyles or even similar [demographic profiles](https://en.wikipedia.org/wiki/Demographic_profile). The overall aim of segmentation is to identify *high yield segments* – that is, those segments that are likely to be the most profitable or that have growth potential – so that these can be selected for special attention (i.e. become [target markets](https://en.wikipedia.org/wiki/Target_market)).

Stage 8 – Evaluate and deploy the analytical model

Stage 9- Monitoring and feedback