

## INTRODUCTION

National Literacy Mission (NLM) is a nationwide program started by government of India in 1988 with the approval of the Cabinet as an independent and autonomous wing of the Ministry of HRD (the then Department of Education). It aims to educate 80 million adults in the age group of 15-35 over an eighty-year period. Literacy is the capacity confidence and disposition to use language in all its forms. Literacy incorporates a range of modes of communication including music, movement, dance, storytelling, visual arts, media and drama, as well as talking, listening, viewing, reading and writing.

Gardner defines data literacy as the ability to read, write and communicate data in context, including an understanding of data

# Empowering the Future: A literacy Rate Analysis for a Better Future Tomorrow

## Project Flow:

- Define Problem / problem understanding
- Data collection & Extraction from Database
- Data preparation
- Data visualization
- Dashboard
- Story
- Report
- Performance Testing
- Web integration
- project demonstration & Documentation

Sources and constructs, analytical methods and techniques applied, and the ability to describe the use case, application and resulting value. literacy can be demonstrated in multiple ways through speaking, reading and writing. English literacy examples can also include such thing as awareness of the sounds of language, awareness of print and the relationship between letters and sounds

### Overview:-

The world today is a knowledge society; everyone is interested in getting what has been discovered in research, how to use the discoveries and solve day-to-day problem, and how to research, share or communicate the research results for furtherance of knowledge. in the context of education in general, the information society - the era of memorizing information for the sake of passing termly

examinations - is rapidly being overtaken by a knowledge kind of society - an era of participatory knowledge acquisition, retention and application of life issues. Thus, education now-a-days is not what is used to be in time past.

### Purpose:-

Beyond its conventional concept as a set of reading, writing and counting skills, literacy is now understood as a means of identification, understanding, interpretation, creation, and communication is an increasingly digital, text-mediated information-rich and fast-changing world. The uses of literacy Britain was undergoing huge social change, yet his landmark work has lost none of its pertinence and power today.

## LITERATURE SURVEY:-

A literature review is a survey of scholarly sources (such as books, journal articles, and these) related to a specific topic or research question. It is often written as part of a thesis, dissertation, or research paper, in existing knowledge.

- A Description of the publication
- A summary of the publication's main points
- A Discussion of gaps in research
- An evaluation of the publication's contribution to the topic

Examines the development in information literacy in Europe and provides an overview and concepts used and discussed by European authors. Some examples of information literacy initiatives in school and the higher education sector, as well as of institutions and organization projects and conferences concerned with information literacy are given some research initiatives are also introduced. The overview is based on literature review and personal

## Specify the business problem

A business problem can be defined as any hurdle situation, or variation that leads to a difference between the desired objectives and accomplished results. Some problems present themselves, while others require in-depth analysis of the organization.

## Business requirements

Business requirements, also known as stakeholder requirements specifications (SRS), describe the characteristics of a proposed system from the viewpoint of the system's end user like a company. Products, systems, software, and processes are ways of how to deliver, satisfy, or meet business requirements. The purpose of business requirements is to define a project's business need, as well as the criteria of this success.

## Literature Survey (student will write)

In a literary survey, students analyse critically and concisely earlier research and literature related to a particular research problem, and utilize them for their own research purposes. It helps students in understanding the significance. Survey on this topic reveals a wealth of information about the factors that influence literacy rates in India, as well as challenges faced by policymakers in improving

literacy rates across the country.

### Social or Business impact.

Social impact is a significant change that positively addresses a pressing injustice or challenge, such as climate change, human rights, or the education gap. When business and organizations establish social impact initiatives, the difference is felt beyond the communities the efforts or activities serve.

It has a Businesses that invest in literacy programs and supports education initiatives can benefit from a more skilled and innovative workforce, improved competitiveness, and enhanced social responsibility.

Businesses or organizations provide impacts to their consumers and the public all the time, though in different capacities. Social impact however, concentrates on the direct positive consequences these parties offer to society. Social impact can derive from many different sectors and industries.

