THERAPEUTIC AREA DESCRIPTION SHEET

Disease / Condition: Oncology

- Oncology remains one of the largest and most data-rich therapeutic areas, accounting for nearly **40% of global clinical trials**.
- Cancer trials are known for complex designs, long durations, and high dropout rates — perfect for analyzing **retention and completion patterns**.
- The oncology domain demonstrates knowledge of **high-impact, high-regulation** research — valuable for data roles in pharma, CROs, and healthcare analytics.

Other Term: Immunotherapy

- Immunotherapy represents the **cutting edge of cancer treatment**, targeting the immune system rather than tumor cells directly.
- It brings challenges like **variable patient response** and **long-term follow-up**, making it ideal to study **factors influencing trial success and dropout**.
- Its rapid innovation and wide adoption reflect **current industry focus**, strengthening the project's relevance to modern drug development.

Treatment / Intervention: Pembrolizumab (Keytruda)

- Pembrolizumab is one of the most widely studied checkpoint inhibitors, with trials across **multiple cancer types and phases**.
- It provides consistent, high-quality data for comparative analysis (e.g., sponsor type, completion rate, phase success).
- Its prominence in oncology pipelines highlights an understanding of **real-world, commercially critical therapies** — something employers in PV and data analytics appreciate.

Location: United States

- The U.S. hosts the **largest share of registered clinical trials**, ensuring richer, more standardized, and complete datasets.
- Trials follow **strict FDA and NIH standards**, which means fewer missing values and clearer metadata for analytics.
- Focusing on U.S. trials shows awareness of **global regulatory benchmarks** and the data environment used by most international sponsors.

Summary:

This project focuses on oncology immunotherapy trials involving Pembrolizumab conducted in the United States. The selection was driven by the therapeutic importance of cancer research, the data depth available in immunotherapy studies, the widespread industry relevance of Pembrolizumab, and the data reliability from U.S. based trials. Together, these parameters ensure both analytical richness and professional relevance to real-world drug development.