PROJECTREPORT

PROJECT NAME : Malnutrition: A Disease That no one cares about

CHALLENGE CATEGORY : Data Analytics

GITHUB REPO LINK : https://github.com/smartinternz02/SBSPS-Challenge-10041-Malnutrition-A-Disease-That-no-one-cares-about

TEAM MEMBERS :

S.Rohit(20471A05N2)

M.Teja(20471A05L8)

P.Surya Teja(20471A05H3)

B.Venkata Siva Battu(20471A05K0)

IBM IDS: :

20471A05N2@nrtec.in
20471A05L8@nrtec.in
20471A05H3@nrtec.in
20471A05K0@nrtec.in

OVERVIEW

Malnutrition is an imbalance between the nutrients your body needs to function and the nutrients it gets. It can mean undernutrition or overnutrition. You can be malnourished from an overall lack of calories, or you might have a protein, vitamin or mineral deficiency. You might also have more excess calories than your body knows what to do with. Malnutrition continues to be the reason for making children much more vulnerable to diseases and death. There are 4 broad types of malnutrition: wasting, stunting, underweight and overweight. Hence A comprehensive malnutrition analysis provides insights into the extent and consequences of malnutrition, helping inform targeted interventions and policies to improve nutrition and overall health.

PURPOSE

"Our project aims to raise awareness about the causes and consequences of malnutrition, explore its impact on different populations, and propose effective strategies to combat and prevent malnutrition for a healthier and more equitable future.".

LITERATURE SURVEY

Existing problem

In conclusion, malnutrition stands as a multifaceted crisis encompassing undernutrition's impact on childhood development and the rising concern of overnutrition-driven chronic diseases. Micronutrient deficiencies further compound the issue, affecting various aspects of health. Tackling malnutrition requires a holistic approach that combines improved food access, education, and healthcare. By addressing these interconnected challenges, we can pave the way for healthier generations and enhanced well-being on a global scale.

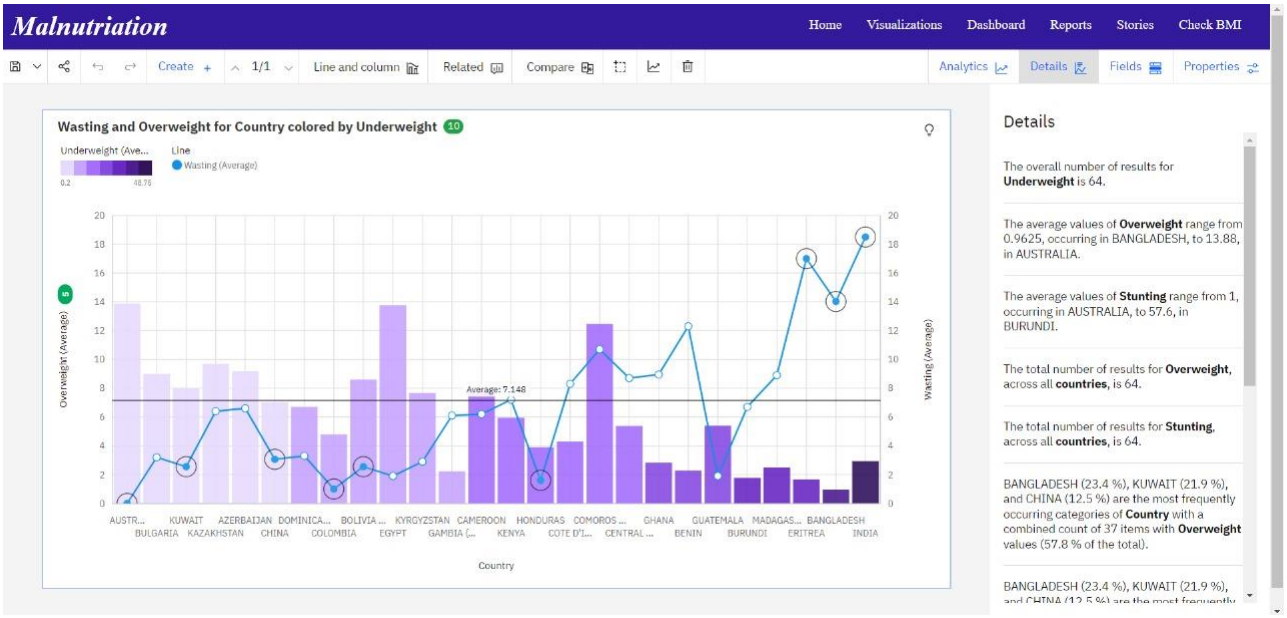
proposed solution

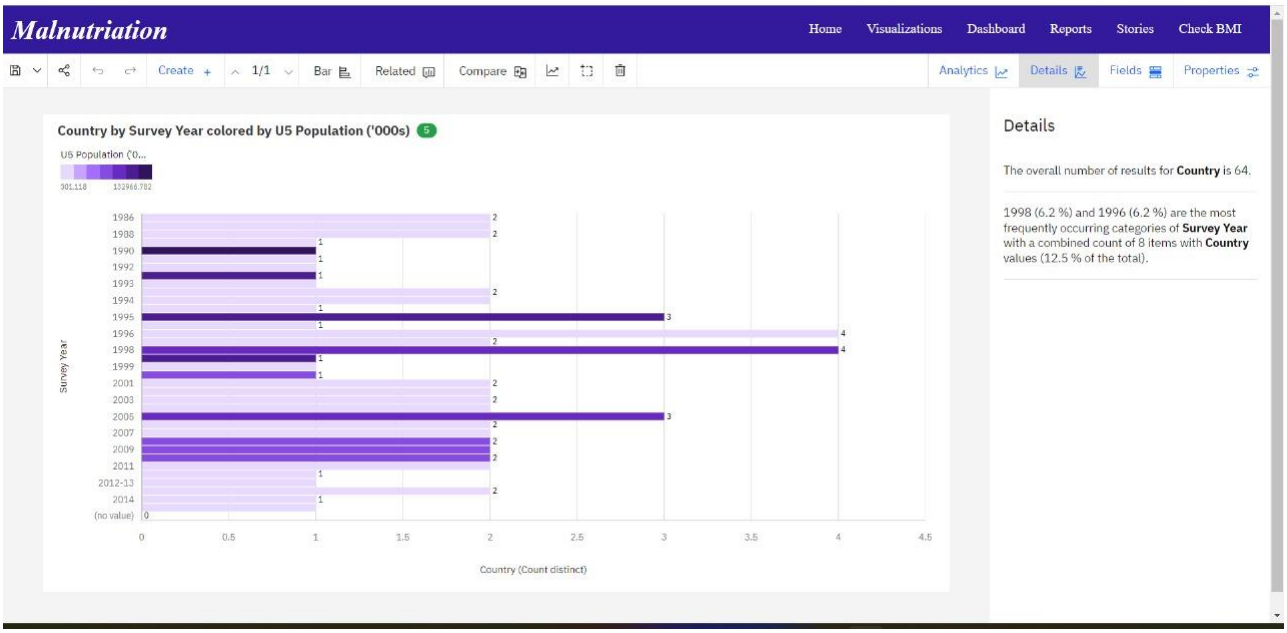
Implementing food banks is indeed a valuable solution to combat malnutrition. Food banks play a crucial role in providing immediate relief to individuals and families facing food insecurity. By collecting surplus or donated food from various sources and distributing it to those in need, food banks contribute to alleviating hunger and addressing undernutrition. They also serve as a bridge between surplus food that might otherwise go to waste and people who require nutritional support. However, it's important to complement food bank initiatives with long-term strategies that address the root causes of malnutrition, such as poverty, lack of access to education, and limited healthcare resources. This comprehensive approach will contribute to sustained improvements in nutritional well-being and overall quality of life.