## Data collection & extraction from Database.

Data collection is the process of gathering data for use in business decision-making, strategic planning, research and other purposes. Data extraction is the process of obtaining raw data from a source and replicating that data somewhere else.

### Collect the dataset.

A dataset is a set or collection of data. This set is normally presented in a tabular pattern. Every column describes a particular variable. And each row corresponds to a given member of a data set as per the given question. This is a part of data management.

### Understand the data.

At its core, data can be defined as units of information, often numeric, collected through observation or registration. These units can stand for real-world entities, such as individuals or objects. The name of file is India-updated literacy

2021.csv

## Data preparation

Data preparation is the process of gathering, combining, structuring and organizing data so it can be used in business intelligence (BI), analytics and data visualization applications.

Data preparation is the process of cleaning and transforming raw data prior to processing and analysis. It is an important step prior to processing and often involves reformatting data, making corrections to data, and combining datasets to enrich data.

### Prepare the data for visualization

#### Identify your data table

The first row of the table should be "headers".  
Add missing headers.

Remove multiple headers and merge them into one.  
Columns data types and detection  
clean any annotations in the column values.

Blank cells and annotations.

All rows must have same amount of columns,  
matching the column headers.

## Data Visualization:-

Data Visualization is the representation of data through use of common graphics, such as charts, plots, infographics, and even animations. These visual displays of information communicate complex data relationships and data-driven insights in a way that is easy and understand.

Data Visualization involves presenting data in graphical or pictorial form which makes the information easy to understand. It helps to explain facts and determine courses of action.

Data Visualization is the process of creating graphical representation of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualization can help people quickly identify patterns, trends and outliers in the data.

## No of unique visualizations:-

The formation of Mental Visual images the act or process of interpreting in visual terms or of putting into visible form. The various types of visualization include Column chart, line Graph, Bar graph, stacked Bar graph, Dual-Axis chart, pie chart, Mekko chart, Bubble chart, scatter chart, and Bullet Graph.

The number of unique visualizations that can be created with a given dataset.

Some common types of visualization that can be used to analyse the literacy include bar charts, line charts, heat maps, scatter plots, pie charts, Maps etc. These visualization can be used to compare performance, track changes over time, show distribution, and relationships between variables, breakdown of revenue and customer demographics, workload, resources allocation and location of hotels.

### Existing problem:-

Despite the fact that the country has made great strides in education, the literacy rate is still very low. According to the latest figures the literacy rate in India is only 74%. This means that more than one quarter of the population is still illiterate.

The only way to eradicate illiteracy is by making resources available to the underprivileged children particularly those in largely remote and inaccessible areas. This helps them in choosing the right direction from the early formative years, hence not getting trapped in the ferocious sequence of illiteracy.

### Proposed Solution:-

We have to remember that illiteracy is the opposite of literacy. The condition of being ignorant; absence of any or enough

training is also illiteracy. A misstep recorded as a hard copy or talking felt to be the attribute of an unskilled or semiliterate individual is literacy.

Literacy is the ability to read, write, speak and listen in a way that lets us communicate effectively and make sense of the world.

