Product

- **Problem**: What problem is the machine learning application looking to solve.
- **Business Objective**: Metric that will decide on the success of your machine learning project

Data

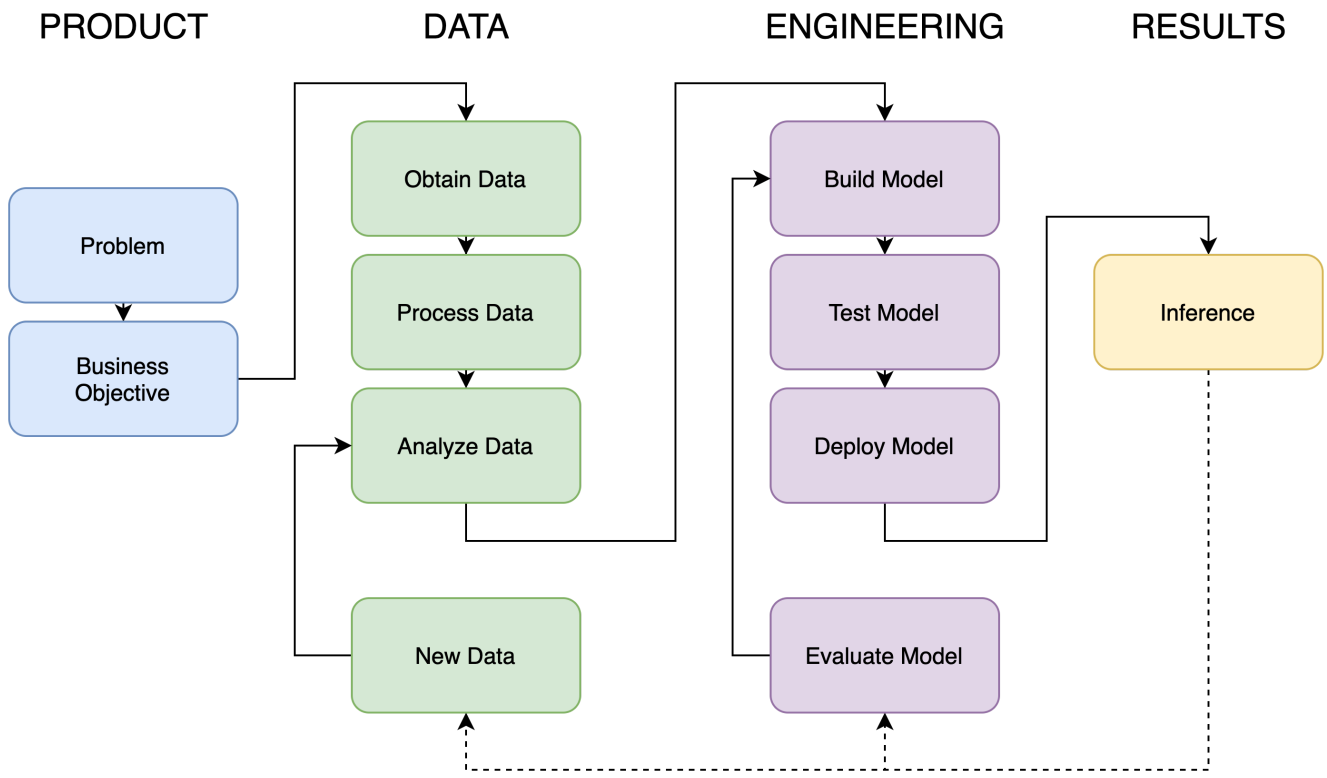
- **Obtain Data**: Start recording and storing data once the product has been decided.
- **Process Data**: Processing your data so it is structured in a way that facilitates downstream ML processes.
- **Analyze Data**: Provides insights and possible directions to take to achieve your business objective with your ML application
- **New Data**: Data will eventually be produced from the model's predictions, that can be analyzed and fed back into the cycle to modify or refine any methods

Engineering

- **Build Model**: Use processed and structured data from the previous steps to build a model.
- **Test Model**: Using metrics to measure the performance of a model on a dataset. This is the first assessment of the model and may include multiple iterations.
- **Deploy Model**: A set of requirements that need to be met for the ML application to be used in the real world, or production environment. Involves reliability of a model to always return a prediction, and responsiveness so it can return a prediction in an acceptable time frame.
- **Evaluate Model**: Evaluation is done once the model is live and produces predictions on unseen data. This will provide an answer as to how well the ML application works on real-world data.

Results

- **Inference**: Once an ML application is deployed, results are generated from the inference of the model. These can feedback into the model, where evaluations and new data produced can be used to further optimize the model.



ML Lifecycle

Additional Resources

- Everyone has their own interpretation of the ML Lifecycle. **This blog** is a good additional overview.
- There are even products geared to being a solution to the ML lifecycle. An example is **mlflow**.