**solved an analytical business problem**

Chips retail company noticed a decline in sales and wanted to understand the root causes behind it. They asked for insights into customer purchasing behaviour and product performance.

Approach:

\* Used Python for ETL the data, EDA, identified sales trends over time using time series analysis and segmented customers based on purchasing frequency and order value.

\*Main result was the sales dropped primarily in two product categories, some products had stockouts at peak demand times, affecting revenue and to many customers had stopped purchasing after a single order (high churn rate).

My insights for a positive Impact:

targeted marketing campaigns for churned customers with personalized discounts, inventory optimization for high-demand products to avoid stockouts and offer discounts strategies for loyal customers.

My Recommendation

1. NEW FAMILIES and MIDAGE SINGLES/COUPLES life stages are the lowest Life stage that buying our product so we need to target them.
2. Products weighing 175g, followed by those at 150g, are our best-selling items. In contrast, products at 125g and 180g have the lowest sales rates.
3. I recommend introducing more attractive offers on products weighing 125g, 180g, and 70g to boost sales. Additionally, we should offer competitive promotions on 175g and 150g products while ensuring strong deals for the lowest-selling items like (WW Crinkel Cut orignal and frensh fries Potato Chips )
4. Stores 211 , 76, 11, 252, 206, 92, 193, 85 and 31 are the lowest purchases stores so we need to check the sales plan against those stores.
5. The number of sold items decreased in August and September 2018, as well as in May 2019, which negatively impacted total revenue, so I recommend targeted marketing campaigns for churned customers with personalized discounts

I recently participated in Quantium's job simulation on the Forage platform, and it was incredibly useful to understand what it might be like to participate on a data science team at Quantium.

I worked on a project to conduct analyses on a client's transaction dataset and identify customer purchasing behaviours to generate insights and provide commercial recommendations. I practiced using Python and built my Data Visualization skills in a real-world context.

Doing this program confirmed that I really enjoy working on data preparation and customer analytics, and I'm excited to apply these skills on a data science team at a company like Quantium.