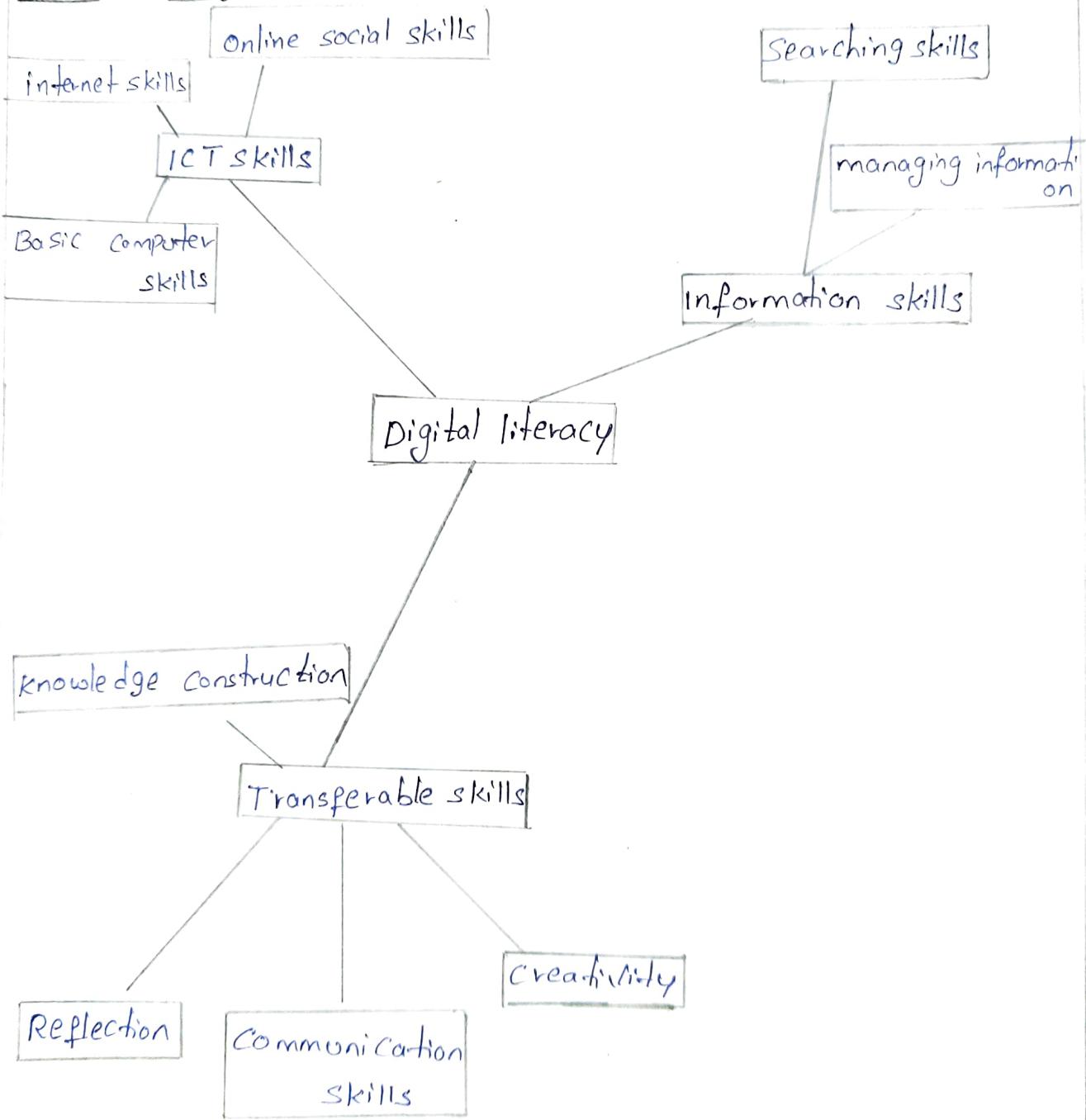
### THEORETICAL ANALYSIS.

The major literacy theories are constructivist, sociocultural, and ecological theories. Constructivist and ecological theories are opposites in that they disagree on how parents and teachers influence learning, while sociocultural theory is something of a middle ground between the two.

A theory is an idealized representation of reality that helps us explain some natural phenomena. It is an idea or thought pattern about a particular subject matter and how it

Should be perceived Campbell & Zaki (2002) contended that theories are like toothbrushes where everyone has their own and no one wants to use anyone's else theory.

### Block diagram:-



## Hardware / software designing:-

- Hardware and software co-design can be defined as meeting system level objectives by exploiting the cooperation between hardware and software through their concurrent design. In traditional co-design, both hardware and software are designed by independent group of experts. Based on the application of engineering principles for developing electro-mechanical equipment's like motion pictures, tape recorders, teaching machines, computers, video-tapes, closed circuit television etc.
- is a by-product of the scientific and technological development of 20th century.
  - stressing upon modern audio-visual equipment's through this hardware approach.
  - hardware approach mechanizes the process of teaching, so that teachers would be able to deal with more students with less expenditure in educating them.

