PROJECT 7: COVID 19 USING COGNOS

STEP 1: Data Gathering:

a. Collect COVID-19 data from reliable sources such as government health departments, WHO, CDC, or other relevant sources
b. The data should include information like the number of cases, deaths, recoveries, and demographic data.

STEP 2: Data Cleaning and Transformation:

a. Use ETL (Extract, Transform, Load) processes to clean and transform the raw data into a format that's suitable for analysis.
b. Remove duplicates, handle missing values, and ensure data consistency.

STEP 3: Data Modeling:

a. Design a data model in Cognos that represents your COVID-19 data.
b. Create a database or data warehouse to store the transformed data.

STEP 4: Data Analysis:

a. Use Cognos Query Studio, Report Studio, or other Cognos tools to create reports and dashboards.
b. Analyze the data to identify trends, patterns, and insights related to COVID-19. For example, you can create visualizations to show the daily or weekly cases, compare the impact in different regions, or assess the effectiveness of various measures.

STEP 5: Geospatial Analysis:

a. If you have geographic data (e.g., location of cases), Cognos can be used to create maps and perform geospatial analysis to understand the spread of the virus across different regions.

STEP 6: Alerts and Monitoring:

a. Set up alerts or triggers in Cognos to notify relevant stakeholders if certain conditions are met. For example, you could create an alert when cases in a particular region exceed a certain threshold.

STEP 7: Data Security and Compliance:

a. Ensure that your use of COVID-19 data complies with privacy and data protection regulations. Cognos offers security features to restrict access to sensitive data.

STEP 8: Sharing Insights:

a. Share your reports and dashboards with decision-makers, public health officials, or the public, as appropriate.
b. Cognos provides various methods for sharing reports, such as exporting to PDF, embedding in web pages, or using Cognos Analytics portals.

STEP 9: Regular Updates:

a. COVID-19 data is continually evolving. Set up a process for regular data updates and automate the analysis and reporting where possible.

Requirements for COVID 19 Using Cognos

Software Requirements:

1. **IBM Cognos Analytics:**
    - You will need access to IBM Cognos Analytics, which includes Cognos Report Studio, Cognos Query Studio, Cognos Workspace, and other components for data analysis and reporting.
2. **Database Management System (DBMS):**
    - IBM Cognos can connect to various DBMS systems, so you'll need a compatible database (e.g., IBM Db2, Microsoft SQL Server, Oracle, etc.) to store and retrieve COVID-19 data.
3. **Operating System:**
    - IBM Cognos supports various operating systems, including Windows, Linux, and AIX. Ensure that your server and client systems are compatible with your chosen operating system.
4. **Web Browser:**
    - For accessing and interacting with Cognos reports and dashboards, you'll need a modern web browser like Google Chrome, Mozilla Firefox, or Microsoft Edge.
5. **Data Sources:**
    - Ensure that you have access to COVID-19 data sources, such as government health department data, third-party data providers, or your own data repositories.

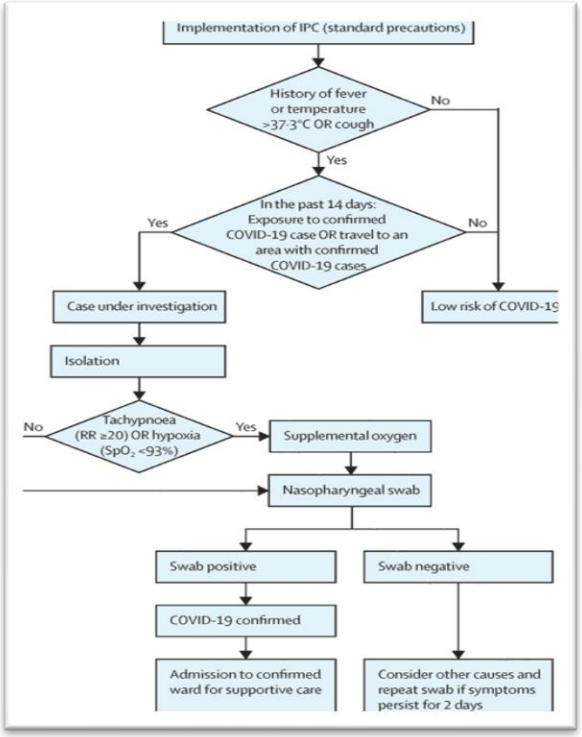
Hardware Requirements:

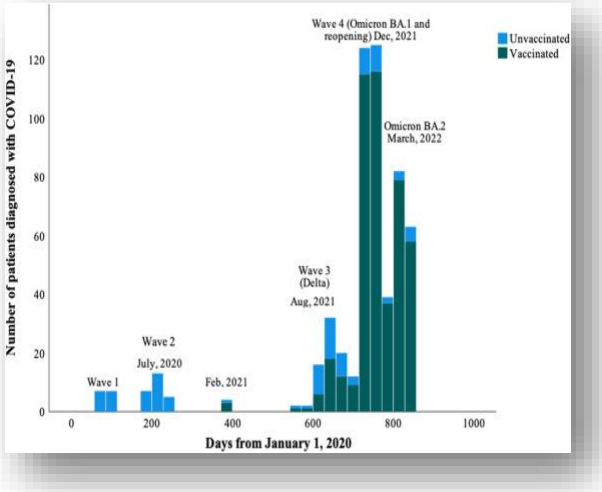
1. **Server Hardware:**
    - IBM Cognos typically runs on a server or cloud infrastructure. The hardware requirements depend on the size of your dataset and the number of concurrent users. Common server hardware includes multicore processors, ample RAM, and sufficient storage capacity.
2. **Client Devices:**
    - Users will need desktop or mobile devices to access Cognos reports and dashboards through web browsers.
3. **Networking Infrastructure:**
    - A robust networking infrastructure is necessary to ensure that data can flow seamlessly between Cognos servers and clients. High-speed internet may be required for remote access.
4. **Data Storage:**
    - Ensure that your server has enough storage capacity to store the data you'll be analyzing and the reports you generate.
5. **Redundancy and Backup Systems:**

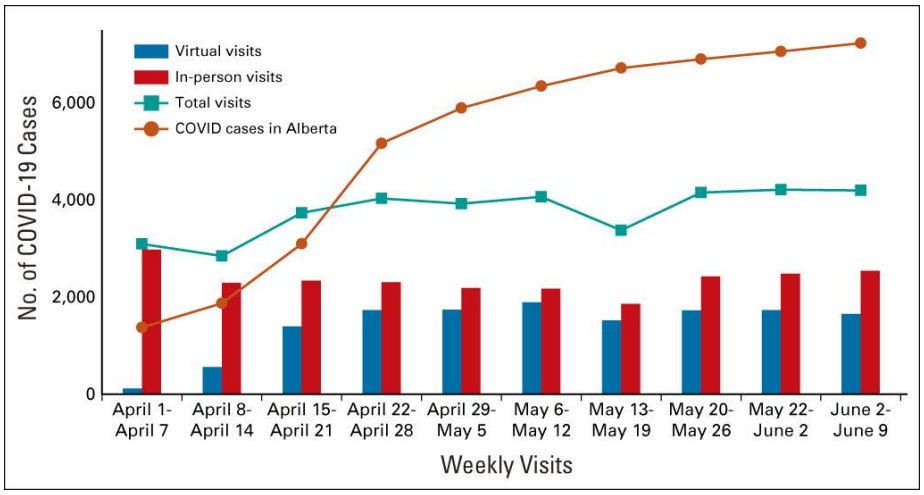
- To ensure data integrity and availability, implement backup systems and redundancy measures.

6. **Security Measures:**
    - Implement security measures, such as firewalls, encryption, and access controls, to protect COVID-19 data and adhere to data privacy regulations.
7. **Scalability:**
    - Plan for scalability as COVID-19 data volumes may change over time. Ensure that your hardware can accommodate increased data and user loads.

FLOWCHART







Expected output:

Chart 5.4.7
Smoking frequency of 15-year-olds on the Parkview Secondary School track and field team, by gender