

COVID-19 ANALYSIS USING IBM COGNOS DASHBOARD

CONTENTS

S NO	TOPIC	PAGE NO
1	INTRODUCTION	2,3
2	LITERATURE SURVEY	3
3	THEORITICAL ANALYSIS	4,5,6
4	EXPERIMENTAL INVESTIGATIONS	7,8
5	FLOWCHART	9,10
6	RESULT	11,12
7	ADVANTAGES & DISADVANTAGES	12,13
8	APPLICATIONS	13
9	CONCLUSION	14
10	FUTURE SCOPE	14,15
11	BIBILOGRAPHY	15

1 INTRODUCTION

1.1 OVERVIEW

Project Title - COVID-19 Analysis Using IBM Cognos Dashboard

A brief description about our project:

Introduction:

- **Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).**
- **The most recently discovered coronavirus causes coronavirus disease COVID-19 - World Health Organization.**
- **The number of new cases are increasing day by day around the world. This dataset has information from the states and union territories of India at daily level.**
- **As per this project we will be analyzing some important visualizations, creating a dashboard and by going through these we will get most of the insights of COVID 19 in India.**
- ◆ The service used IBM Cognos Analytics.
- ◆ In this we will analysis the data visualization charts are:
- ◆ covid-19 in India
- ◆ Percentage of Confirmed Cases of Top 10 Affected States
- ◆ Top 10 State Wise No of Confirmed Cases
- ◆ Statistics of Chosen State
- ◆ Monthly Analysis
- ◆ The final description in COVID_19 analysis using IBM cognos dashboard is creating the visualizations in a dashboard and export it.

2.2 PURPOSE

The use of this project.what we can achieved using this.

- By Covid-19 analysis using IBM cognos dashboard we will :

>> know fundamental concepts and can work on IBM Cognos Analytics.

>> Gain a board understanding of plotting different graphs.

>> Able to create meaningful dashboards.

>> can make any dataset to understand different graphs.

2 LITERATURE SURVEY

2.1 EXISTING PROBLEM

Coronaviruses are a large family of viruses which may cause illness in animals or humans. In humans, several coronaviruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered coronavirus causes coronavirus disease COVID-19 - World Health Organization.

The number of new cases are increasing day by day around the world. This dataset has information from the states and union territories of India at daily level.

As per this project we will be analyzing some important visualizations, creating a dashboard and by going through these we will get most of the insights of COVID 19 in India