Result:-

In a literacy Because the instructional routines are effective, a sample of results indicate a significant change to their literacy related instructional practices. It leads to better knowledge which means, that a person would be aware of his Rights and Responsibilities. The ultimate goal of literacy instruction is to build a student's comprehension, writing skills, and overall skill in communication. But we feel that no matter what program should always encompass these six basic components: phonemic awareness, phonics, vocabulary, fluency, comprehension and writing. Literacy empowers and liberates people. Beyond its importance as part of the right to literacy. The ultimate goal of literacy instruction is to build a student's comprehension.

## ADVANTAGES & DISADVANTAGES

### ADVANTAGES:-

literacy builds self-esteem and overall quality of life. if nothing else, literacy builds self-esteem. Readers who struggle are more likely to have difficulty expressing themselves, even verbally. This can lead to anxiety, depression, or other issue that impact an overall quality of life makes you able make your own decision and gives the concept of freedom to you

- literacy lifts individuals out of poverty...
- literacy improves the development of the wider community...
- literacy reduces infant mortality rates...
- literacy empowers women and girls...
- literacy positively impact economic growth beyond the local community.
- literacy promotes "lifelong learning" and builds skills
- literacy improves the economy and creates jobs.

## DISADVANTAGES:-

In societies where literacy rates are low illiterate individuals can feel excluded from various aspects of life, including education, employment, and civic engagement. In the digital age, digital literacy is becoming increasingly important. Requires time and resources: problem solving often requires a significant amount of time and resources to gather information, analyze data and develop possible solutions. This can be a disadvantage for individuals and organizations that are limited in their resources.

- Takes no notice of other skills the people may have which are equally valuable for example a good understanding of farming techniques
- when used on its own doesn't tell us whether the figure is a consequence of too few schools or the fact that children are having to work.

## Dashboard:-

click My Dashboards > create New Dashboard to open a new dashboard. Enter a descriptive name in the Name field. This name is used in the list of dashboards in the menu. to display a list of available reports. on the cognos Analytics home page, tap the new icon at the bottom of the window and click on Dashboard. 2- you see predefined templates that contain grid lines for easy arrangement and alignment of visualizations and other elements in a dashboard.