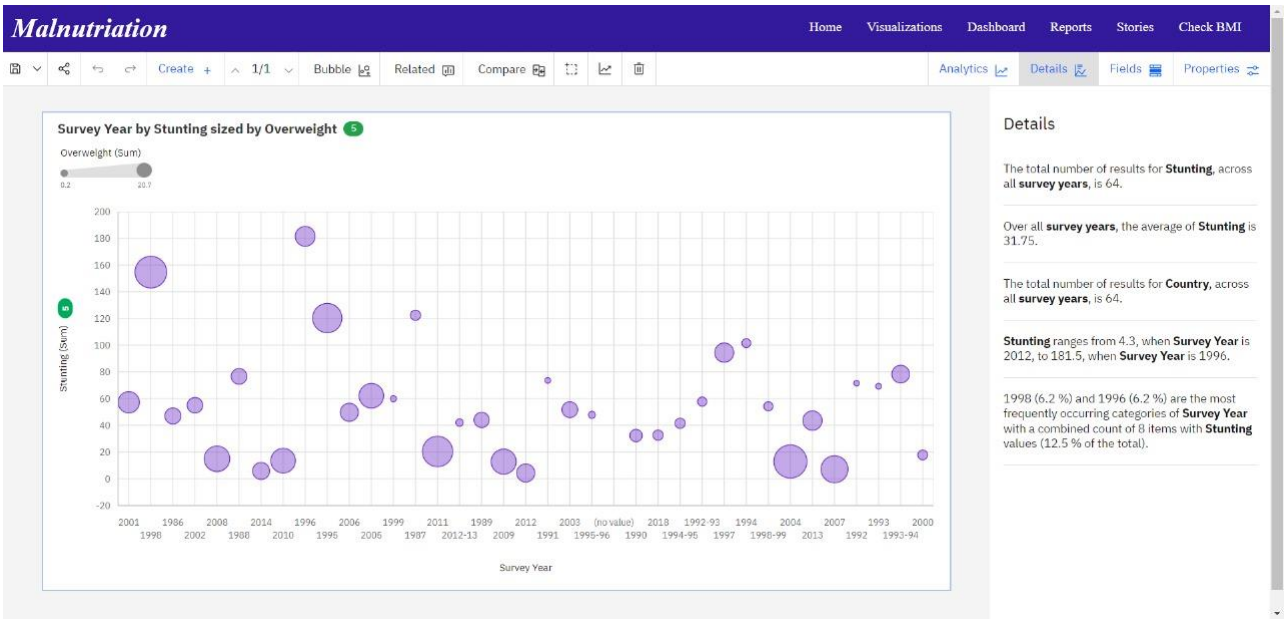
Hard Ware and Software Designing

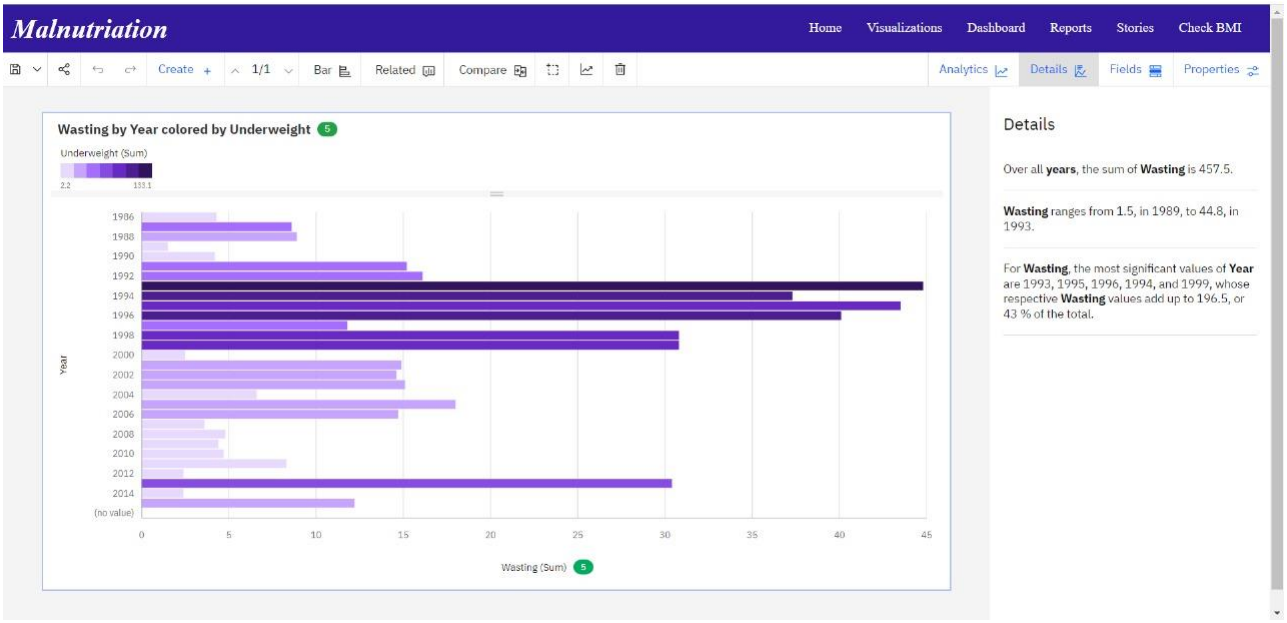
The hardware requirements for a project focused on analyzing India's agricultural sector, utilizing population trends, and implementing strategic decisions to promote sustainable agricultural practices and enhance productivity could vary based on the specific scope and goals of the project. However, I can provide a general outline of the types of hardware that might be needed