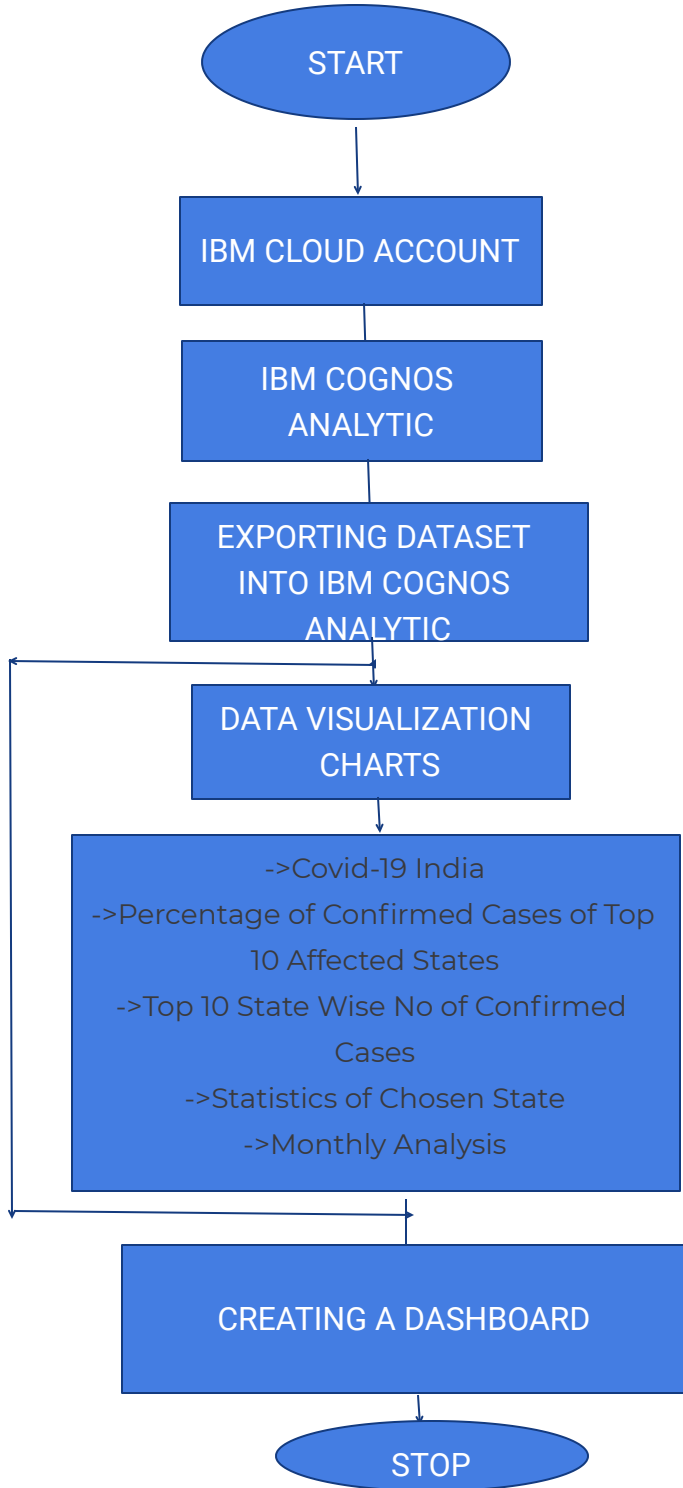
3.2 PROPOSED SOLUTION

Here we are going to detect the dataset format survey in easy format by the service IBM Cognos Analytic dashboard. Cognos Analytics integrates reporting, modeling, dashboards, stories and events management so you can understand our organization's data, and make effective decisions. By exporting the dataset into IBM Cognos analytic we can monitor events or activities at a glance by providing key insights and analysis about your data on one or more pages or screens. We can change the visualization type or change the columns that are used in the visualization. We can add widgets such as text, media, web pages, images and shapes. We can sort data in either the x-axis or y-axis, depending on what type of data is in x-axis. We can customize a dashboard, story, or visualization by changing its visual properties also we can adjust the appearance of data in an asset.

3 THEORTICAL ANALYSIS

3.3 BLOCK DIAGRAM

Diagrammatic overview of the project :



3.2 HARDWARE/SOFTWARE DESIGNING

Hardware and software requirements of the project

software requirements:-

About this accelerator All customers desire the capability to squeeze the maximum performance out of their IBM Cognos Analytics investment. Cognos Analytics is but a part of software and hardware environment. A single bottleneck in either the software or hardware has a ripple effect for the entire system. software product compatibility reports provide up to date information about the supported environments and minimum requirements for the product/data.

Cognos Analytics on premises 11.1.x

Cognos Analytics on Premises (11.1.7),(11.1.6),(11.1.5).....

Requirements by type	Requirements by platform	Supplementary information
● Operating Systems	● AIX	● Supported and tested client drivers 11.1.7
● Software(including application servers, data sources, and web browsers)	1. Linux 2. Mobile OS 3. Windows	
● Hardware		● supported and tested client drivers 11.7.0

Hardware requirements:-

The hardware requirements depend on our IBM Cognos environment. we may require additional resources, such as disk space.

