IBM

HINDUSTHAN EDUCATIONAL AND CHARITABLE TRUST
HICET

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

INDUSTRIAL USE CASES

PREDICTIVE MODELLING ANALYTICS

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PROBLEM STATEMENT

Develop a predictive analytics model to identify health-related risks within a population, enabling targeted interventions and preventive measures. Segment the population based on risk factors such as demographic data, lifestyle choices, and medical history to tailor healthcare interventions effectively.

ABOUT INDUSTRY:

INDUSTRY NAME: Healthcare predictive Analytics

EXPLANATION:

Healthcare Predictive Analytics is an industry focused on utilizing data analysis and statistical algorithms to forecast health outcomes and identify potential risks within populations. By analyzing various data sources including electronic health records, demographics, and lifestyle factors, predictive analytics helps healthcare providers and organizations proactively intervene to prevent illnesses, improve patient care, and optimize resource allocation.

SOLUTION

To address population health risks, utilize predictive analytics to analyze demographic, clinical, and behavioral data. Segment the population based on risk factors such as chronic conditions, lifestyle choices, and socioeconomic status. Implement interventions tailored to each segment to promote proactive healthcare management. Continuously evaluate outcomes to refine predictive models and optimize population health strategies.

SPSS SOLUTIONS

SOLUTION EXPLANATION

Data Integration and Analysis Platforms: Implementing robust data integration and analysis platforms that can aggregate various data sources such as electronic health records (EHRs), claims data, social determinants of health (SDOH) data, and environmental data. These platforms utilize advanced analytics techniques like machine learning algorithms to identify patterns, trends, and risk factors within the population.

Personalized Health Interventions: Leveraging predictive analytics to tailor interventions and healthcare services to individual needs based on their risk profile. By understanding the unique characteristics and risks of different population segments, healthcare organizations can design targeted interventions that address specific health concerns and promote better health outcomes.

Population Health Management Platforms: Implementing population health management platforms that provide comprehensive tools for monitoring, managing, and improving the health of defined populations. These platforms utilize predictive analytics to identify high-risk individuals, track healthcare utilization patterns, and evaluate the effectiveness of interventions over time, enabling proactive population health management strategies.

THANK YOU!