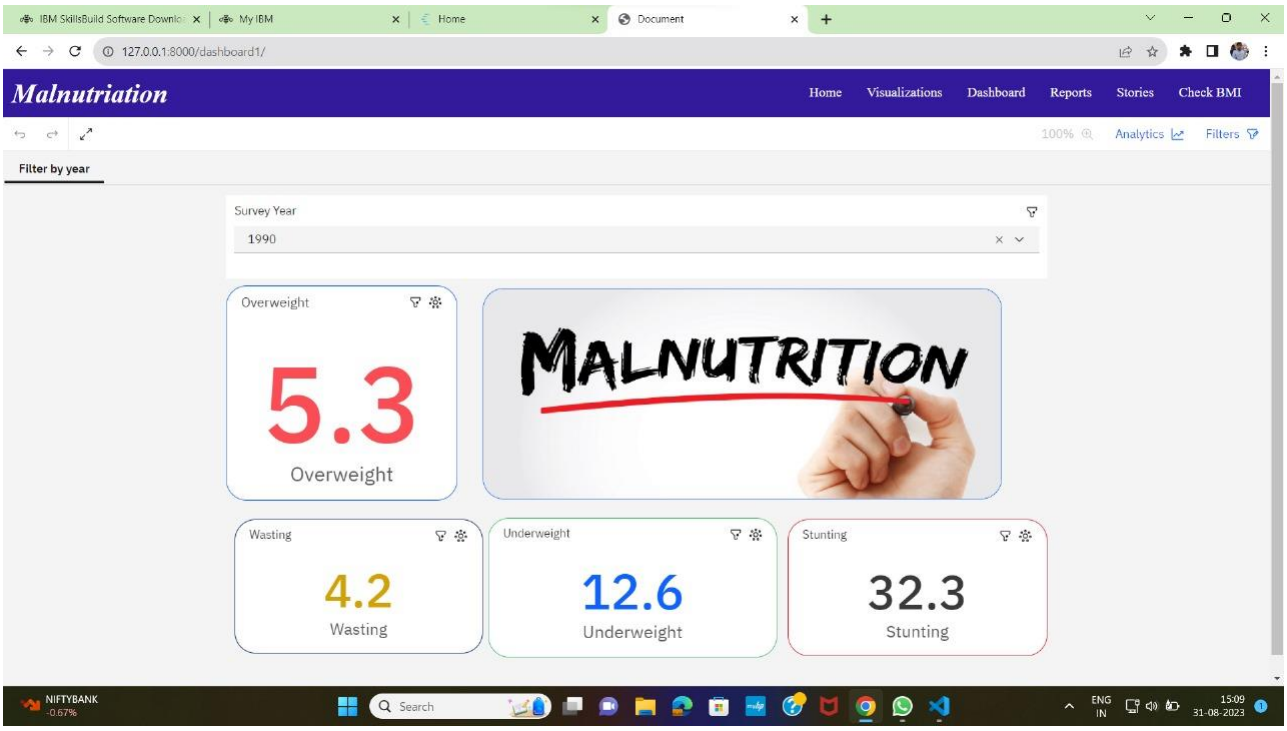
VISUALIZATIONS AND DASHBOARDS

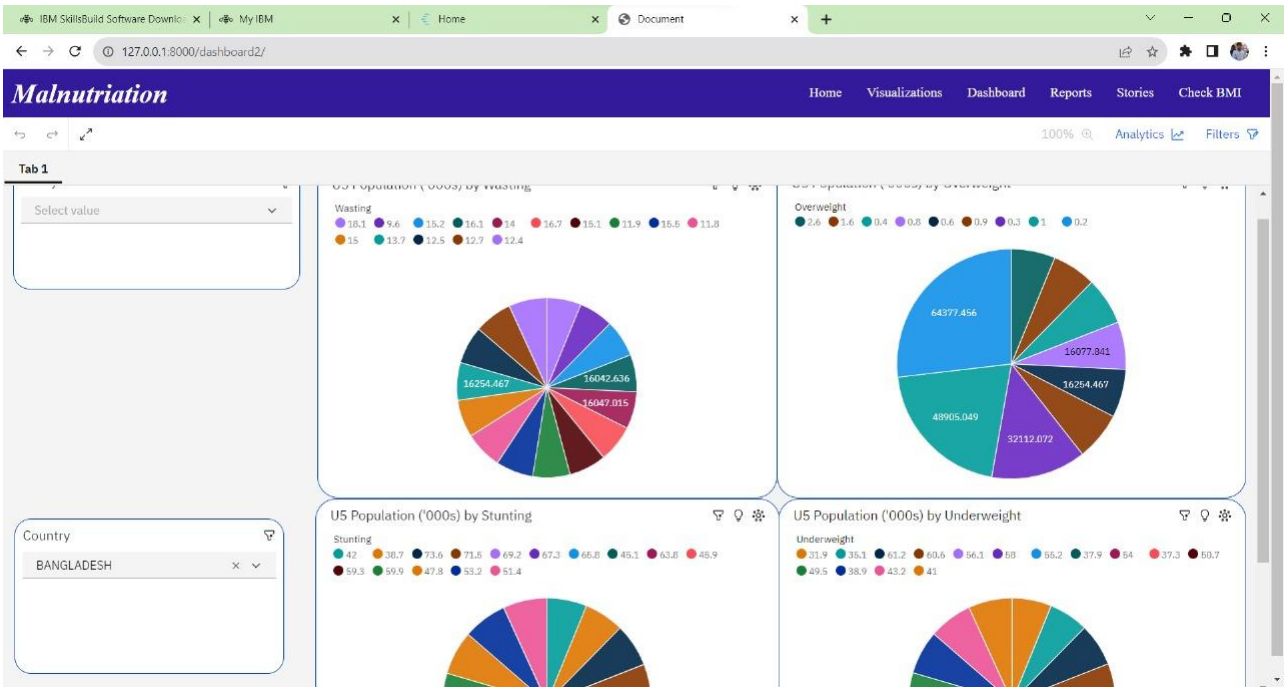


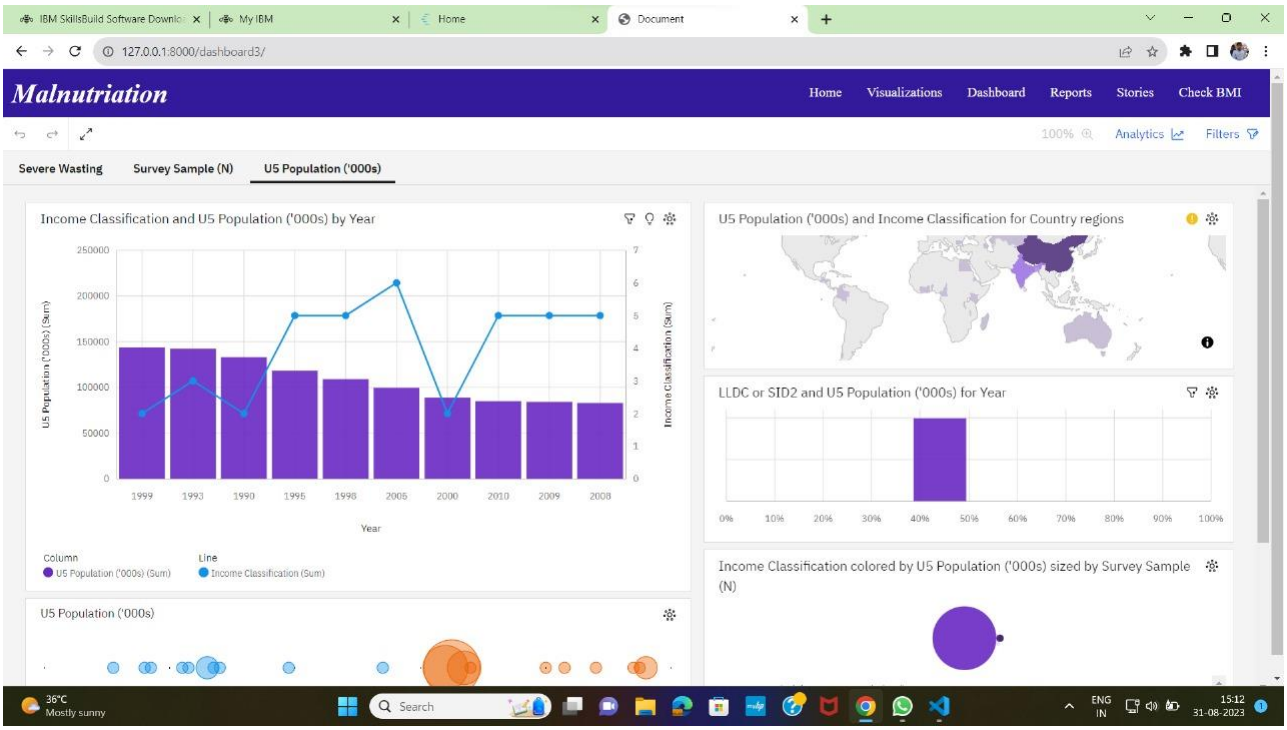


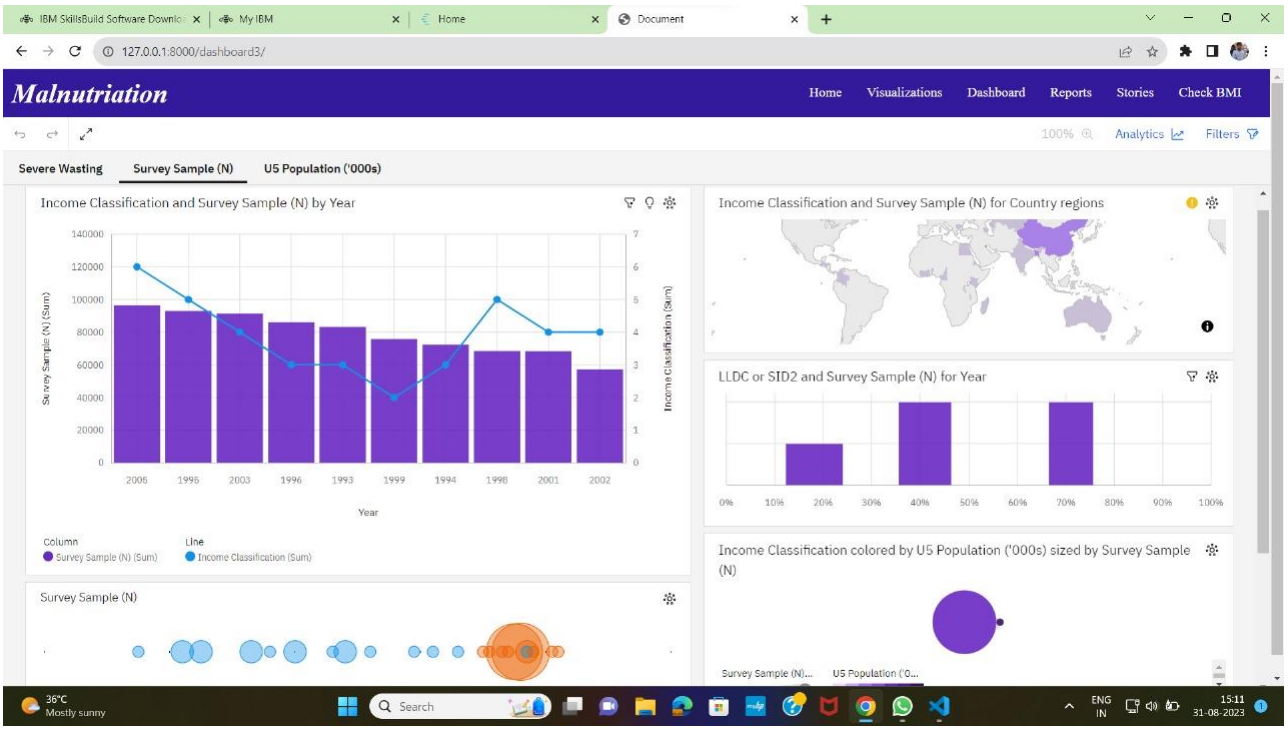

Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Create
1/1
Bubble
Related
Compare
Analytics
Details
Fields
Properties
Survey Year by Stunting sized by Overweight
5
Overweight (Sum)
0.2
20.7
Stunting (Sum)
5
200
180
160
140
120
100
80
60
40
20
0
-20
2001
1986
2008
2014
1996
2006
1999
2011
1989
2012
2003
(no value)
2018
1992-93
1994
2004
2007
1993
2000
1998
2002
1988
2010
1995
2006
1987
2012-13
2009
1991
1995-96
1990
1994-95
1997
1998-99
2013
1992
1993-94
Survey Year
Details
The total number of results for Stunting, across all survey years, is 64.
Over all survey years, the average of Stunting is 31.75.
The total number of results for Country, across all survey years, is 64.
