

Empowering The Future: A Literacy Rate Analysis For A Better Future Tomorrow (Only For Engg)

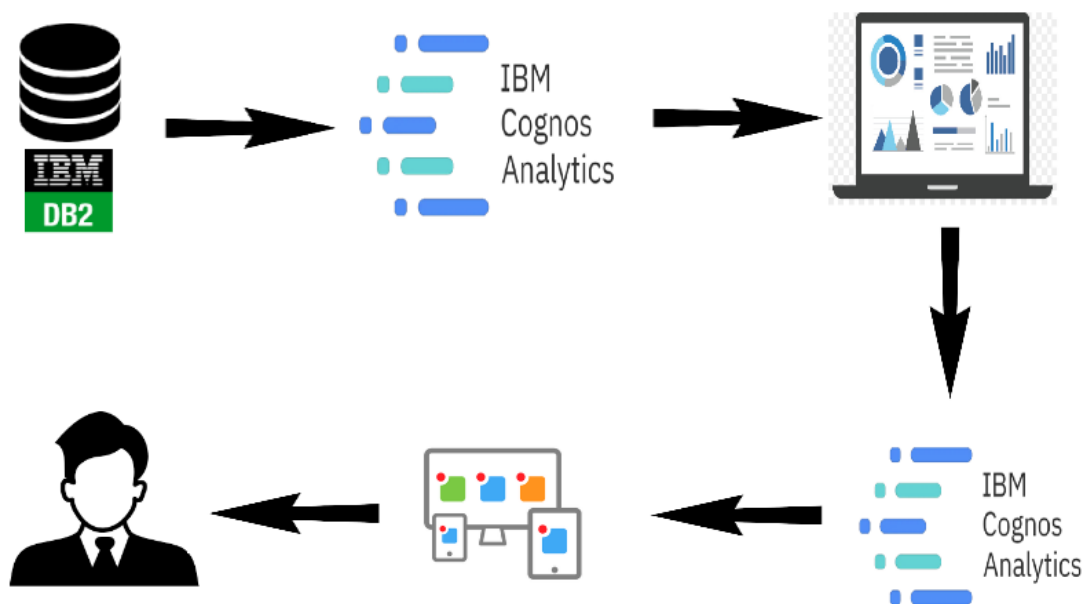
To know development in a society, Literacy is another proper indicator of economic development. For purpose of census, a person in age limit of seven and above, who can both write and read with understanding in any of the language is considered as a literate in India. Literacy plays a major role in the economic development of a nation. Although India has raised its current literacy rate of 74.04% (2011) from 12% at the time of Independence in 1947, its still lag behind the world average literacy rate of 84%. Compared with other nations, Republic of India has the largest illiterate population.

India Literacy Rate (According to 2011 Census)	
Overall	74.04%
Male	82.14%
Female	65.46%

Majority of states in India has shown majors signs of improvement in their overall illiteracy rate thus contributing towards a literate nation

Here we are analysing literacy rate in India for 2021. This dataset contains a record Literacy rate each state of India, here we are going to analyse State wise, Region wise and Overall Literacy rate among Children, Women and Men in India in India.

Technical Architecture:



Problem Understanding:

Analyzing literacy rate is crucial for various reasons, as it provides valuable insights into the educational landscape and social development of a population or region. Literacy rate analysis helps assess the effectiveness of educational systems and policies. It allows policymakers and educators to identify strengths and weaknesses in the education system and make data-driven decisions to improve it. Monitoring Progress: Regular analysis of literacy rates allows for monitoring progress over time. It helps measure the impact of various initiatives and interventions, allowing stakeholders to adjust their strategies if needed

Business Problem:

Workforce Productivity: In a business setting, low literacy levels among employees can hinder productivity. Employees with limited literacy skills may struggle to understand written instructions, safety protocols, or training materials, leading to errors, accidents, and inefficiencies in the workplace.

Online Business and E-commerce: In the digital age, businesses heavily rely on online platforms for sales and communication. Low literacy rates can impact online engagement, e-commerce transactions, and customer support interactions.

Training and Development: Employee training and professional development are critical for a company's growth. Limited literacy skills can impede the effectiveness of training programs

Business Expansion and Global Markets: Companies aiming to expand into new markets or operate internationally need to understand the literacy levels and communication preferences of their target audiences in different regions.

Literature Survey:

Demographic Information:

- a. Age: ☐ years
- b. Gender: ☐ Male ☐ Female ☐ Non-binary ☐ Prefer not to say
- c. Educational Background:
 - ☐ No formal education
 - ☐ Some primary education
 - ☐ Completed primary education
 - ☐ Some secondary education
 - ☐ Completed secondary education
 - ☐ Vocational training
 - ☐ Some college/tertiary education
 - ☐ Completed college/tertiary education
 - ☐ Graduate or post-graduate degree

Literacy Assessment:

- a. Can you read and understand a simple sentence in your native language?
 - ☐ Yes
 - ☐ No
- b. Can you write a simple sentence in your native language?
 - ☐ Yes
 - ☐ No
- c. How confident do you feel in your ability to read and understand complex written materials (e.g., newspapers, official documents)?
 - ☐ Very confident
 - ☐ Confident
 - ☐ Neutral
 - ☐ Not confident
 - ☐ Not at all confident

Social or Business Impact:

Education Equity: It helps identify disparities in educational opportunities and access to quality education across different demographic groups. This information can guide policymakers and educators in implementing targeted interventions to promote education equity, ensuring that all individuals have equal opportunities to learn and improve their literacy skills.

Poverty Reduction: Literacy is a key driver of economic empowerment. Higher literacy rates enable individuals to access better job opportunities, leading to increased income and poverty reduction. Analyzing literacy rates can inform poverty alleviation strategies and social programs aimed at improving livelihoods.

Empowerment and Inclusion: Literate individuals are better equipped to participate in societal and political processes, express their opinions, and advocate for their rights. Increasing literacy rates empowers marginalized communities and promotes social inclusion and active citizenship.

Data Collection and Extraction From Database:

States/UTs Area		Children a	Women(15-49)	Men(15-49)	Women (a	Men(15-49)	10 yr Schooling
India	Urban	18.1	83	89.6	56.3		62.1
India	Rural	12	65.9	81.5	33.7		43.7
India	Total	13.6	71.5	84.4	41		50.2
Andaman ;	Urban	0	86.6	89.3	59.7		59.4
Andaman ;	Rural	33.7	85.6	94.7	47.6		47.7
Andaman ;	Total	42.6	86	92.5	52.5		52.3
Andhra Pr;	Urban	10.2	79	86.4	51.2		59.5
Andhra Pr;	Rural	9.8	63.8	76.3	34.3		42.5
Andhra Pr;	Total	9.9	68.6	79.5	39.6		47.9
Arunachal	Urban	8	84.7	92.1	55.4		64.1
Arunachal	Rural	5.5	71.6	85.6	36.2		45
Arunachal	Total	5.9	73.8	86.7	39.4		48.2
Assam	Urban	4.1	87.5	92.6	49		53.2
Assam	Rural	4.4	75.4	82.8	26.2		32.2
Assam	Total	4.4	77.2	84.3	29.6		35.5
Bihar	Urban	18.5	74.9	84	48		57.1
Bihar	Rural	10.5	54.5	77	25.2		38.9
Bihar	Total	11.5	57.8	78.5	28.8		42.8
Chandigarh	Urban	6.4	83.1	94.8	59.9		64.5
Chandigarh	Rural	0	-69.2	0	-30.8		0
Chandigarh	Total	6.3	83	94.8	59.6		64.5
Chhattisga	Urban	6.3	85.3	90.3	52.4		52.2
Chhattisga	Rural	4.2	71.3	86.3	32.1		38.1
Chhattisga	Total	4.6	74.6	87.3	36.9		41.5
Dadra and	Urban	6.2	87.7	95.4	48.6		58.8
Dadra and	Rural	1.3	67.9	91.6	24.2		40.7
Dadra and	Total	3.7	77.3	93.4	35.8		49.4
Goa	Urban	19.5	92.6	94.9	73		75
Goa	Rural	-18.2	93.4	98.5	69.3		79.4
Goa	Total	19	93	96.3	71.5		76.6
Gujarat	Urban	8.7	86.8	95.4	47.9		56.9
Gujarat	Rural	5.8	69	87.5	23.6		36.9
Gujarat	Total	6.9	76.5	90.9	33.8		45.6
Haryana	Urban	8.1	87.4	94.5	60.1		65
Haryana	Rural	7.4	78.8	93	44.1		60.8
Haryana	Total	7.6	81.7	93.5	49.5		62.2
Himachal P	Urban	12.3	95	91.7	79.8		78.7

