IBM RECOGNITION WITH IBM DATA ANALYTICS

PROBLEM STATEMENT:

On IBM Data Analytics ,we will be uploading images and IBM water quality analysis on the various objects,faces and images that are present in the images.

1. INTRODUCTION

Water is a vital resource for the sustenance of life on Earth. Ensuring quality is paramount to human health, environmental preservation, and economic prosperity. Given the escalating environmental issues, urbanization, and industrial expansion, the requirement for precise water quality measurement has never been more pressing.

2. PROBLEM DEFINITION: STATING THE NEED FOR WATER QUALITY ANALYSIS

HEALTH IMPLICATIONS: Contaminated water poses a direct threat to human health. Consumption of impure water can lead to diseases such as cholera, typhoid, and dysentery.

ENVIRONMENTAL IMPACT:
Poor water quality can devastate ecosystems. Aquatic life, dependent on certain conditions, can perish when exposed to polluted waters.

ECONOMIC IMPLICATIONS:
Industries that depend on agriculture and fishing in particular can suffer significant losses as a result of poor water quality. Furthermore, in areas with dirty water sources, tourism may suffer.

SOCIAL IMPLICATIONS:
Access to clean water is a fundamental human right. Regions without it can face social unrest, displacement, and reduced quality of life.

3. DESIGN THINKING APPROACH FOR WATER QUALITY ANALYSIS

A human-centred innovation strategy known as "design thinking" combines what is desired from a human perspective with what is technically possible and commercially viable. In order to apply design thinking to water quality analysis,

EMPATHISE:
Understand the people for whom we are designing solutions. This involves knowing the challenges faced by communities due to polluted water sources and understanding the needs of industries relying on water.

DEFINE:
Clearly articulate the challenges and problems. What contaminants are we most concerned about? Is the focus more on biological agents, chemical pollutants, or both.

IDEATE:

Generate a range of solutions without restraint. This might involve brainstorming ways to make water quality testing more affordable, faster, or more accessible.

PROTOTYPE:
Develop tangible representations of the ideated solutions. This could be a new type of water testing kit, a mobile app to report water quality, or an educational program.

TEST:
Implement the solution on a small scale to gather feedback and iterate. The prototype could be tested in a specific community or an industry to gauge its efficacy.

4. **KEY CONSIDERATIONS FOR DESIGN SOLUTIONS:**

SCALABILITY: Solutions need to cater to both small communities and larger urban environments.

ACCESSIBILITY: Tools and resources should be accessible to everyone, irrespective of their location or economic status.

ACCURACY: Ensuring the precision and reliability of water quality tests is paramount.

AWARENESS: Promoting awareness and educating communities about the importance of water quality is as crucial as the solutions themselves.

AFFORDABILITY: Solutions must be economically feasible and must be used very easily,the handling process must be feasible that even in rural areas it can be incorporated

5. CONCLUSION

Water quality analysis is not just a technical challenge but one that has profound implications for society, health, and the environment. Using a design thinking approach ensures that solutions are human-centred, addressing real-world challenges with innovative and sustainable methods. As water crises become more prevalent, leveraging design thinking can pave the way for holistic, efficient, and inclusive solutions.