**Ideation Phase**

**Defining the Problem Statements**

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| **Team ID** |  |
| **Project Name** | **6112-Covid-19 Cases Analysis** |

**Covid-19 Cases Analysis**

**Problem Definition and Design Thinking**

**Introduction:**

The COVID-19 pandemic has posed unprecedented challenges to public health, economies, and societies worldwide. As we navigate these turbulent times, the need for rigorous analysis and informed decision-making is paramount. This case analysis employs a Design Thinking approach, leveraging IBM Cognos, to tackle the multifaceted aspects of the pandemic.

**Problem Statement:**

**Objective:** The primary objective is to harness data and analytics to understand, address, and innovate in response to the COVID-19 pandemic. This involves empathizing with affected individuals, defining critical challenges, generating innovative solutions, and translating insights into actionable policies. It also entails prototyping, testing, and iterative refinement to ensure effective responses based on real-world outcomes.

**Data:**To achieve our objectives, we will utilize a diverse range of data sources, including epidemiological, demographic, vaccine-related, economic, social media, and genomic sequencing data. These sources will provide a comprehensive foundation for our data-driven analysis and decision-making throughout the COVID-19 pandemic response.

**Key Challenges:**

The challenges we face in this analysis are manifold:

**1.Data Quality and Availability:** Ensuring data accuracy, completeness, and timeliness is essential.

**2. Privacy and Ethics:** Safeguarding individuals' privacy while using sensitive health and location data.

**3. Complexity:** The multifaceted nature of the pandemic demands interdisciplinary expertise.

**4. Fast-Paced Environment:** The situation evolves rapidly, requiring timely responses.

**5. Communication:** Effectively conveying complex findings to diverse audiences is crucial.

**Design Thinking Approach:**

**Empathize:**

We will start by understanding the experiences and concerns of people affected by COVID-19, acknowledging their fears and needs.

**Define:**

This phase involves clearly defining the specific problems we aim to address, such as identifying high-risk communities or assessing the impact of vaccination campaigns.

**Objectives:**

Develop data cleaning processes in IBM Cognos that ensure data accuracy and completeness.

Create IBM Cognos dashboard and reports that provide real-time COVID-19 insights.

Produce data-driven narratives and visualization within IBM Cognos that inform policy decisions.

**Ideate:**

Innovative solutions will be generated, such as predictive models for case trends, targeted public health campaigns, or vaccine distribution strategies.

**Actions:**

Brainstorm creative solutions, such as predictive modeling for case trends or novel communication strategies. Foster an open and collaborative environment to encourage diverse idea generation. Prioritize ideas based on feasibility, impact, and alignment with the defined problems.

**Prototype:**

We will develop data-driven prototypes, leveraging IBM Cognos for visualizations and dashboards, to communicate insights effectively.

**Actions:**

Create visualizations and dashboards using tools like IBM Cognos to convey data-driven insights. Develop mock-up interventions or communication materials for testing. Ensure prototypes effectively communicate complex information to diverse audiences.

**Test:**

Proposed solutions will be rigorously tested against real-world data to ensure their feasibility and impact.

**Actions:**

Apply proposed solutions to real-world data to assess their performance. Solicit feedback from end-users and stakeholders on the effectiveness and usability of interventions. Continuously monitor the impact of strategies and refine them based on outcomes.

**Implement:**

Insights will be translated into actionable policies and interventions, aligning with the needs of different stakeholders.

**Actions:**

Translate insights into actionable policies, guidelines, and interventions. Collaborate with relevant stakeholders to ensure the seamless execution of strategies. Communicate and educate the public, healthcare professionals, and policymakers about the implemented actions.

**Iterate:**

Continuous monitoring and adaptation of strategies based on outcomes will be central to our approach.

**Actions:**

Continuously monitor the evolving COVID-19 situation and adapt strategies accordingly .Collect and analyze feedback from stakeholders to drive ongoing improvements. Stay agile and flexible in responding to new challenges and emerging data trends.

**Conclusion:**

Incorporating the Design Thinking approach, bolstered by IBM Cognos, allows us to not only analyze COVID-19 cases comprehensively but also to drive meaningful action. By empathizing with those affected, defining clear problems, ideating innovative solutions, and continually iterating based on data, we can navigate the complexities of the pandemic effectively. This approach ensures that our responses are evidence-based, adaptable, and aligned with the evolving nature of the crisis, ultimately contributing to better public health outcomes and informed decision-making.