Stunting ranges from 4.3, when Survey Year is 2012, to 181.5, when Survey Year is 1996.
1998 (6.2 %) and 1996 (6.2 %) are the most frequently occurring categories of Survey Year with a combined count of 8 items with Stunting values (12.5 % of the total).

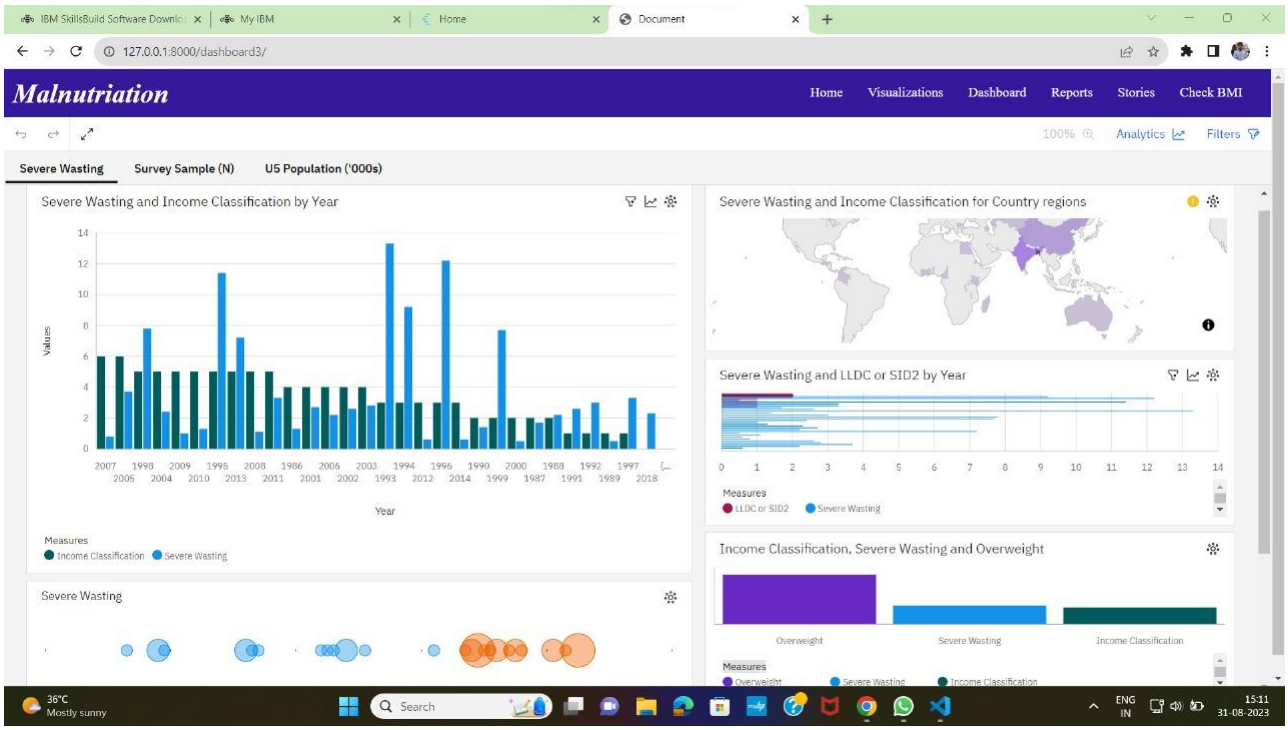

Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Create
1/1
Bar
Related
Compare
Analytics
Details
Fields
Properties
Wasting by Year colored by Underweight
5
Underweight (Sum)
2.2
133.1
Year
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
(no value)
0
5
10
15
20
25
30
35
40
45
Wasting (Sum)
5
Details
Over all years, the sum of Wasting is 457.5.
Wasting ranges from 1.5, in 1989, to 44.8, in 1993.
For Wasting, the most significant values of Year are 1993, 1995, 1996, 1994, and 1999, whose respective Wasting values add up to 196.5, or 43 % of the total.