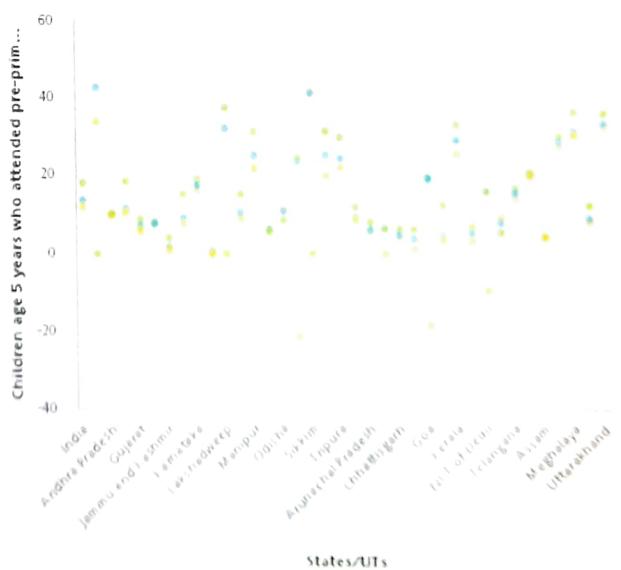
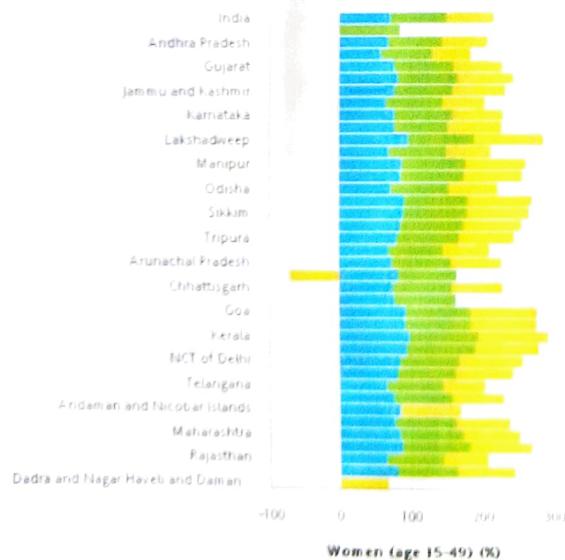
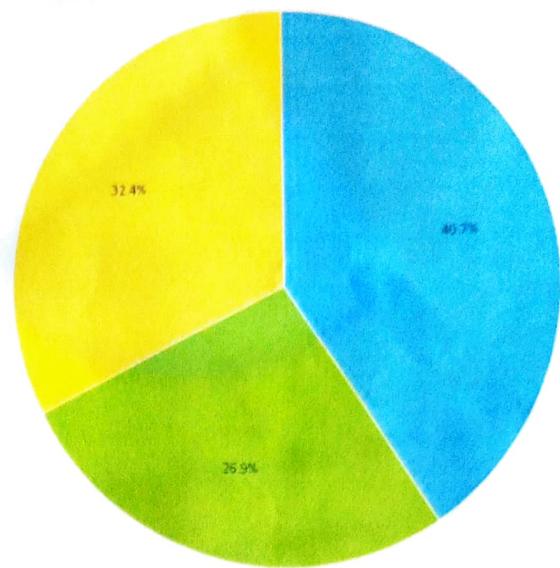
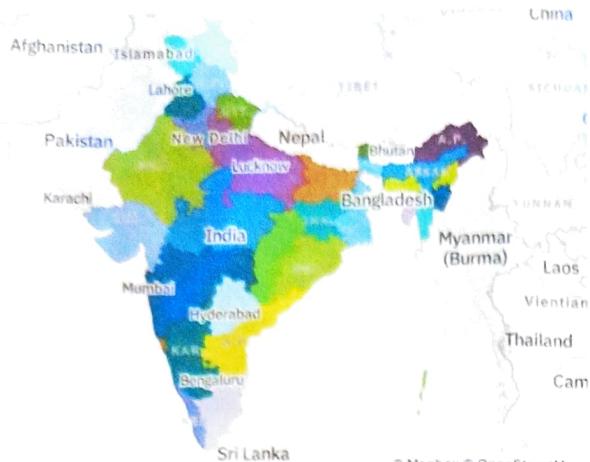
- Decide on the goal of creating dashboards
- Identify your Data sources.
- choose the Right chart type
- Define what Metrics you want to track
- pick your colours when building dashboards
- Ensure that your Dashboards are Mobile -optimized
- onboard your Team members.



## REPORT:-

First we login in ibm account and uploaded the data report in datamoduler and do Sale my content coming to main bar new report to create first visualization to select report choose the temperature

- in the log in to the ibm account.
- click the reports tab.
- click actions
- click create
- This open up the visualization
- choose the report schedule and click next
- choose the layout of the report by 2x2 and click next.
- enter a report title in the text box.
- in the chart Type drop-down menu, select log sources.
- This brings you to a new page, under log sources, click the check box that say All log sources
- under data options set the order by the option to status, and Ascending this report



## STORY:-

Stories are similar to dashboards because they also use visualization to share your insights. Stories differ from dashboards because they provide an over-time narrative and can convey a conclusion or recommendation.

→ click....

→ select a template....

→ Add visualization to your view in one or more of the following way

→ limit the data that is displayed by filtering in one or more of the following ways....

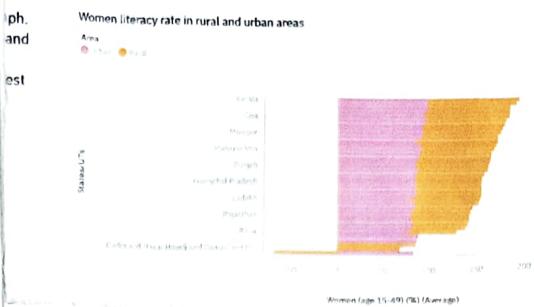
→ Enhance your view and draw attention to visualization by adding media, web pages, images, shapes and text.

