**Problem Statements**

1) **Preventing Revenue Leakage and datasets**

HUL have 436 Lakme salons: company run salon or franchise salon. Revenue leakage happens from underbilling, wrong discounts, bypass system and double discounts or discounts to customers who are not eligible.   
- Audit every single salon all through the year (manual bill book, card statement reconciling with bank, any appointments have been deleted, expired products and stock counting, etc.   
- Power BI to throw outliers in certain matrix (eg if same service has been given to a customer in a single day, calling customer)

2) **Cabinet Profitability**

For ice cream business, as HUL try to get into new towns and new outlets, if right mix of product is getting sold and are we getting the right ROI   
Visualisation tool to observe the different relationship to drive the insights to growth and profitability based on the very huge datasets for analytics (establish thresholds/principles - for better decision which will led to cost savings)   
Dataset which are available: Cabinet level data identifying each outlet wherein the cabinet is placed, Sales for that outlet, mix of SKU for packs sold at the outlet, throughput (how much sales through each cabinet), cabinet level data, secondary level data, SKU mix data, margins that HUL expects from each of these products, Demography, What sells at each town, how many cabinets cabinet per person density of that town, Identifying thresholds, what is the optimum level the cabinet should be placed vis-à-vis population, margins and what kind of product sell in these markets. 2017-2018-data are present wherein the weather data related to rainfall and temperature, seasonal impact on the sales, How to predict sales basis seasonality.

3)**Analytics on Service Claims**

Water purifier category, Brand: Pureit   
Complaints are captured through calls and login.   
CRM system which HUL is using is NetSuite wherein all the information get captured.   
Licence service provider (LSP) are present at every cities with whom HUL has contracts. The complaints are routed to these LSPs based on the pin codes. They are supposed to visit the consumer and resolve the issues. HUL pay the LSP based on the visits they have conducted, reimburse for components that they have used in addressing the issue. All the faulty components collected by the LSPs are classified as specified (critical) and non-specified(non-critical)components. For controls perspective, all the faulty specified components will be send back to HUL depot at Pune. When HUL receive the same, then the payment will be made to the LSP.   
Pureit comes with one year warranty and also have extended warranty or AMC, which is also punched in NetSuite so LSPs will accordingly charge the customers   
To identify insights by analysing trend insights from studying service claims data (Primary key is the mobile no.)   
i. Complaints raised and subsequent payouts in the last month of warranty or AMC or Extended Warranty vs rest of the period   
ii. To see which of those components and device combinations are higher than the average   
iii. If a particular LSP, pin code, geography, payments claims more for out of warranty cases   
iv. Complaint closure time based on LSP, pin code, geography, device wise   
v. Analysis of the relationship between the CSAT score (OTP to be given to the LSP after the complaint is closed for feedback) with the complaint closure timelines or with the technicians, etc.   
vi. All the faulty specified components that the LSP collects sends to depot and at depot there is a checking procedure of actually how many faulty and how many not faulty but LSP has claimed from Unilever. Analysis around LSP wise, component wise, SKU wise, pin code wise, geography wise for how many faulty and non-faulty after receiving in the depot   
To build the reporting model real-time which should be linked to the dataset

4)**Single Workflow Solation for multistage approval with right SOA**

Transactions are increasing manifolds across functions. Keeping a track of the transactions in terms of approval flow or the documentation is becoming a challenge wherein email is a mode of communication (it will be scattered all across, will not be having archival and ready reference).   
Whenever a new workflow is to be created, HUL start from a scratch for each process :   
Examples:   
1. Generating a vendor code which goes for approval alongwith documentation based on which vendor code will get generated which is in Salesforce   
2. Price circulars-approval for fixing price in the price master in CRM tool   
Processes to be automated:   
1. Automatic Workflow for WBS transfers from one to another (Work Breakdown Structure) based on SOA (Schedule of Authority).   
2. Memo invoices wherever is there sampling of product which need to be approves and Sales invoice gets updated and audit trail are required   
Existing process is mail will be triggered to the category manager and approval takes place over mail and manual to be updated in SAP