Requirement RAM with recommended: 4GB

Note: Although it is possible to run controller using the minimum specifications, unless there are exceptional circumstances it is best to use at least the recommended specifications. operating system specification is Microsoft Windows 2008 R2 Enterprise Edition, Ram with minimum 8GB, Disk space with minimum 4GB, CPU Cores of 4, Web server is Microsoft Internet Information Services(IIS), Data base for IBM Cognos Business intelligence content store must be one of the following types are:

- Oracle DB2
- Microsoft SQL server
- TCP/IP connectivity to Microsoft SQL server

Database for IBM Cognos Controller data must be one of the following types are:

- DB2
- Oracle
- Microsoft SQL Server

Oracle client Database if are using Oracle client as database, the following components are the minimum requirements: -- Oracle Network Utilities

- Oracle Database Utilities
- SQL*Plus
- Oracle JDBC/OCI Interface
- Oracle Windows Interface

Note: we must install both the 32-bit and 64 bit on the server.

Database for financial analytics publisher requires DB2, Oracle, Microsoft SQL Server Web browser Microsoft Internet Explorer.

Reporting tool for Financial Analytics is IBM Cognos TM1, other TM1 supported viewers.

Others are Microsoft Excel is required to be installed on IBM Cognos controller computers. Microsoft Excel is required only to use the IBM Cognos Controller Link for Microsoft Excel.

4 EXPERIMENTAL INVESTIGATIONS

Analysis or the investigation made while working on the solution.

While working on the solution we investigated on the what is COVID-19 ANALYSIS, IBM cloud,

IBM cognos analytics and how to build different visualizations and creating a dashboard and finally exporting it. The key role on investigation is collection of dataset with its all data points of every state because our solution mainly need this so we worked on these aspects.

COVID-19 :Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus.

Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it's important that you also practice respiratory etiquette (for example, by coughing into a flexed elbow).

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization.

Most common symptoms:

- fever.
- dry cough.
- tiredness.

Less common symptoms:

- aches and pains.
- sore throat.
- diarrhoea.

- conjunctivitis.
- headache.
- loss of taste or smell.
- a rash on skin, or discolouration of fingers or toes.

Serious symptoms:

- difficulty breathing or shortness of breath.
- chest pain or pressure.
- loss of speech or movement.

On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days.

IBM Cloud Account: In these rapidly changing times, we all need to get the best information available to make better informed decisions. Between news reports, adjusting to social distancing practices, and other daily adjustments, many of us face a deluge of incoming information. IBM is making it easier for people around the world to stay up to date on COVID-19 in their vicinity as demand for the latest news and statistics surges week-to-week.

Using [IBM Cognos Analytics](#), IBM has developed a new, [interactive global dashboard](#) to show the spread of COVID-19 across the world. The COVID-19 data reflected in this dashboard is pulled from state and local governments and the [World Health Organization](#).

The dashboard is designed to give the general public, researchers and even government officials detailed, localized and current information about COVID-19.

creating the IBM cloud account by going to the IBM cloud login page, and click create on IBM cloud account. Enter our IBMid, and an ID is created based on the email that we enter. Completing the remaining fields with our information, and click create account by this the account is created.

Dataset collection: The data collection on covid-19 analysis

by: ● Articulate the problem early. ● Establish data collection. ● check our data quickly.

1. Format data to make it consistent.

2. Reduce data.
3. Complete data cleaning.
4. Decompose data.
5. Join transactional and attribute data.

IBM Cognos Analytics: IBM cognos analytic is a web-based integrated business intelligence suite by IBM. It provides a tool set for reporting,analytics,score carding,and monitoring of events and metrics. creating amazing meaning full dashboards using cog nos analytics.

Creating a Dashboard: Dashboard track KPIs,metrics,and other data points in one visual,central place. They give a high level view of work,helping to make quick decisions and keeping everyone up to date. storing the dataset into the dashboard we need to import the data into it.