→ personalize your view by changing the theme. You can choose from default, light or dark themes. You can also customize specific visualization properties such as fill and border colour, and capacity.

A Literacy rate Analysis

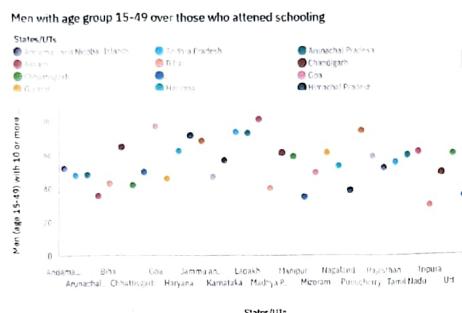


#### Women literacy rate in rural and urban areas



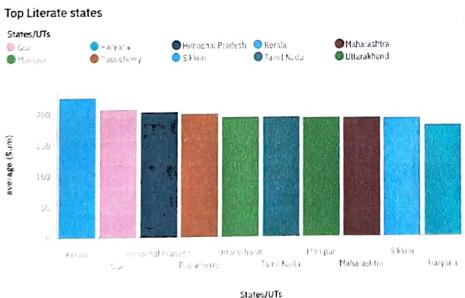
Men with age group 15-49 over those who attended schooling

- This is a Line graph.
  - It represents men with age group 15-49 over those who attend schooling.
  - It represents literate men over different states



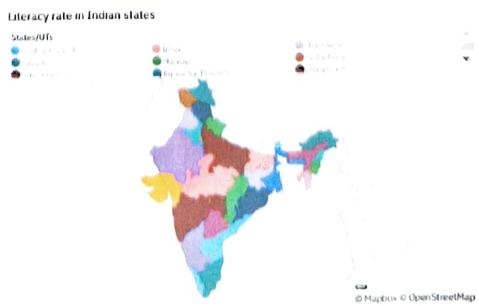
## Top Literate states

- This is a column chart.
  - It represents top 10 literate states in India.
  - Kerala is the highest literate state.



