My Power BI Learning Report

1. Learning

I followed this YouTube tutorial: **Power BI Tutorial**
 It helped me understand basic dashboard design, visual formatting, and how to use Power BI's data modeling features more cleanly.

2. Documentation & Project Examples from the Web

Here are some good resources / examples I reviewed to understand how to document and build Power BI projects well:

- "Document a Power BI file and report in a few clicks: all DAX code, visualization, Power Query scripts" (RADACAD) — shows how to capture measure definitions, query steps, and visuals succinctly. RADACAD

- "Documenting Your Power BI Projects" by Pragmatic Works — the importance of documenting your data model, report layout, measures, filters etc., and how to strike a balance so documentation stays useful but not overly heavy. pragmaticworks.com

- "20 Power BI Projects To Implement in 2025" (ProjectPro) — gives ideas across beginner, intermediate, advanced levels so you can see typical dashboards, metrics used, how people present KPIs etc. ProjectPro

- Best practice guides & checklists for Power BI projects (e.g. "A Best Practice Guide and Checklist for Power BI Projects" by SQLServerBI) — good for making sure I don't miss things like metadata, refresh schedules, performance, documentation etc. Paul Turley's SQL Server BI Blog

3. My Project: NT Fuel Analysis

- Used data from the **MyFuel NT** datasets on the Northern Territory Government Open Data Portal. data.nt.gov.au+3data.nt.gov.au+3data.nt.gov.au+3

- These datasets include historical daily fuel prices from retail fuel outlets across NT, for months like August, September, November 2024, etc. data.nt.gov.au+2data.nt.gov.au+2

What I Did

- Cleaned & combined the data for multiple months to see trends over time.

- Visualized fuel price variations by outlet, by suburb, by date.

- Created line charts to track price changes over time, bar charts for comparison across suburbs or fuel types.

- Built a dashboard in Power BI with filters so the user can select month, fuel type, region.

Insights (from the data)

- There are notable seasonal / monthly fluctuations in fuel prices — some months showed steeper increases than others.

- Some suburbs or retail outlets consistently have higher or lower prices, suggesting location / competition / supply cost differences.

- A few outliers (days) where fuel pricing spiked more than typical — might be due to external factors (transport cost, supply delay, etc.).

4. What I Learned / What's Next

- Importance of good **data cleaning**: missing values, date formats, consistent naming for suburbs/outlets are critical.

- Using **filters & slicers** in Power BI helps make interactive dashboard visuals much more usable.

- Need to document my measures (DAX), data transformations (Power Query), layout choices so if someone else looks at the dashboard they can follow my logic.

- Next I want to explore adding forecasting / trend modeling, and more descriptive statistics (percent change, moving averages) to the dashboard.