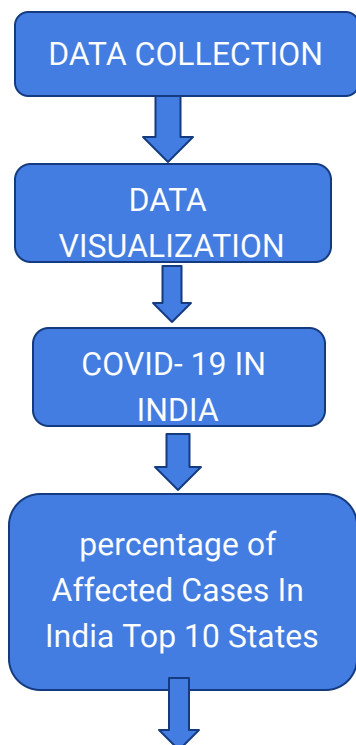
set up our excel dashboard file create a table with the raw data Analyze the data build the dashboard customize with Macros,color,and More..

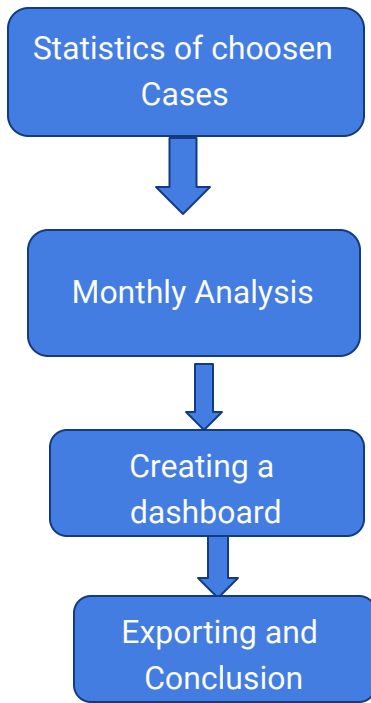
To export the Dashboard: To save the dashboard as image , select image. The select location for download dialog box opens..

To save the dashboard as a Flash file, select MHT, then do one of the following. To save the dashboard as a PDF file, select PDF dashboard is exported and displayed in a browser window.

5 FLOW CHART

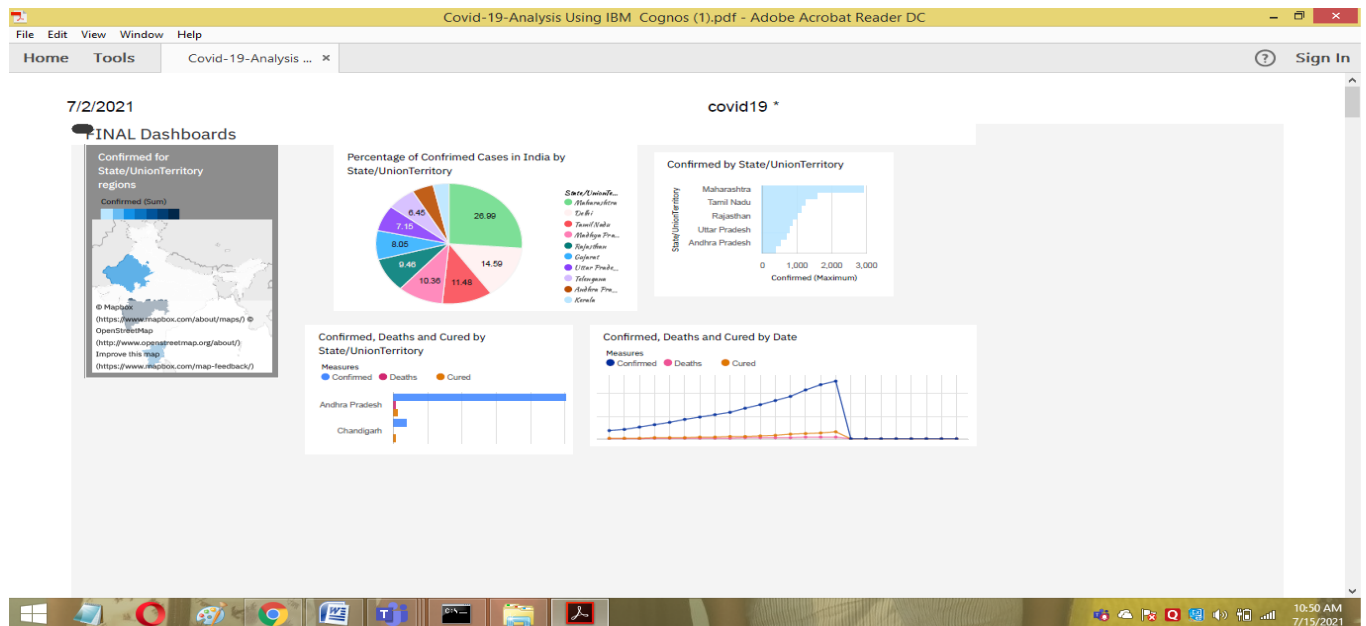
Diagram showing the control flow of the solution :