## Literacy rate in Indian states

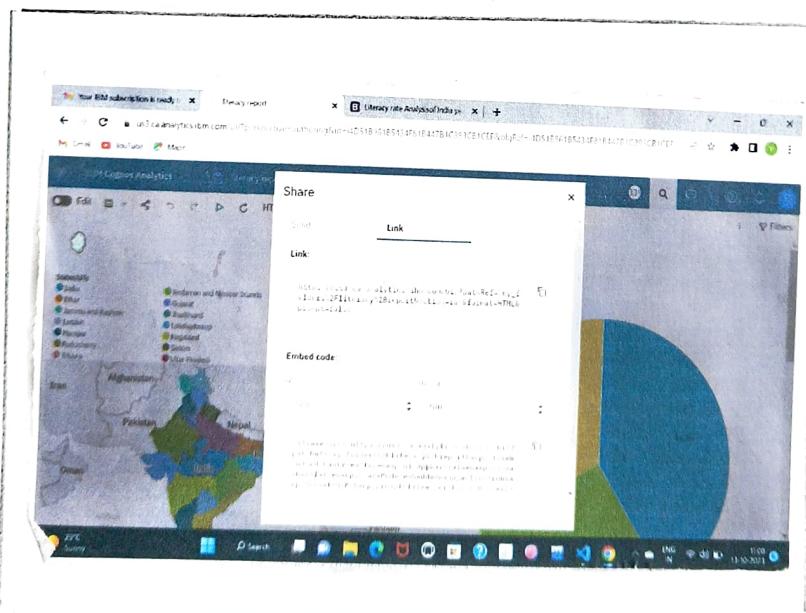
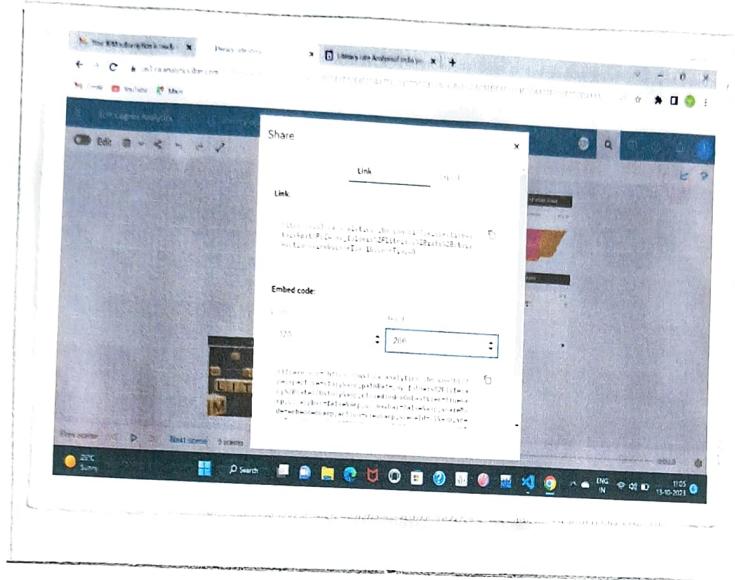
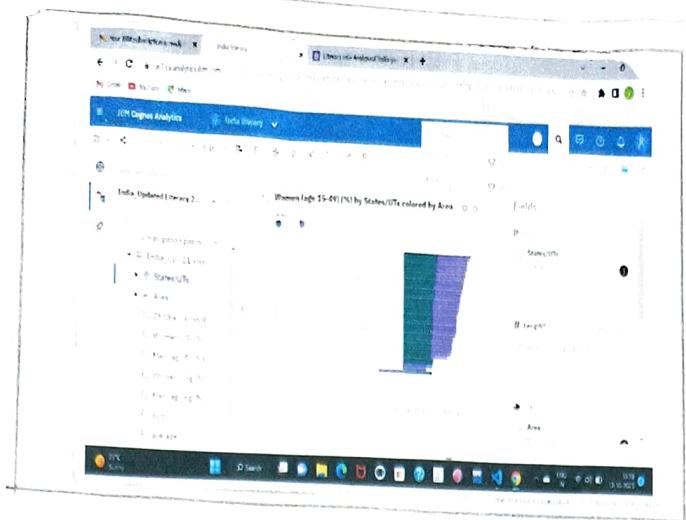
- This is a map.
  - It represents overall literacy rate in India.