Preparing Data for Visualization:

https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FLITERACYNEWMODULE

Data Visualization:

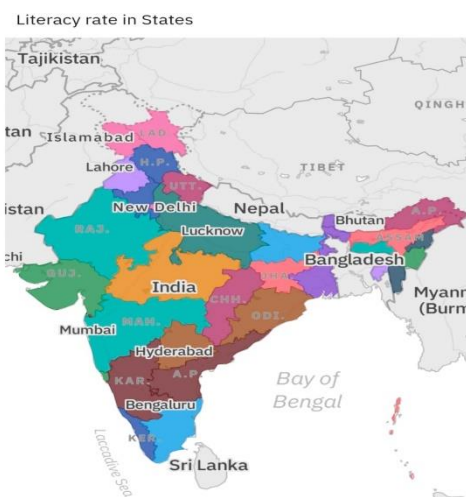
1.Overall Literacy Rate:

Overall Literacy Rate



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FOverall%2BLiteracy%2BRate&action=view&mode=dashboard&subView=model000000189ba636bfff_00000002

2.Literacy Rate in States:

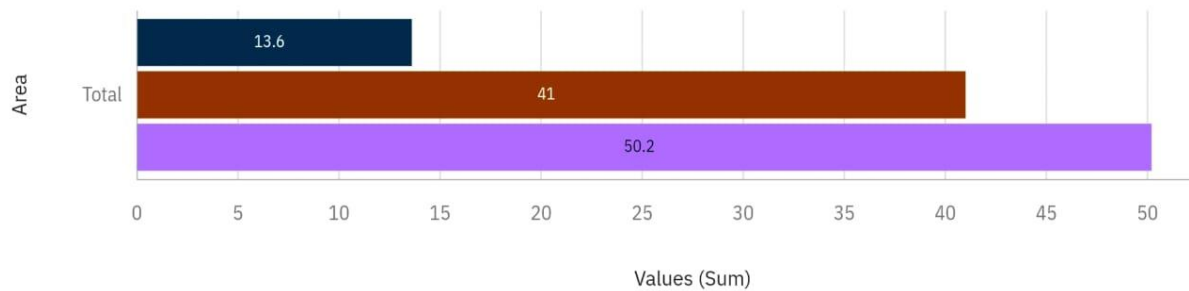


https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FLiteracy%2BRate%2Bin%2BStates&action=view&mode=dashboard&subView=model000000189ba636bfff_00000002

3.Literacy Rate of Women,Men and Children:

Literacy Rate of Women,Men and Children

Measures
● Children age 5 years who attende... ● Women (age 15-49) with 10 or m... ● Men (age 15-49) with 10 or more ...

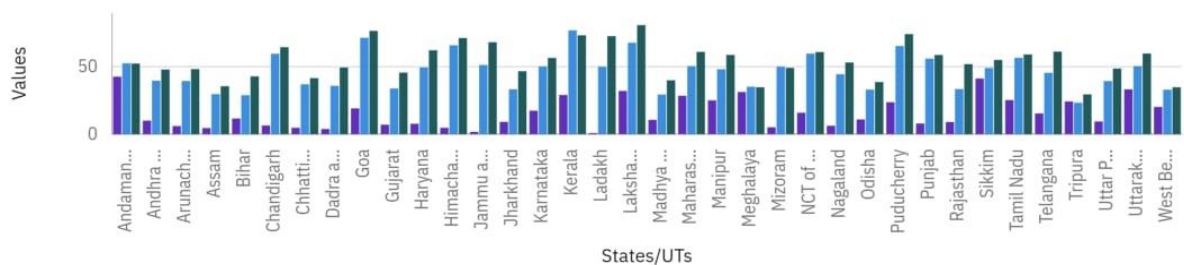


https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FLiteracy%2BRate%2Bof%2BMen%252Cwomen%252Cchildren&action=view&mode=dashboard&subView=model00000189ba636bff_00000002

4.Average Literacy Rate of Women,Men and Children:

Literacy Rate of Women,Men and Children in States

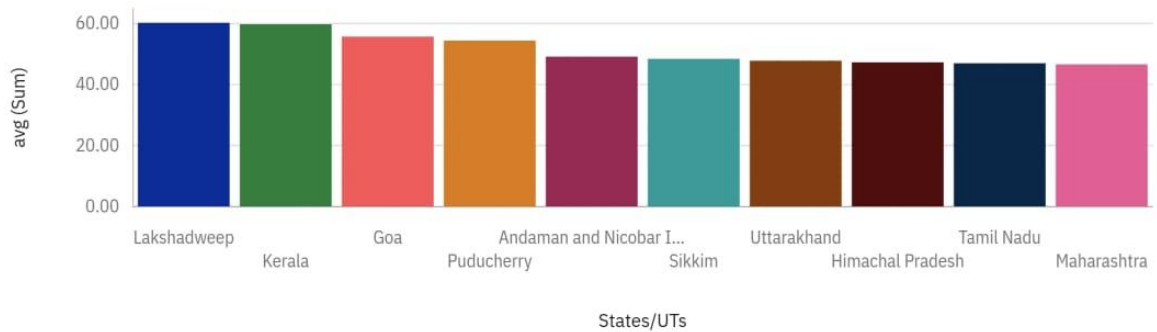
Measures
● Children age 5 years who attende... ● Women (age 15-49) with 10 or m... ● Men (age 15-49) with 10 or more ...



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAverage%2Bliteracy%2BRate%2Bof%2BMen...&action=view&mode=dashboard&subView=model00000189bab258a5_00000000

5.Top Literate States:

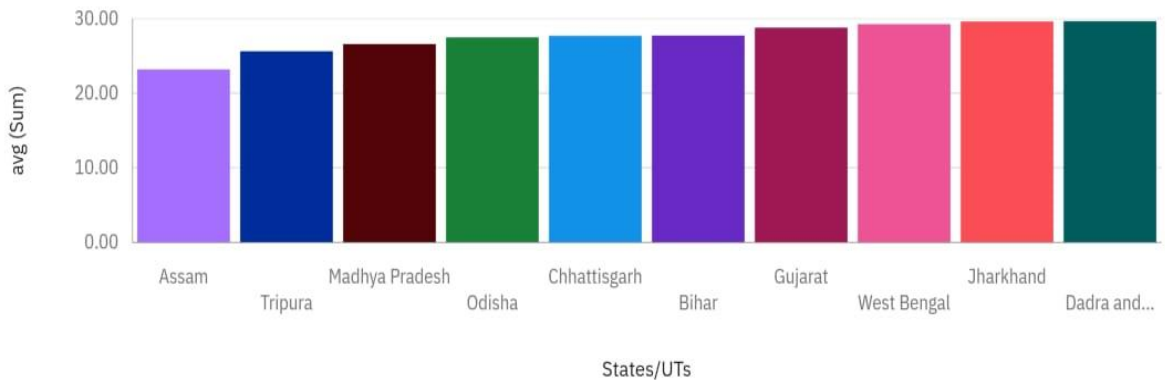
Top 10 Literate States



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAverage%2Bliteracy%2Brate%2Bof%2Bmen...&action=view&mode=dashboard&subView=model00000189bab258a5_00000000

6.Bottom Literate States:

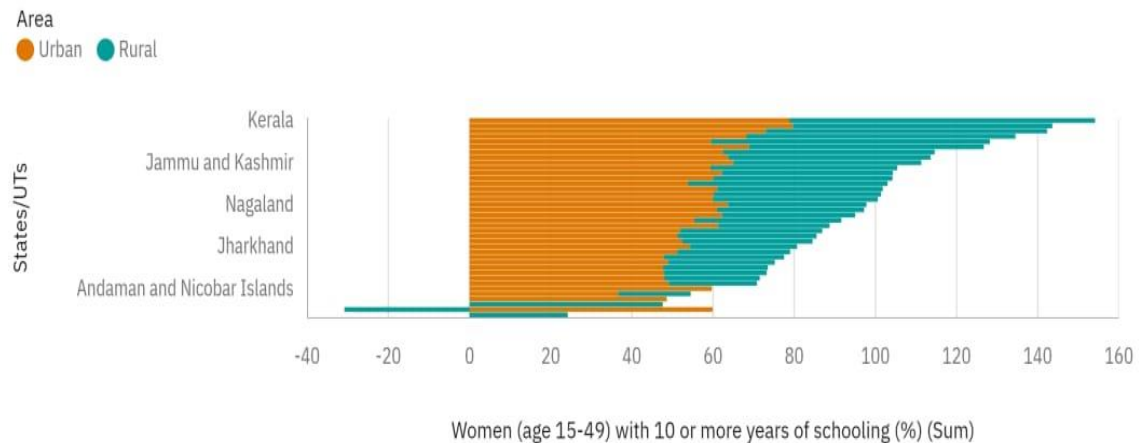
Bottom Literate States



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAverage%2Bliteracy%2Brate%2Bof%2Bmen...&action=view&mode=dashboard&subView=model00000189bab258a5_00000000

7. Women Literacy Rate in Rural and Urban Area:

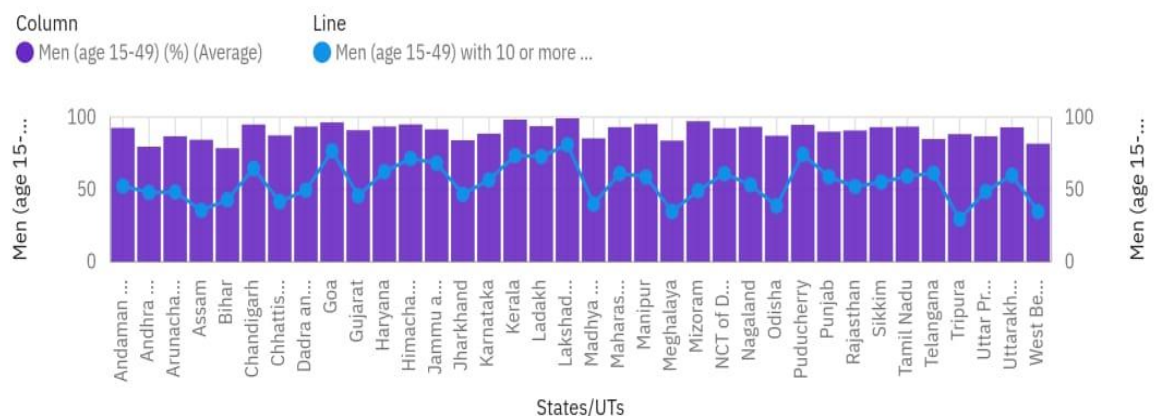
Women Literacy Rate in Rural and Urban Area



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAverage%2Bliteracy%2Brate%2Bof%2Bmen...&action=view&mode=dashboard&subView=model00000189bab258a5_00000000

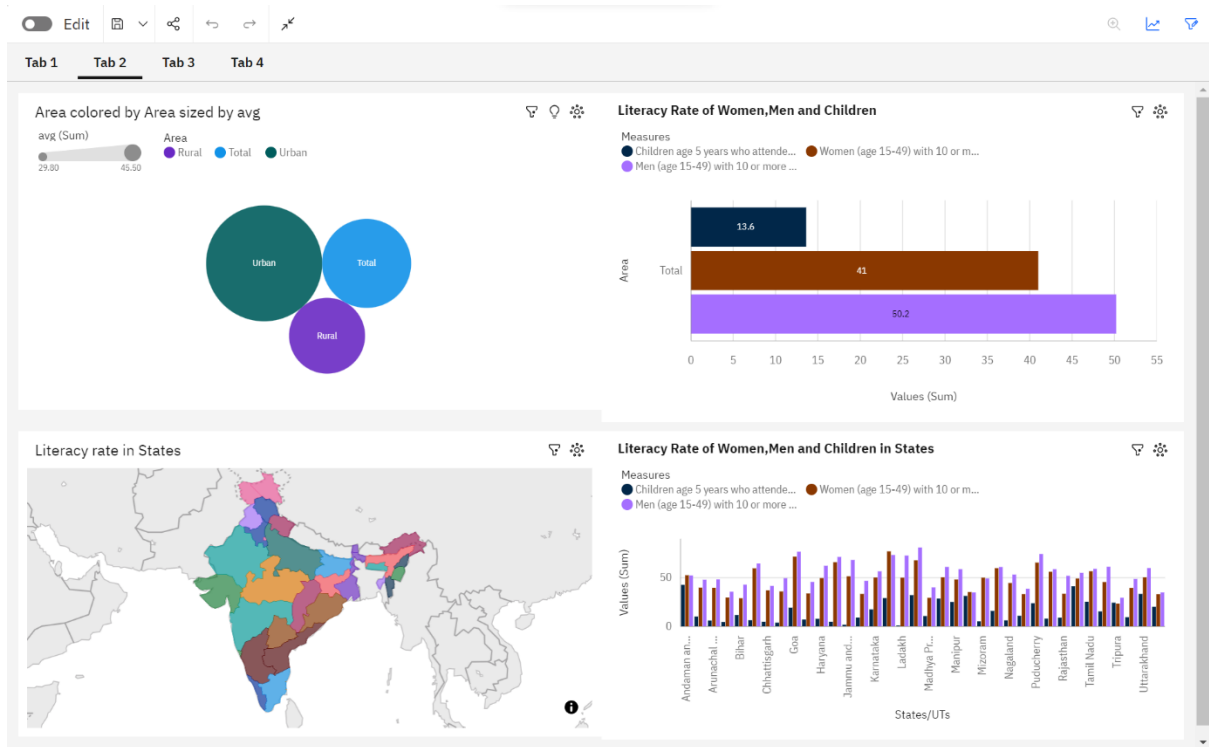
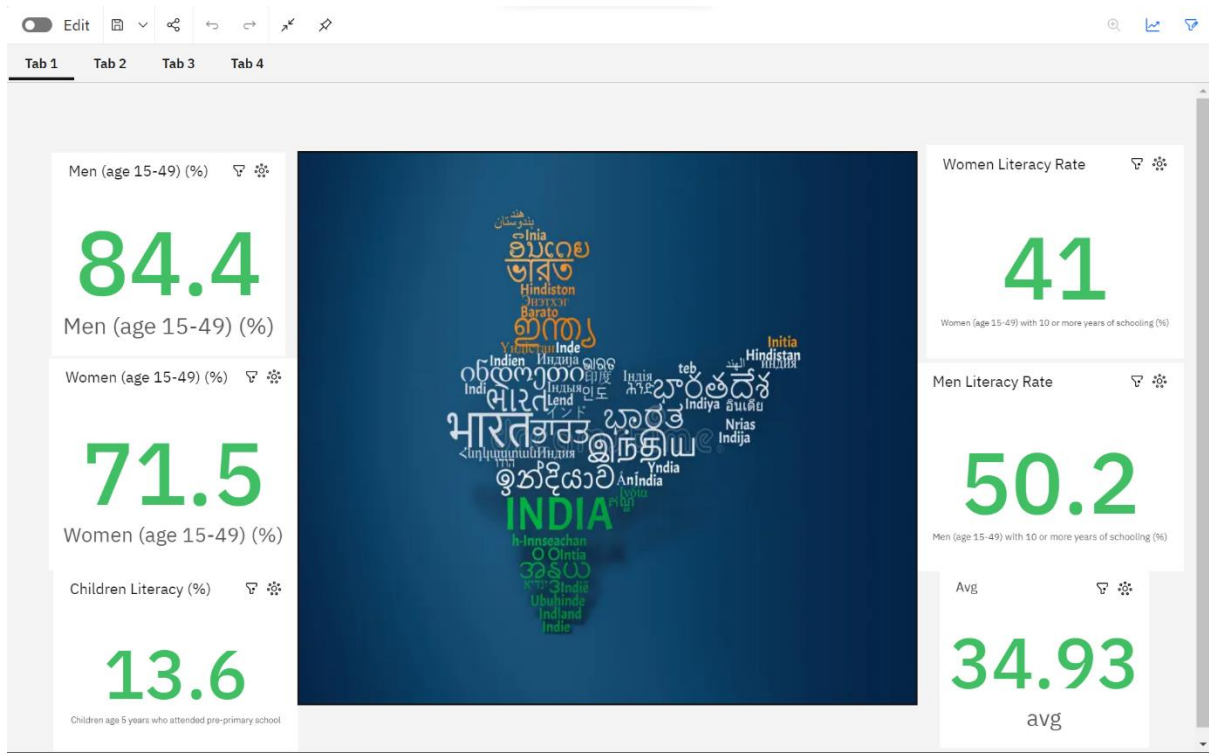
8. Men with Age 15-49 who Attended Schooling more than 10 Years:

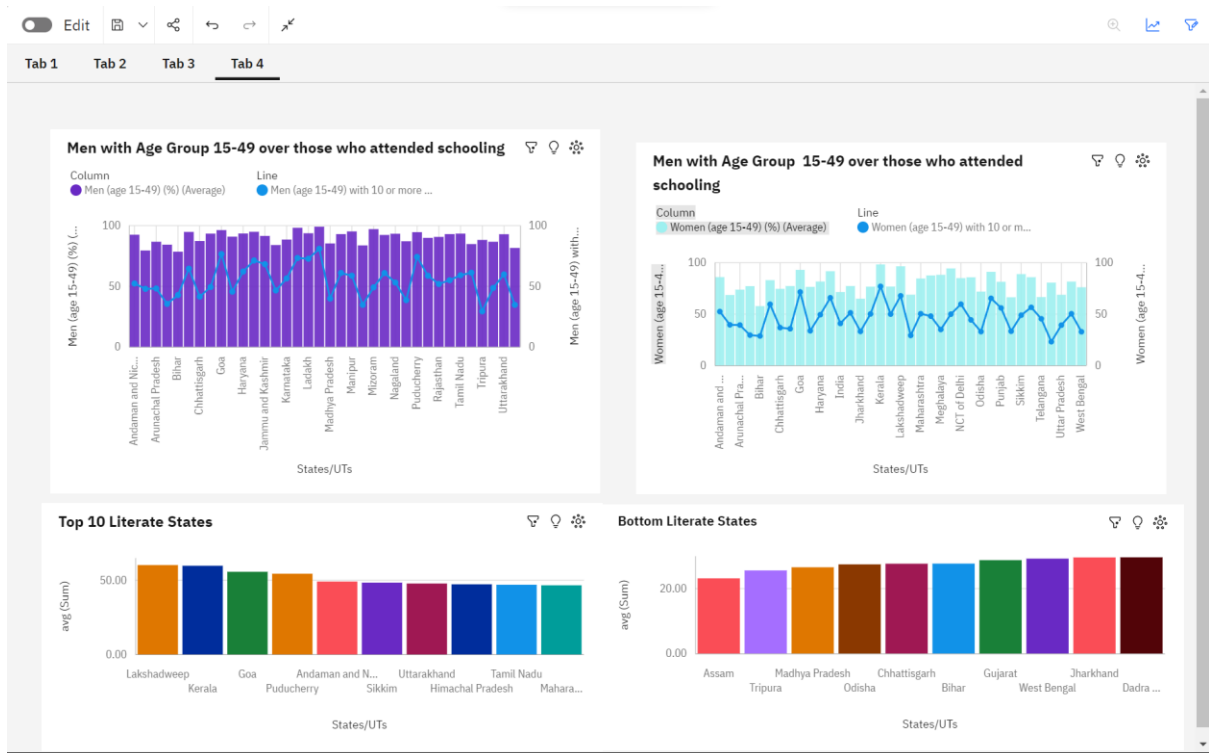
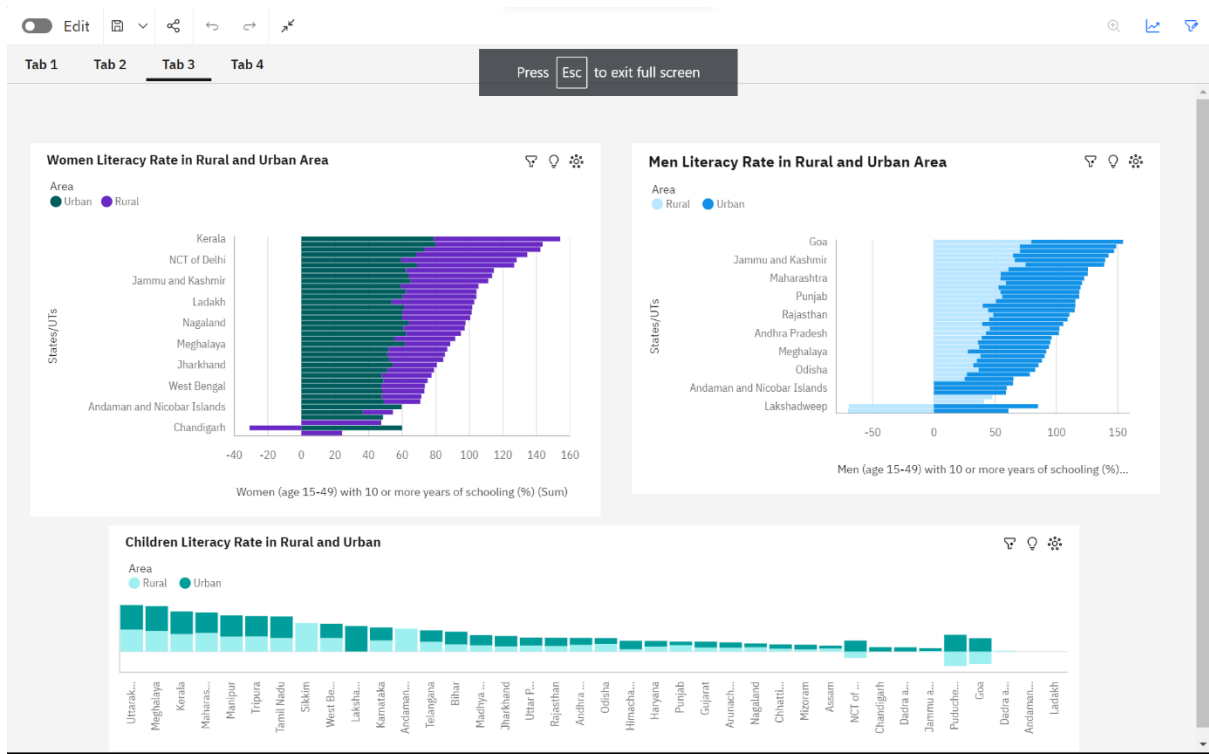
Men with Age Group 15-49 over those who attended schooling



https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FAverage%2Bliteracy%2Brate%2Bof%2Bmen...&action=view&mode=dashboard&subView=model00000189bab258a5_00000000

Dashboard:





Link :

https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FNew%2Bdashboard%2528Literacy%2529&action=view&mode=dashboard

Story:

Edit

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

Census of India pegged average literacy rate to be 73% in 2011

Literacy in India is a key for social-economic progress

Literacy involves learning enabling individual to achieve their goals to develop their knowledge and potential

Prev scene

Next scene

Scene 1 of 10

0:00.0

0:05.0

Edit

Press Esc to exit full screen

Overall India Literacy Rate

Literacy rate in States

Literacy Rate of Women, Men and Children

Measures

- Children age 5 years who attende...
- Women (age 15-49) with 10 or m...
- Men (age 15-49) with 10 or more ...