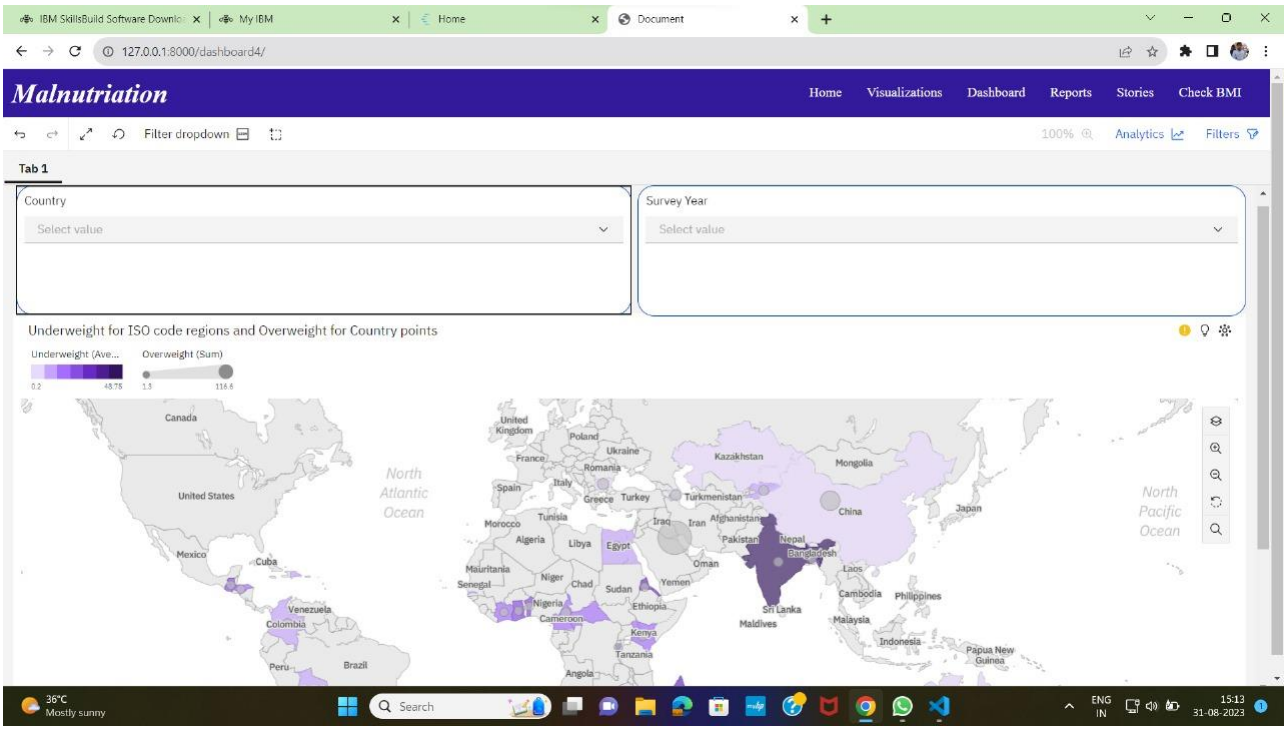

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard1/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
100%
Analytics
Filters
Filter by year
Survey Year
1990
Overweight
5.3
Overweight
MALNUTRITION
Wasting
4.2
Wasting
Underweight
12.6
Underweight
Stunting
32.3
Stunting
NIFTYBANK
-0.67%
Search
ENG
IN
15:09
31-08-2023

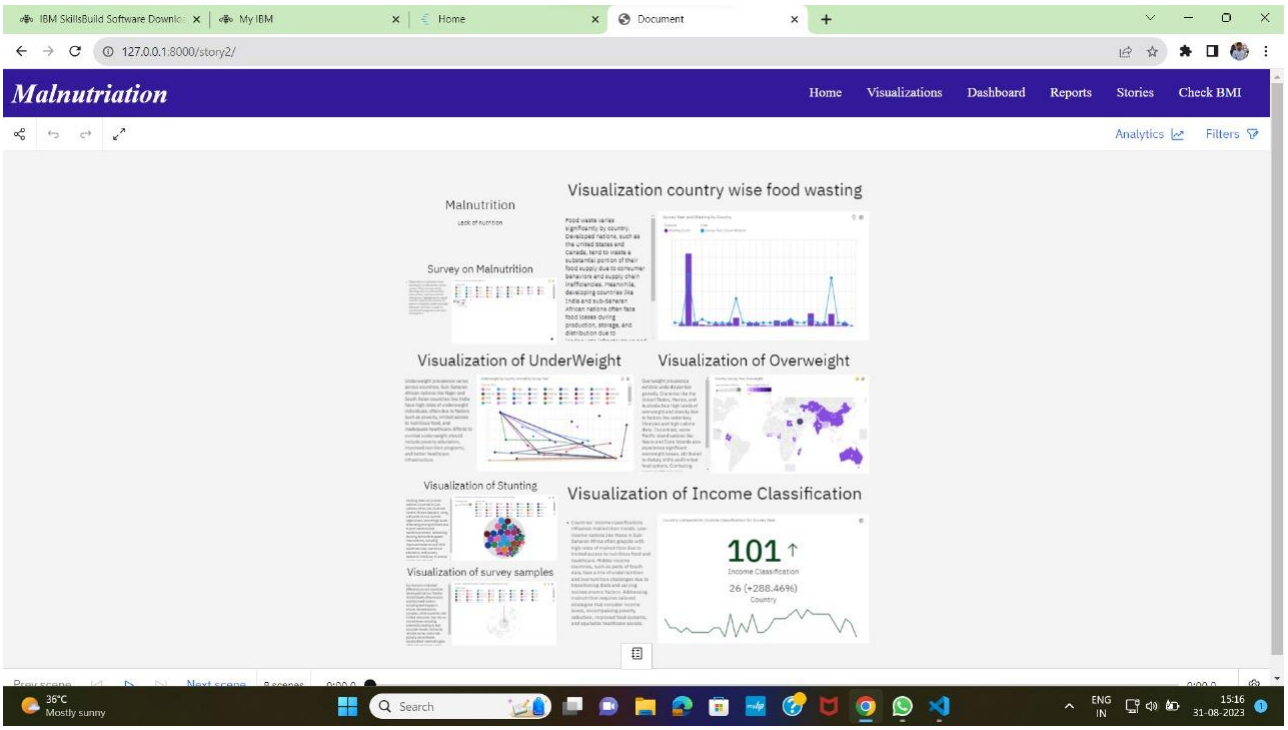

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard2/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
100%
Analytics
Filters
Tab 1
Select value
Wasting
18.1 9.6 15.2 16.1 14 16.7 15.1 11.9 15.5 11.8
15 13.7 12.5 12.7 12.4
16254.467
16042.636
16047.015
Overweight
2.6 1.6 0.4 0.8 0.6 0.9 0.3 1 0.2
64377.456
16077.841
16254.467
48905.049
32112.072
Country
BANGLADESH
U5 Population ('000s) by Stunting
Stunting
42 38.7 73.6 71.5 69.2 67.3 66.8 45.1 63.8 45.9
59.3 59.9 47.8 53.2 51.4
U5 Population ('000s) by Underweight
Underweight
31.9 35.1 61.2 60.6 56.1 58 55.2 37.9 54 37.3 50.7
49.5 38.9 43.2 41