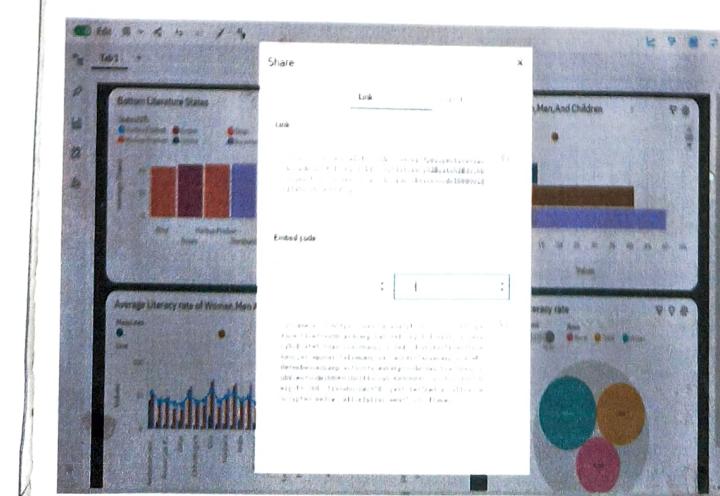
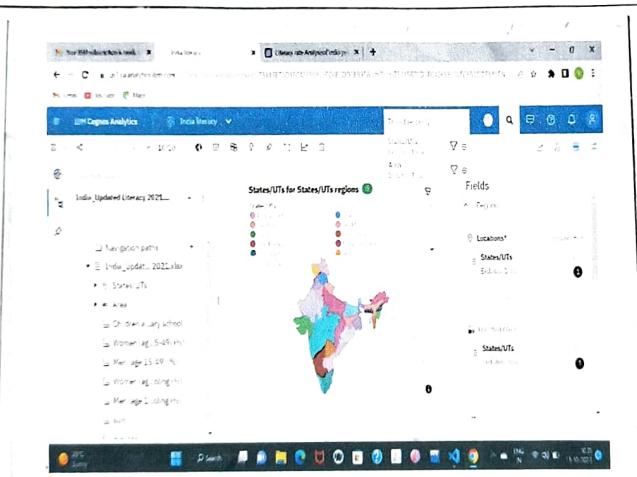
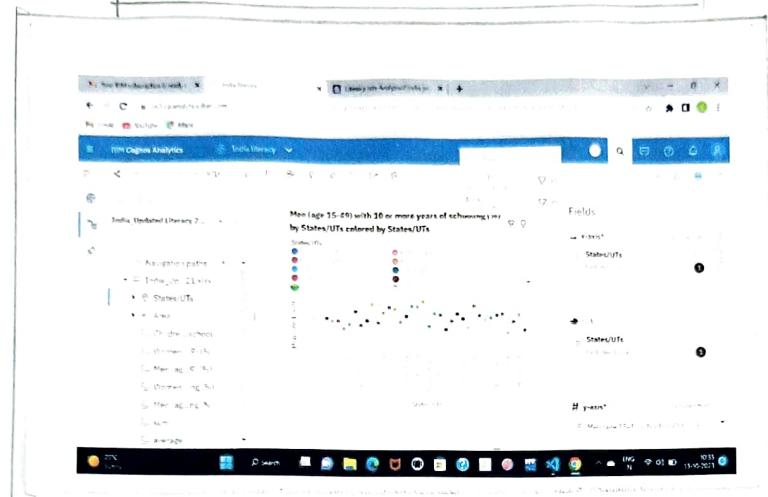
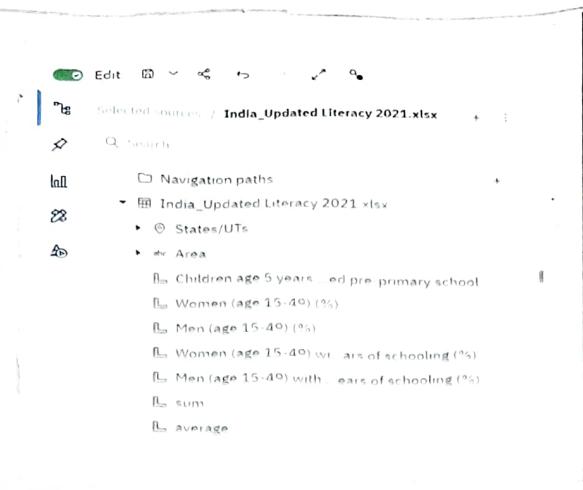


## CONCLUSION :-

To conclude we can say that literacy is the stepping stone towards achieving education. Hence literacy is a part of education. Hence, literacy is a part of education. literacy is an essential parameter to measure the education level in the nation.

information literacy equips students with the skills to access the reliability, objectivity, and bias of sources. By analyzing the authority, currency, relevance, and accuracy of information students can make well informed judgments and avoid falling prey to misinformation. literacy is a strong weapon which can root out the social issues like dowry, corruption and child labour. literate population can contribute manifold in the economic and social development of a nation. if india wants to be a development and powerful nation, the literacy is the key.





## 8. Future scope:

Data analytics and data analytics bootcamp is a huge industry and is predicted to keep growing. It is expected to touch usd 11.87 billion by 2026. As it keeps growing at a steady pace, these industry will disrupt the market causing a great shift in it and bringing several job opportunities with it. Is data analysts a good career? The average salary for an analyst in the United States is just under \$-151,000 per year. The field is growing rapidly with a projected 23 percent increase in job opportunities from 2021-2031, far more than the average 5 percent for any other industry. Companies such as Amazon, Facebook, and Google are actively seeking data analysts. This is a promising career choice with great potential for growth and development.