Total

13.4

41

50.2

0 5 10 15 20 25 30 35 40 45 50 55

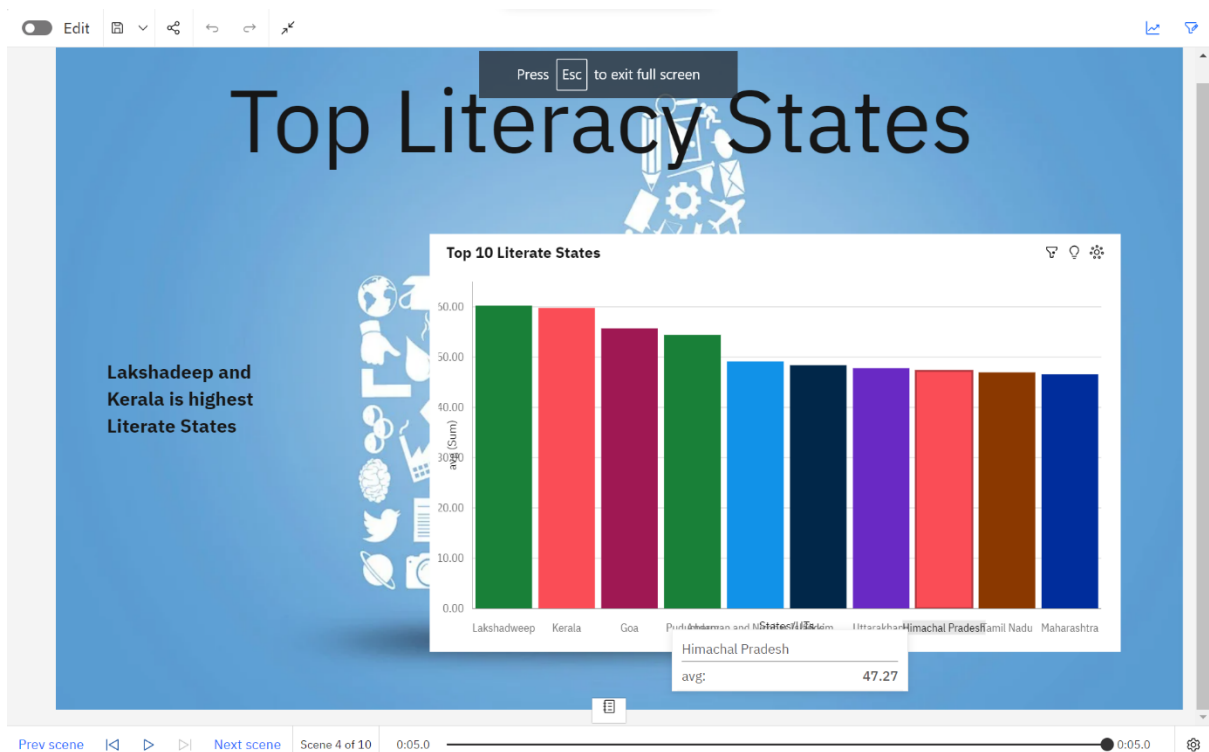
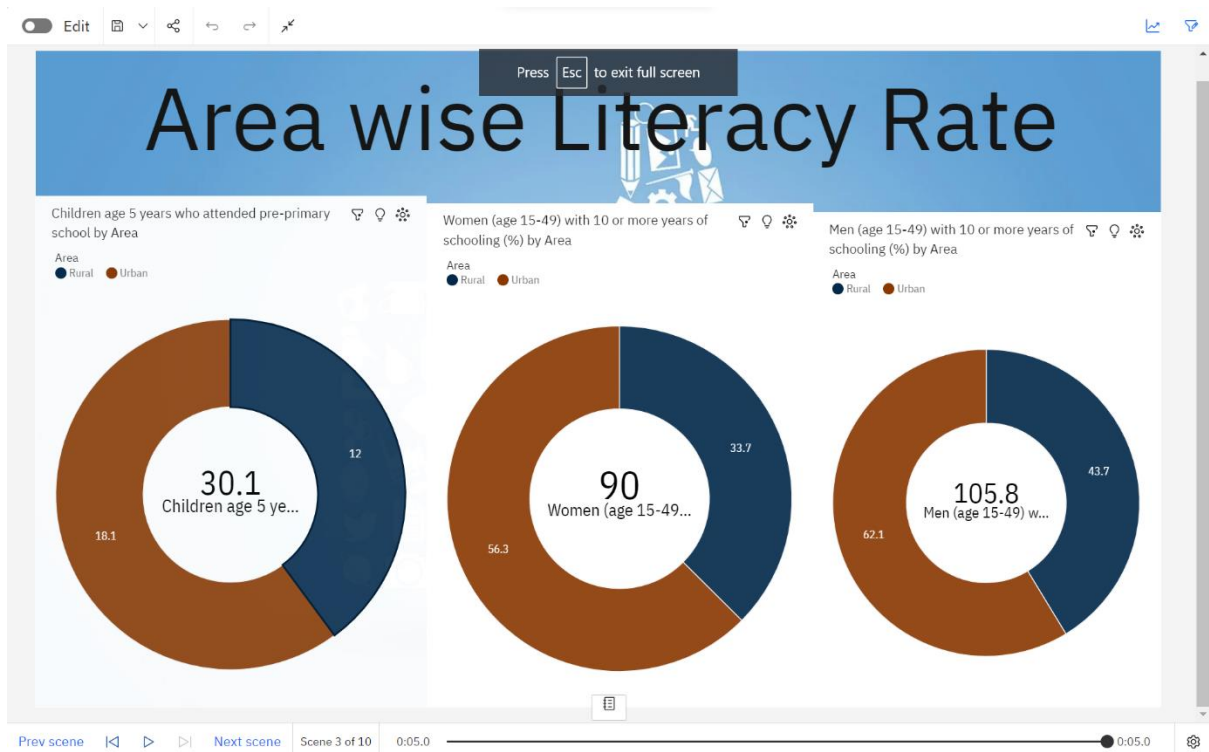
25 values

