COVID 19 REPORTING & DATA ANALYSIS

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WHAT ARE WE GOING TO INVESTIGATE

- Problems with the existing solutions
- factors that could limit the scope of the project
- Ethical framework's
- Project timeline
- Key literature

PROBLEMS WITH CURRENT SOLUTIONS

- No One Way of Providing New Data
- No Unified Agreed Dataset between reporting authorities
- Processing delays (12h / 24h) for ingest of new data
- Manual processing of data (Data Cleansing) required to conform data
- No Realtime reporting for Trend Analysis

RESEARCH TOPICS

- What is the outcome of Non Unified Datasets on COVID19 Research
- What Data Items are optimum for Covid 19 Research
- What types of visualizations best allow for interpretation of datasets
- Realtime Processing of User and Agency generated submissions

WHAT DO WE WANT OUT OF THE RESEARCH

- Playbook for Agile data capture and processing
- Improve Knowledge in the Field of COVID19 data and data processing
- Ability to use GIS analysis on data

TANGIBLES / OUTCOMES

- REST API (JSON , GRAPH)
- Data Cleaning procedures / techniques
- DBMS DESIGN (SQL , NOSQL)
- Reports & Dashboard Designs
- Platform Architecture Design
- Decision Matrix + HOTS (Hand Over To Support) Document

BLOCKERS & LIMITATIONS ON SCOPE

- Data Protection Impact Assessment
- Resistance from Existing Agency's
- Funding and resources allocation

LEGISLATION

- General Data Protection Regulations (GDPR) 2018
- DPA Data Protection Act
- Security & Protection of Assets

METHODOLOGY

We will be using a number of different Methodology's these will include the following

1. Reviews of existing processes
2. Dialogues with SMEs in the field
3. Focus Groups where appropriate
4. Trials to determine optimum solution
5. Secondary Data Examination

TIMELINES

Waterfall approach with the research being split into 5 Pillars

1. Requirements
2. Design
3. Implementation
4. Confirmation
5. Maintenance / Reworking

REFERENCE PAPERS

Key Reference papers

- Dong, E., Ratcliff, J., Goyea, T. D., Katz, A., Lau, R., Ng, T. K., Garcia, B., Bolt, E., Prata, S., Zhang, D., Murray, R. C., Blake, M. R., Du, H., Ganjkhanloo, F., Ahmadi, F., Williams, J., Choudhury, S., & Gardner, L. M. (n.d.). The Johns Hopkins University Center for Systems Science and Engineering COVID-19 Dashboard: data collection process, challenges faced, and lessons learned.

- Falisse, J.-B., & McAteer, B. (2022). Visualising policy responses during health emergencies. Learning from the COVID-19 policy trackers. Convergence, 28(1), 35–51. https://doi.org/10.1177/13548565211048972


Thank You
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