Customisable format (Drag and drop functionality to customise format and workflow) wherein user can fill-in information and which can flow for approval to specific approvers based on SOA (schedule of Authority) or based on certain specifications like brands or categories,   
i. The approval to come through email notification for approval (must have)   
ii. It should have SAP interface so that changes can flow through SAP (good to have)   
iii. Access control and single sign-on with Unilever ID (must have)   
iv. Attachment capability (must have)   
v. Data Archival Capacity (must have)   
vi. Audit trail (must have)   
vii. Customised reporting (ad-hoc basis how many request raised, transfers, who approved, how many approved, how many left, volume handling) (must have)   
viii. Approve or reject and flow back to the initiator (must have)   
Tool to be developed should be cost efficient

5)**Geography / Sales Beat Optimisation**

Problem Statement:   
i. Distributor plan their deliveries based on the orders from the retailers. Most of the delivery vehicles have a combination of Sales Beat based in their deliveries. There is no optimisers to decide on the fact that if the vehicles are running overload or underload or optimising the kms   
ii. Group of shaktis are covered by separate salesman and doesn’t cover the GT outlets (retailers). As shaktis are in interior rural, so throughput of shaktis are not good, there is always a problem with ensuring delivery for the orders. There should be mushroom model wherein the deliveries of shaktis should be combined with the delivery of GTs routes   
Requirements:   
i. Do a dynamic routing to each of the distributors to retailers. Once the distributor gets the order for the day how best he can fulfil those order given his delivery fleet (savings in kms and loading) for Metros and Tier-1 cities   
ii. Sales beat optimisation: District to be mapped out the Shaktis, Distributors and GT markets. Output required is which shaktis to be marked to which distributor and which Shakti to be mapped to which salesman so that the delivery in combination to the sales beat   
Requirements:   
Change management w.r.t behavioural change: Delivery person might get a different route at given days which is not the case in the existing scenario wherein the delivery person are set for set retailers. So, the solution is to distribute it into multiple zone (static cluster in dynamic modelling)

6)**Basepack level Profitability through Power Pivot**

TM1 linked playbook to give base pack level financials for the entire MCO in one place so that the user can slice and dice the information basis the need and use it for decision making or query resolution. The constraint today is that excel does not have capability to handle extracted data at such a high size and importantly even if we manage to do so it is mostly static information which needs manual efforts to refresh the data with either month actualized or change in forecast data. Data is very heavy and data comprises of 3000-4000 basepacks, 14 clusters, 5 channels, 12 months. Different cut is taken in separate file w.r.t divisions, geographies, channel, cluster level, basepacks data, months   
Requirements: Slicing and dicing of huge set of data and get the trends and graphs for efficient decision making

7)**Drive Cost Savings through Cost data and Analytics**

HUL spends millions on raw materials through thousands of transactions with hundreds of vendors. There is massive amount of transaction level data available in SAP that can be leveraged. Pricing for materials is affected by multiple factors and can fluctuate throughout the year, so can we use an advanced-analytics algorithm to group historical purchases into statistically significant clusters. Can this help us to quickly identify a cluster of vendors by entering a description of the upcoming purchase.

A summary of cluster data highlights the average price of similar purchases, as well as a list of available vendors and the prices they offer. Using a quantitative fact base, HUL can come to the negotiating table with pricing based on historical data and information on vendors that operate in this space – this should enable a reduction in prices by driving highest purchases down towards the average

8)**Identifying Rulesets/Ideal Logic for Service Mix**

HUL has 18k salesmen across 3L outlets wherein multiple salesman visit the same outlet. (Products are divided into Detergents, Foods & Beverages, Personal Care (A & B). When salesman call more lines, they can book more lines. There is no fixed rule/recommendation of how many salesmen should visit each outlet in order to get maximum value and assortment growth out of the outlet. So how do we optimize our service mix and design beats accordingly?   
This problem of service mix can be approached from multiple angles: RSSM resourcing, RS Cost to Serve, Outlet potential to buy, etc. Challenge- Analyse these different approaches using multiple data sources and come up with which is the ideal approach to calculate service mix.   
Output- Maximize number of bills per outlet while increasing/keeping constant the overall bills and overall value