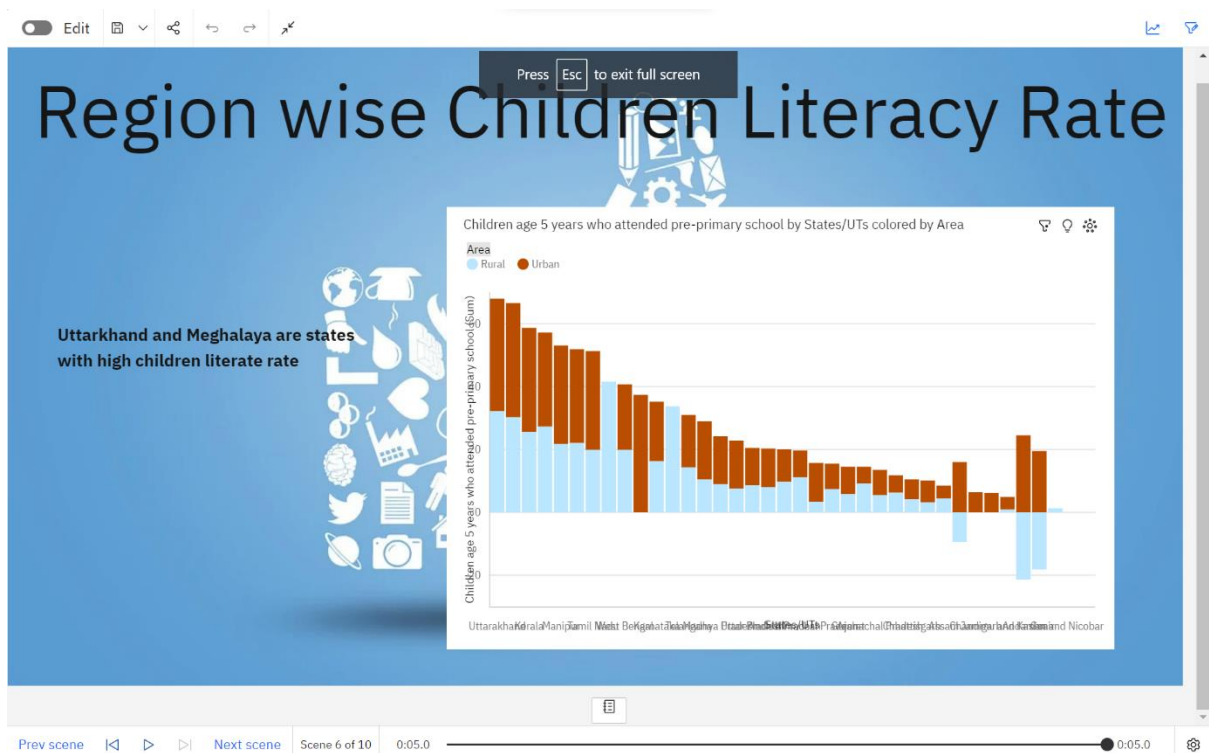
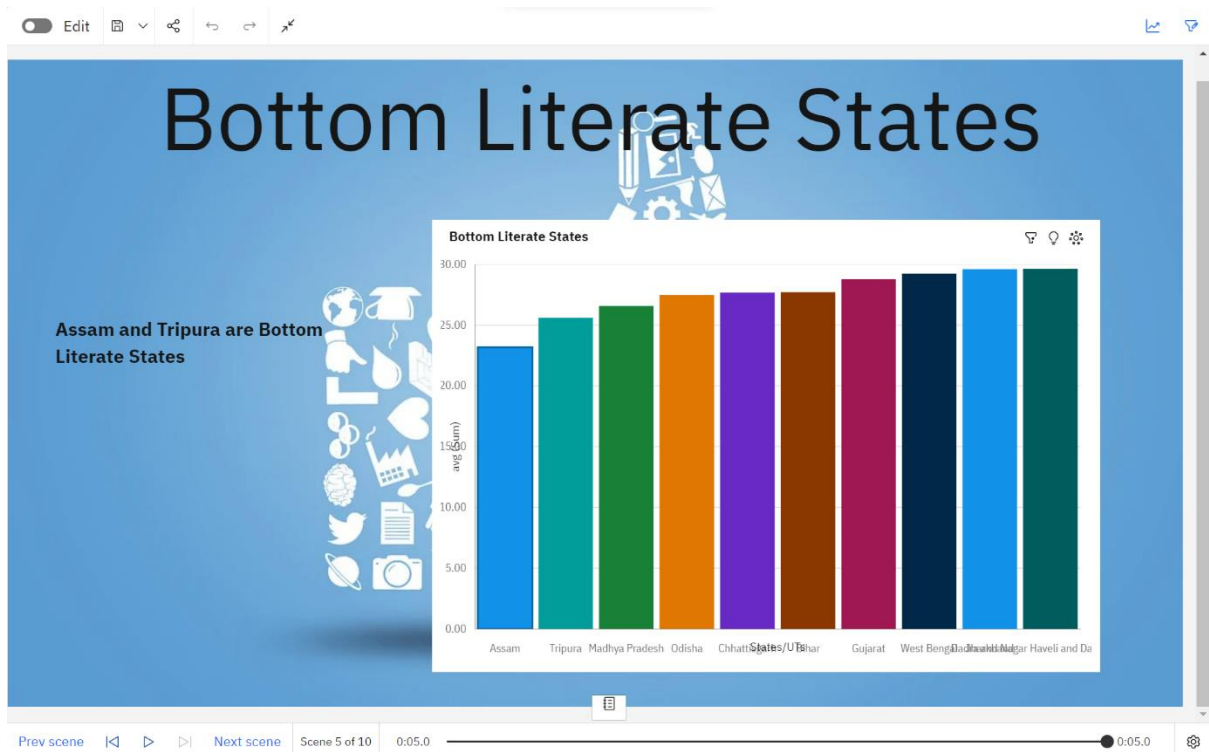
Prev scene

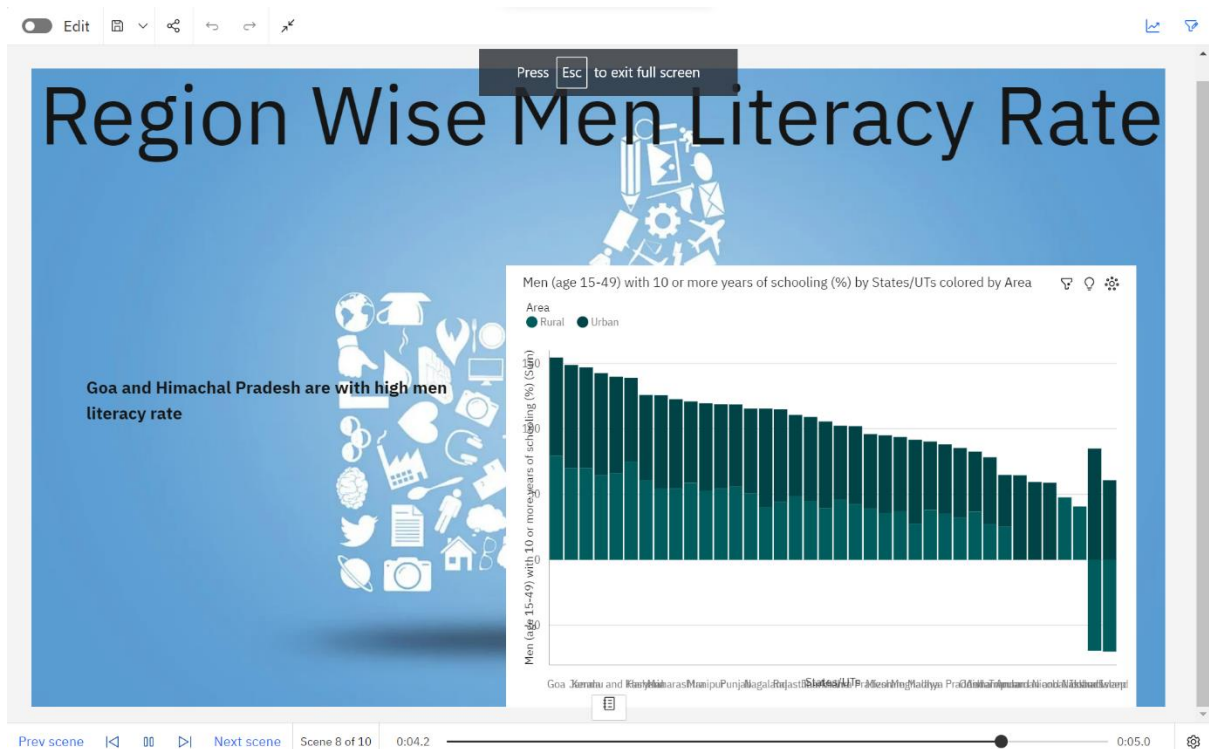
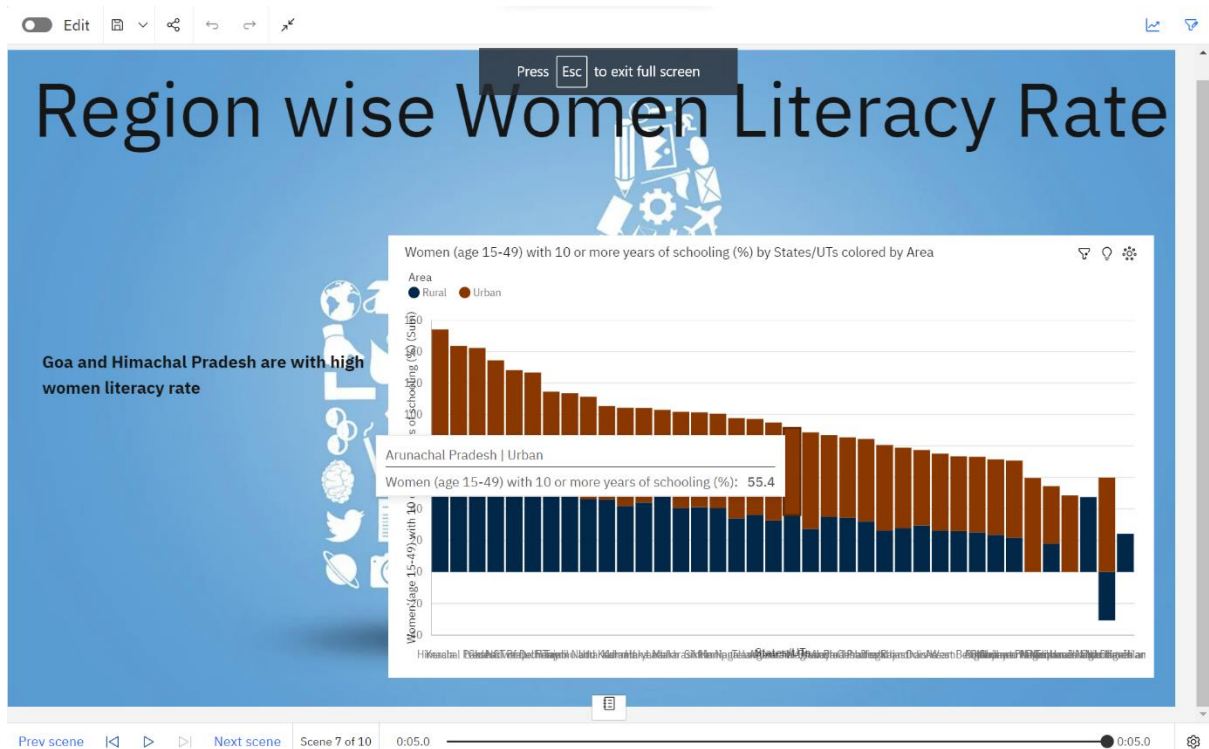
Next scene