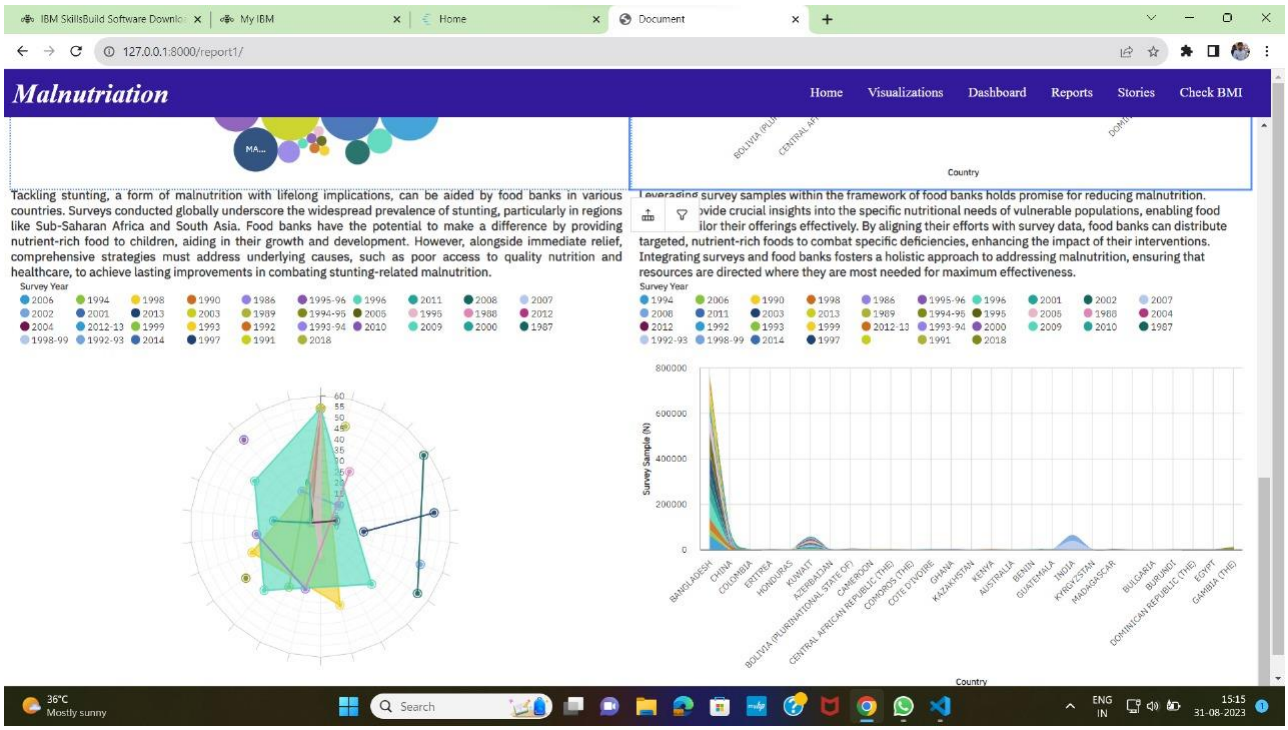

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard3/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
100%
Analytics
Filters
Severe Wasting
Survey Sample (N)
U5 Population ('000s)
Income Classification and U5 Population ('000s) by Year
U5 Population ('000s) (Sum)
Income Classification (Sum)
250000
200000
150000
100000
50000
0
7
6
5
4
3
2
1
0
1999
1993
1990
1995
1998
2005
2000
2010
2009
2008
Year
Column
U5 Population ('000s) (Sum)
Line
Income Classification (Sum)
U5 Population ('000s) and Income Classification for Country regions
LLDC or SID2 and U5 Population ('000s) for Year
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Income Classification colored by U5 Population ('000s) sized by Survey Sample (N)
U5 Population ('000s)
36°C
Mostly sunny
Search
ENG
IN
15:12
31-08-2023

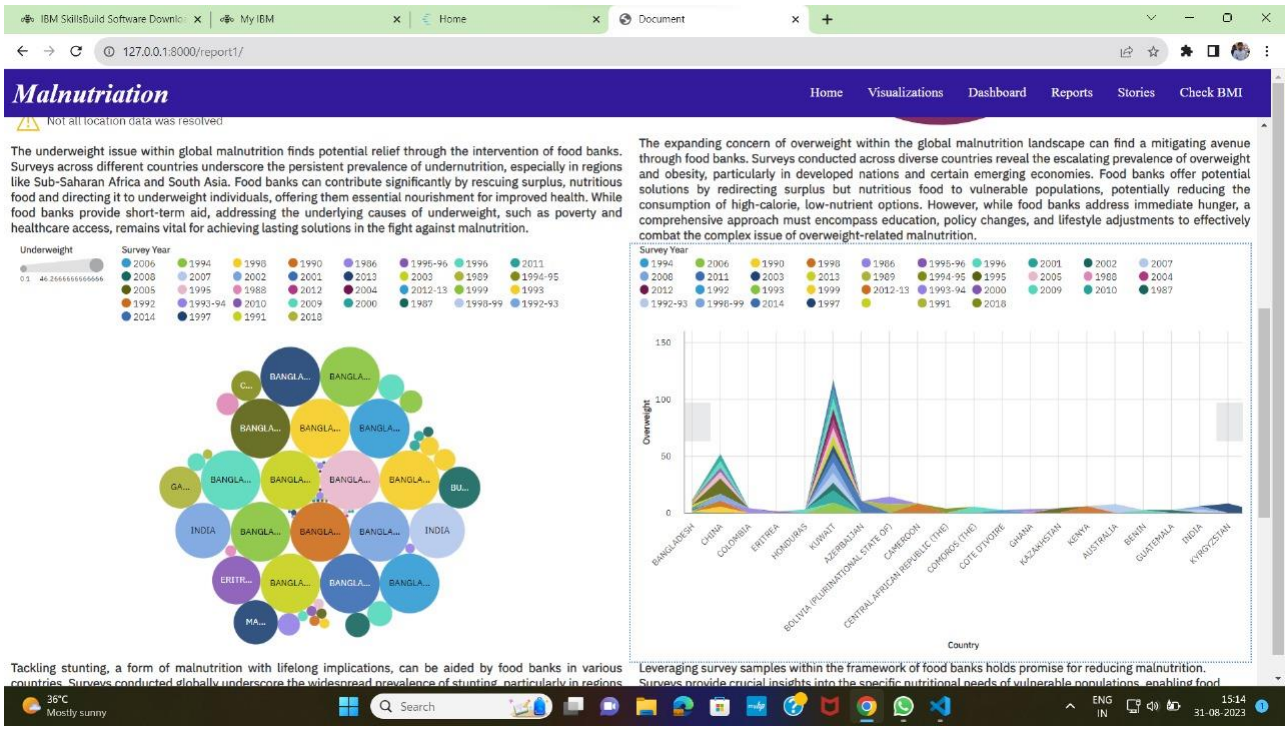

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard3/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
100%
Analytics
Filters
Severe Wasting
Survey Sample (N)
U5 Population ('000s)
Income Classification and Survey Sample (N) by Year
Survey Sample (N) (Sum)
Income Classification (Sum)
Year
Column
Survey Sample (N) (Sum)
Line
Income Classification (Sum)
Income Classification and Survey Sample (N) for Country regions
LLDC or SID2 and Survey Sample (N) for Year
Income Classification colored by U5 Population ('000s) sized by Survey Sample (N)
Survey Sample (N)
Survey Sample (N)...
U5 Population ('0...
36°C
Mostly sunny
Search
ENG
IN
15:11
31-08-2023

