The Department of Behavioral Health and Developmental Services (DBHDS) seeks to promote dignity, choice, recovery, and the highest possible level of participation in work, relationships, and all aspects of community life for individuals with mental illness, developmental disabilities or substance-use disorders. DBHDS operates 12 state facilities and partners with 40 locally-run community services boards and hundreds of private providers statewide.

For more information, please visit [dbhds.virginia.gov](http://www.dbhds.virginia.gov/), and find DBHDS on [Facebook](https://www.facebook.com/DBHDS/), [LinkedIn](https://www.linkedin.com/company/virginia-department-of-behavioral-health-and-developmental-services/), [Instagram](https://www.instagram.com/vadbhds/), or [YouTube](https://www.youtube.com/c/VirginiaDBHDS).

We are seeking assistance with developing foundational differential privacy capability which can enhance the synthetic data generation process at DBHDS. Capability needs to augment with the current synthetic data generation process and provision a user interface which can report out data points and metrics that have been augmented to ensure generated synthetic data enables differential privacy. Focus would be to build pluggable configuration validators for re-use.

We are further seeking assistance with developing identifying operational metrics and KPI for the prioritized data governance policies for the agency and design and enable visualization using Power BI dashboard.

This project will consist of a few key deliverables:

1. Build solution components with clear documentation to enable differential privacy for dataset.
   1. Documenting the minimum viable differential privacy requirements
   2. Generate simple solution accelerators which will apply the requirements identified in a) using AWS native services components or Python.
   3. Build an adaptor to consume HL7/CSV/FHIR files/message, validate with pluggable validation configurations and stream as single records for downstream consumptions using AWS native serverless technologies and event driven mechanism.
   4. Create Dashboards or user interfaces which report on data points /KPI metrics being applied on data elements.
2. Builds Data Governance Operational KPI Dashboard.
   1. Create baseline operational KPI metrics for the data governance policies identified by agency for the data governance process in place.
   2. Design Visualization which can report on the operational KPI on Power BI
   3. Create documentations detailing the dashboard creation.
3. For all the above we need Documentation (research/ writeup / development artifact), code, Use AWS native services and serverless for item 1, Power BI.

The critical skills we are seeing for this engagement include:

* Proficiency with AWS Native services, Power BI
* Knowledge of healthcare terminology and/or ICD-10 medical billing codes is helpful but not required.
* Ability to understand and advise on solutions for unique business challenges and to develop a user-friendly, low-code application to serve as an end-user interface.
* Flexibility to work and communicate remotely and also in our Richmond, VA office from time to time