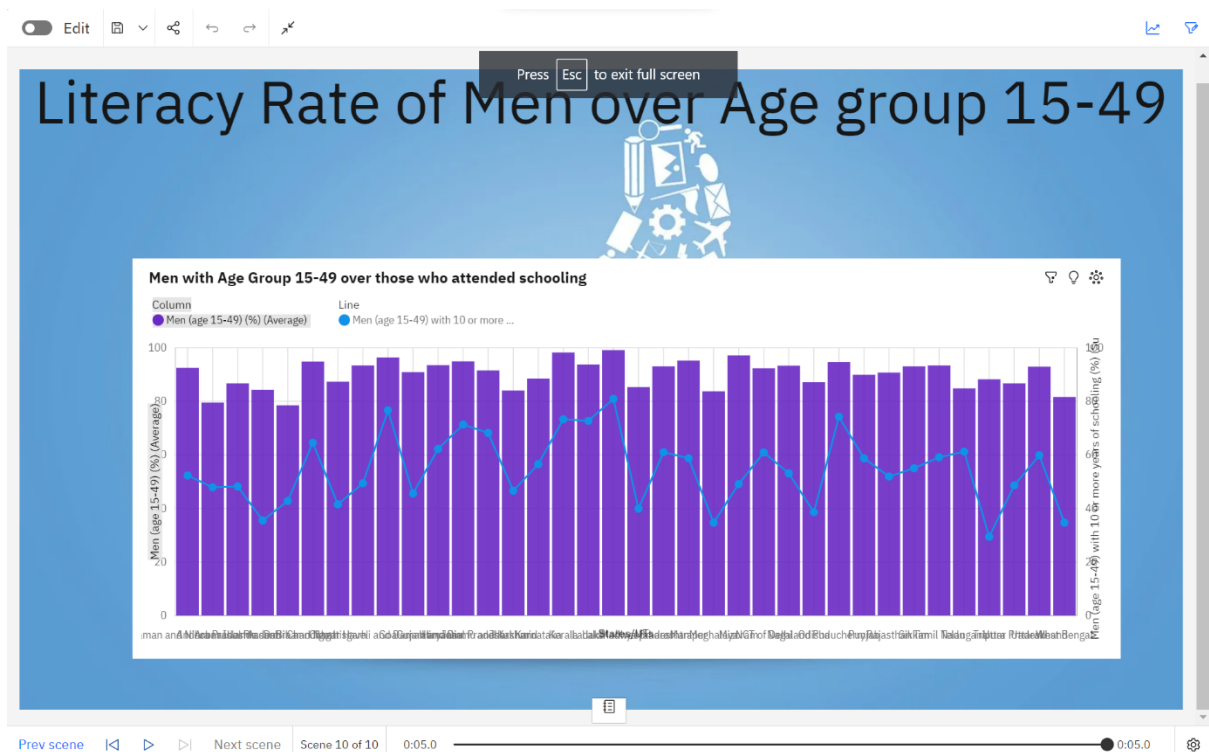
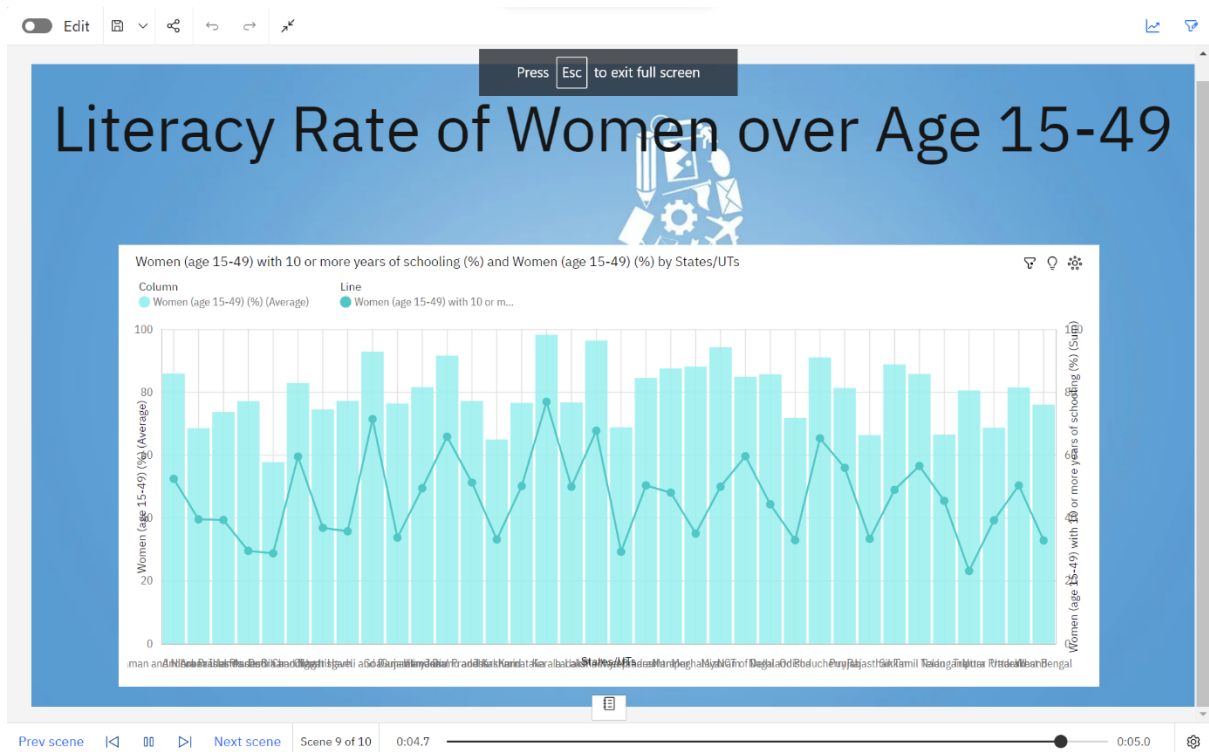
Scene 2 of 10