6 RESULT

Final findings (output) of the project along with Screenshots.



7 ADVANTAGES AND DISADVANTAGES

List of advantages and disadvantages of the proposed solution.

Advantages:

- Lower costs--reduces maintenance due to complete report coverage and zero-footprint environment.
- Faster results--shortens reporting time due to seamless integration and adaptive authoring.
- Improved decision making--reports and dashboards present data in easily-understood formats.
- Adaptive authoring automatically adjusts report layout when objects are added,moved,or removed.
- Ability to work with data using familiar business terms. -- Ability to use a variety of charts--cross tabs,bar or 3D bar,pie or doughnut,line,gauge,funnel,scatter,dot density,waterfall,and so forth.
- Ability to create complex, multi-page layouts using different data sources.

- High performance data access across all sources.
- Complete connectivity regardless of environment.
- open architecture that leverages XML,SOAP,and WSDL.
- Ability to integrate seamlessly with the selling and Fulfillment Foundation, without the user having to log in to the application again.

Disadvantages:

Along with benefits of IBM Cognos analytics mentioned above, there are a few drawbacks to know about, as well.

some of the disadvantages are:

1. Total cost of ownership(TCO) is more significant than other tools.
2. Minimal forecast capabilities.
3. Investment in cognos R and D by IBM is declining.
4. wont work smoothly with large data sets having many parameters.
5. cross-browser compatibility is often problematic.

8 APPLICATIONS

The areas where this solution can be applied.

1. Query performance
2. General production system performance
3. Aggregate view of data vs transactional view
4. Complex SQL
5. Normalized databases are typically tuned for simple queries

9 CONCLUSION

Conclusion summarizing the entire work and findings.

>>From this entire findings we know fundamental concepts and can work on IBM Cog nos Analytics

>>Gain a board understanding of plotting different graphs.

>>Able to create meaningful dashboards

>>Learn to build stunning dashboards with cognos analytics

>>create tabbed dashboards and stories using the new dashboard tool of cog nos v11

>>Master the full-fledged Report Authoring tool

>>We will understand how a dashboard is different from a report,when to use both

>>we will understand the reporting interface

>>Implementing cross tabs and SQL queries

From the crop production we entries the value of commitment, stay grounded and humble to our nature, gratitude goes a long way, great things take time,working hard and having fun can happen at the same time,pay it forward with generosity

10 FUTURE SCOPE

Enhancements that can be made in the future.

Cognos is the one of the leading BI suites in the market for meta data modelling and reporting so learning this will be definitely helpful in our career growth in BI domain. IBM cog nos TM1 form 10 has been around for decent time and has officially experienced a few minor and real updates.

IBM cog nos analytics leads to better decisions and improves company performance and profitability. we can scope the better job in future with easy experience.

Total 709 companies are most often in computer software industry.

Rightly so, a good majority of them focus on the strategic aspects of dashboard creation such as understanding our audience and purpose first, and choosing the best charts to display our data visually for maximum readability and insights.

The training industry quarterly further narrow scope for specific industries, audiences, or purposes, providing tips on the tailor dashboards for learning & development.

11 BIBILOGRAPHY

References of previous works or websites visited/books referred for analysis about the project, solution previous findings etc.

[https://knoema.com/insights?tag=covid 19%20dashboard](https://knoema.com/insights?tag=covid%20dashboard)

<https://agrionline.nic.in/dash/dash.html>