0:05.0





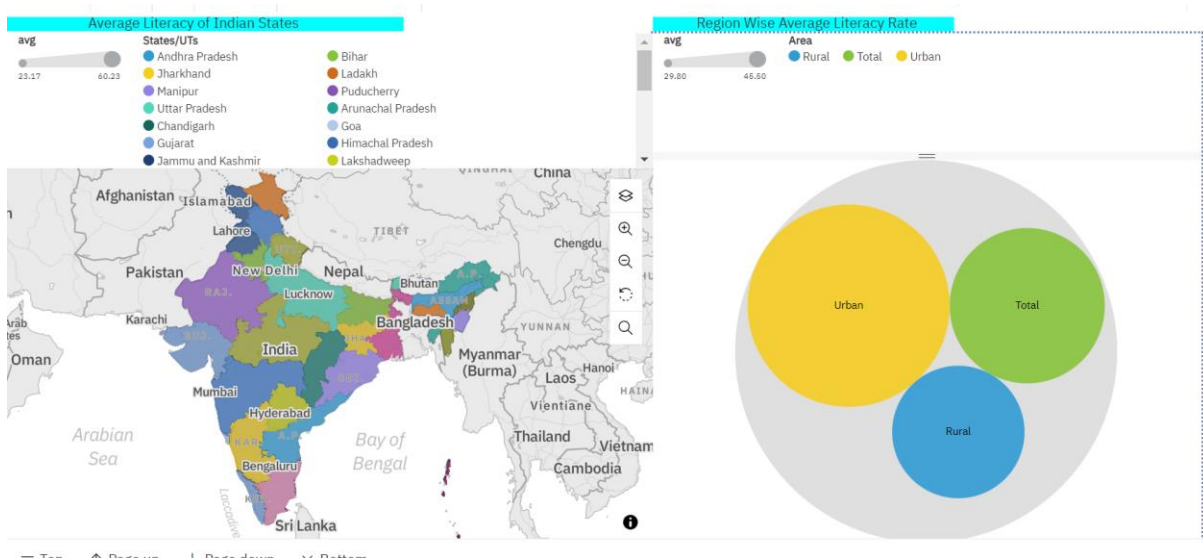
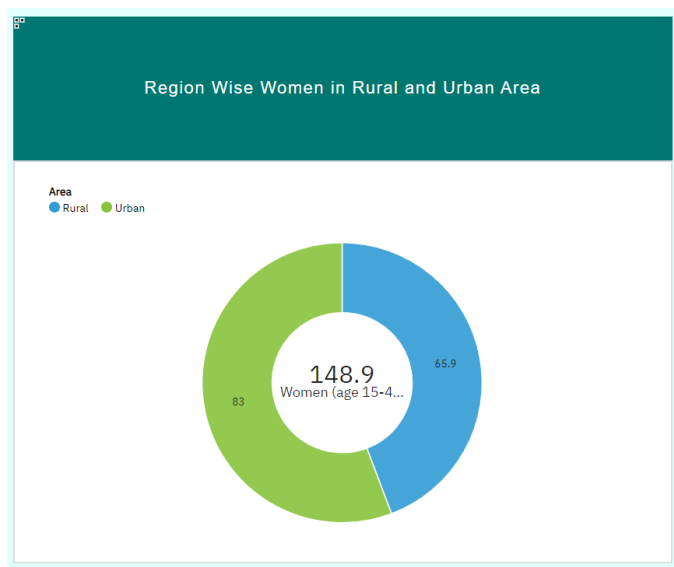
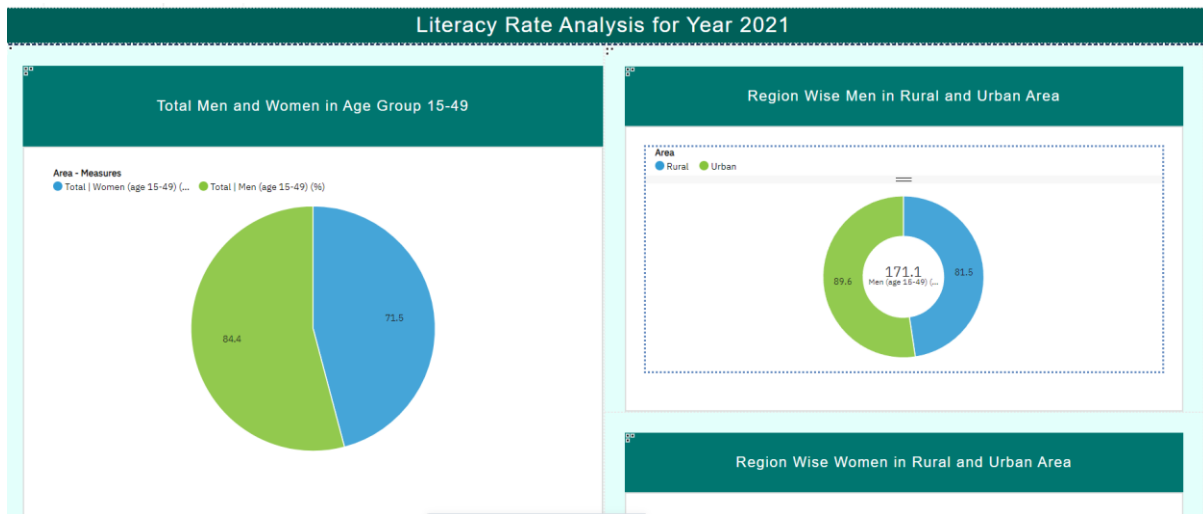




Link:

https://us3.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_folders%2FLitStory&action=view&sceneId=model00000189aaba9502_00000001&sceneTime=2150

Report:



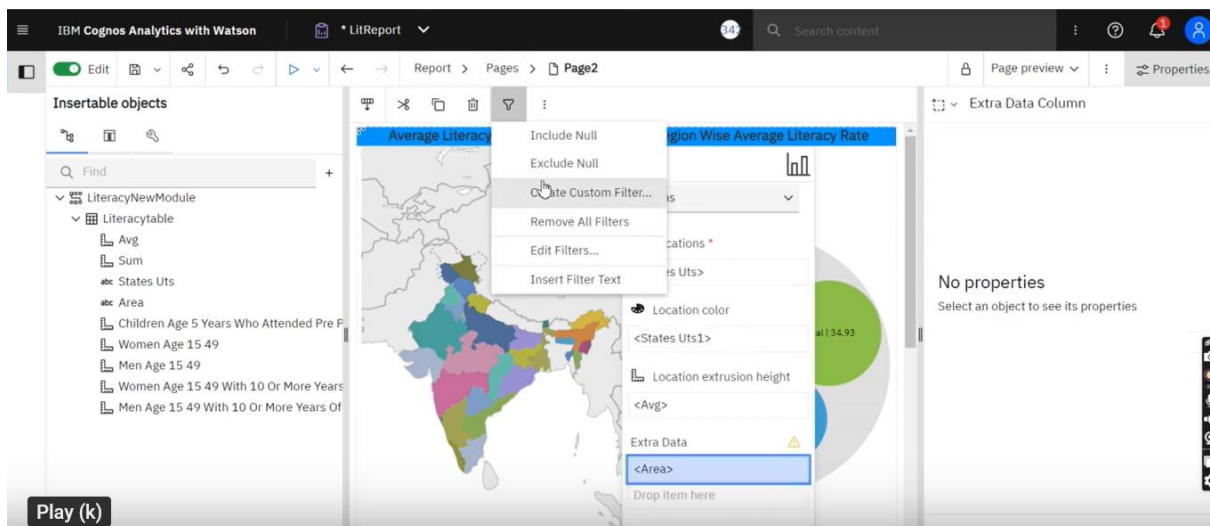


Link:


https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNew%2Breport%2528Literacy%2529&action=edit


Performance Testing


Utilization of Filters:





No of calculation fields:

 LITERACYNEWMODULE

 Navigation paths +

▼  India_Updat...y 2021.csv


 avg


 sum


▶ # Row Id

▶  States/UTs

▶ abc Area

 Children a...ary school

 Women (ag...-49) (%)

 Men (age 15-49) (%)

 Women (ag...oling (%)

 Men (age 1...oling (%)

No Of Visualizations/ Graphs:

- Overall Literacy Rate
- Literacy Rate in Indian States
- Literacy Rate of Women, Men and Children
- Average Literacy Rate of Women, Men and Children in States
- Top Literate States
- Bottom Literate States
- Women Literacy Rate in Rural and Urban Area
- Men with Age group 15-49 over those who attended schooling

Web Integration:

Dashboard link:

https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FNew%2Bdashboard%2528Literacy%2529&action=view&mode=dashboard&subView=model00000189aa84e4f7_00000000

Executable: <iframe

```
src="https://us3.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.my_folders%2FNew%2Bdashboard%2528Literacy%2529&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&mode=dashboard&subView=model00000189aa84e4f7_00000000" width="1350" height="900" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
```

Story Link:

https://us3.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_folders%2FLitStory&action=view&sceneId=model00000189aaba9502_00000001&sceneTime=5000

Executable:

```
<iframe src="https://us3.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_folders%2FLitStory&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=view&sceneId=model00000189aaba9502_00000001&sceneTime=5000" width="1350" height="900" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
```

Report Link:

https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNew%2Breport%2528Literacy%2529&action=run&format=HTML&prompt=false

Executable:

```
<iframe src="https://us3.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2FNew%2Breport%2528Literacy%2529&closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false&shareMode=embedded&action=run&format=HTML&prompt=false" width="1350" height="900" frameborder="0" gesture="media" allow="encrypted-media" allowfullscreen=""></iframe>
```

Website Link: <http://literacyrate.rf.gd/wp-content/uploads/2023/08/index.html>