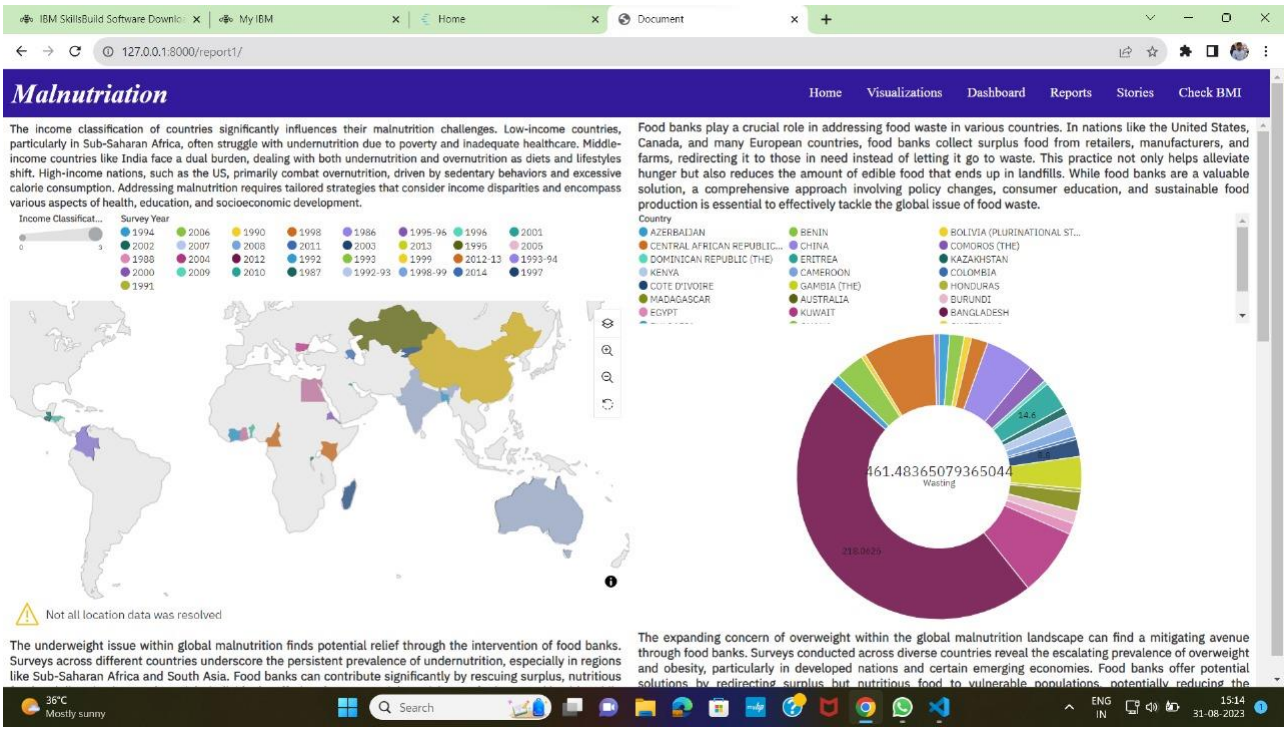

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard3/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
100%
Analytics
Filters
Severe Wasting
Survey Sample (N)
U5 Population ('000s)
Severe Wasting and Income Classification by Year
Values
Year
Measures
Income Classification
Severe Wasting
Severe Wasting and Income Classification for Country regions
Severe Wasting and LLDC or SID2 by Year
Measures
LLDC or SID2
Severe Wasting
Income Classification, Severe Wasting and Overweight
Overweight
Severe Wasting
Income Classification
Measures
Overweight
Severe Wasting
Income Classification
Severe Wasting
36°C
Mostly sunny
Search
ENG
IN
15:11
31-08-2023

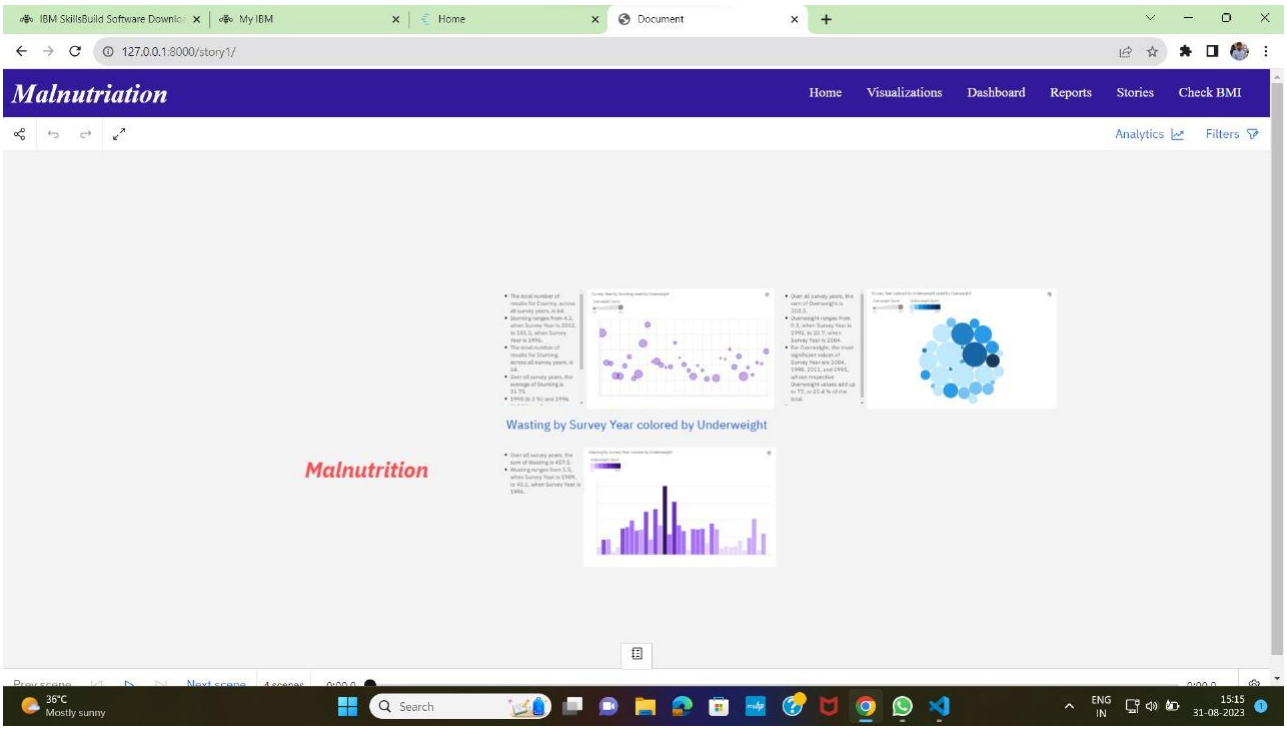

IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/dashboard4/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Filter dropdown
100%
Analytics
Filters
Tab 1
Country
Select value
Survey Year
Select value
Underweight for ISO code regions and Overweight for Country points
Underweight (Ave...
Overweight (Sum)
0.2
48.75
1.3
116.6
North Atlantic Ocean
North Pacific Ocean
Canada
United States
Mexico
Cuba
Venezuela
Colombia
Peru
Brazil
United Kingdom
Poland
Ukraine
France
Romania
Spain
Italy
Greece
Turkey
Morocco
Tunisia
Algeria
Libya
Egypt
Mauritania
Senegal
Niger
Chad
Sudan
Nigeria
Cameroon
Ethiopia
Kenya
Tanzania
Angola
Yemen
Oman
Kazakhstan
Turkmenistan
Iraq
Iran
Afghanistan
Pakistan
Nepal
Bangladesh
Sri Lanka
Maldives
Mongolia
China
Japan
Laos
Cambodia
Philippines
Malaysia
Indonesia
Papua New Guinea
36°C
Mostly sunny
Search
ENG
IN
15:13
31-08-2023


Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Analytics
Filters
Malnutrition
Survey on Malnutrition
Visualization country wise food wasting
Visualization of UnderWeight
Visualization of Overweight
Visualization of Stunting
Visualization of survey samples
Visualization of Income Classification
101
Income Classification
26 (+288.46%)
Country


Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Country
Tackling stunting, a form of malnutrition with lifelong implications, can be aided by food banks in various countries. Surveys conducted globally underscore the widespread prevalence of stunting, particularly in regions like Sub-Saharan Africa and South Asia. Food banks have the potential to make a difference by providing nutrient-rich food to children, aiding in their growth and development. However, alongside immediate relief, comprehensive strategies must address underlying causes, such as poor access to quality nutrition and healthcare, to achieve lasting improvements in combating stunting-related malnutrition.
Leveraging survey samples within the framework of food banks holds promise for reducing malnutrition.
ovide crucial insights into the specific nutritional needs of vulnerable populations, enabling food
ilor their offerings effectively. By aligning their efforts with survey data, food banks can distribute targeted, nutrient-rich foods to combat specific deficiencies, enhancing the impact of their interventions. Integrating surveys and food banks fosters a holistic approach to addressing malnutrition, ensuring that resources are directed where they are most needed for maximum effectiveness.
Survey Year
Survey Sample (N)
Country


IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/report1/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
Not all location data was resolved
The underweight issue within global malnutrition finds potential relief through the intervention of food banks. Surveys across different countries underscore the persistent prevalence of undernutrition, especially in regions like Sub-Saharan Africa and South Asia. Food banks can contribute significantly by rescuing surplus, nutritious food and directing it to underweight individuals, offering them essential nourishment for improved health. While food banks provide short-term aid, addressing the underlying causes of underweight, such as poverty and healthcare access, remains vital for achieving lasting solutions in the fight against malnutrition.
Underweight
Survey Year
The expanding concern of overweight within the global malnutrition landscape can find a mitigating avenue through food banks. Surveys conducted across diverse countries reveal the escalating prevalence of overweight and obesity, particularly in developed nations and certain emerging economies. Food banks offer potential solutions by redirecting surplus but nutritious food to vulnerable populations, potentially reducing the consumption of high-calorie, low-nutrient options. However, while food banks address immediate hunger, a comprehensive approach must encompass education, policy changes, and lifestyle adjustments to effectively combat the complex issue of overweight-related malnutrition.
Survey Year
Overweight
Country
BANGLADESH
CHINA
COLOMBIA
ERITREA
HONDURAS
KUWAIT
AZERBAIJAN
BOLIVIA (PLURINATIONAL STATE OF)
CAMEROON
CENTRAL AFRICAN REPUBLIC (THE)
COMOROS (THE)
COTE D'IVOIRE
GHANA
KAZAKHSTAN
KENYA
AUSTRALIA
BENIN
GUATEMALA
INDIA
KYRGYZSTAN
Tackling stunting, a form of malnutrition with lifelong implications, can be aided by food banks in various countries. Surveys conducted globally underscore the widespread prevalence of stunting, particularly in regions
Leveraging survey samples within the framework of food banks holds promise for reducing malnutrition. Surveys provide crucial insights into the specific nutritional needs of vulnerable populations, enabling food
36°C
Mostly sunny
Search
ENG
IN
15:14
31-08-2023


IBM SkillsBuild Software Downlo
My IBM
Home
Document
127.0.0.1:8000/report1/
Malnutriation
Home
Visualizations
Dashboard
Reports
Stories
Check BMI
The income classification of countries significantly influences their malnutrition challenges. Low-income countries, particularly in Sub-Saharan Africa, often struggle with undernutrition due to poverty and inadequate healthcare. Middle-income countries like India face a dual burden, dealing with both undernutrition and overnutrition as diets and lifestyles shift. High-income nations, such as the US, primarily combat overnutrition, driven by sedentary behaviors and excessive calorie consumption. Addressing malnutrition requires tailored strategies that consider income disparities and encompass various aspects of health, education, and socioeconomic development.
Income Classificat...
Survey Year
Food banks play a crucial role in addressing food waste in various countries. In nations like the United States, Canada, and many European countries, food banks collect surplus food from retailers, manufacturers, and farms, redirecting it to those in need instead of letting it go to waste. This practice not only helps alleviate hunger but also reduces the amount of edible food that ends up in landfills. While food banks are a valuable solution, a comprehensive approach involving policy changes, consumer education, and sustainable food production is essential to effectively tackle the global issue of food waste.
Country
AZERBAIJAN
BENIN
BOLIVIA (PLURINATIONAL ST...
CENTRAL AFRICAN REPUBLIC...
CHINA
COMOROS (THE)
DOMINICAN REPUBLIC (THE)
ERITREA
KAZAKHSTAN
KENYA
CAMEROON
COLOMBIA
COTE D'IVOIRE
GAMBIA (THE)
HONDURAS
MADAGASCAR
AUSTRALIA
BURUNDI
EGYPT
KUWAIT
BANGLADESH
461.48365079365044
Wasting
Not all location data was resolved
The underweight issue within global malnutrition finds potential relief through the intervention of food banks. Surveys across different countries underscore the persistent prevalence of undernutrition, especially in regions like Sub-Saharan Africa and South Asia. Food banks can contribute significantly by rescuing surplus, nutritious
The expanding concern of overweight within the global malnutrition landscape can find a mitigating avenue through food banks. Surveys conducted across diverse countries reveal the escalating prevalence of overweight and obesity, particularly in developed nations and certain emerging economies. Food banks offer potential solutions by redirecting surplus but nutritious food to vulnerable populations, potentially reducing the
36°C
Mostly sunny
Search
ENG
IN
15:14
31-08-2023



Hardware Requirments

1. Computers/Laptops
2. Smartphones/Tablets
3. Digital Cameras or Camcorders (for capturing images/videos)
4. Scanners (for digitizing printed materials)
5. Projector and Screen (for presentations)
6. Microphones (for recording audio)
7. External Hard Drives or USB Drives (for data storage)
8. Printers (for printing documents and materials)
9. Whiteboard or Flip Chart (for brainstorming and visual aids)
10. Wearable Fitness Trackers (for collecting health-related data, if relevant)

Software Requirments

For Analysis (IBM Cognos)

1. IBM Cognos Analytics

2. IBM Cognos Report Studio

3. IBM Cognos Dashboard

4. IBM Cognos Workspace

5. IBM Cognos Connection

6. IBM Cognos Framework Manager

7. IBM Cognos Mobile (for mobile access)

8. IBM Cognos Event Studio (for automated alerts and notifications)

9. IBM Cognos Transformer (for multidimensional data analysis)

10. Supported web browsers for accessing Cognos applications

EXPERIMENTAL INVESTIGATIONS

Absolutely, here's a condensed version of each heading for your experimental investigation related to malnutrition:

1. **Laboratory Equipment:** Equipment like microscopes, centrifuges, and spectrophotometers for analyzing samples.

2. **Biological Samples:** Essential samples like blood, tissue, and urine for studying malnutrition effects.

3. Controlled Environment: Growth chambers or incubators to mimic conditions for research.

4. **Research Participants:** Human subjects for studies, following ethical guidelines and consent procedures.

5. **Data Collection Tools:** Tools like questionnaires, scales, sensors, or data loggers for collecting data.

6. **Statistical Software**: Software like SPSS, R, or Python for data analysis.

7. **Research Space:** Dedicated space for conducting experiments and investigations.

DVANTAGES & DISADVANTAGES

Advantages:

Certainly, here's a concise list of advantages and disadvantages of a project on malnutrition:

Advantages:

1. **Awareness**: The project raises awareness about the critical issue of malnutrition, fostering understanding and empathy.

2. **Impact:** Effective solutions can directly improve health and quality of life for those affected.

3. **Education**: The project educates individuals, communities, and policymakers about the complexities of malnutrition.

4**. Collaboration**: It encourages collaboration among researchers, organizations, and governments to address the problem.

5. **Empowerment**: The project empowers communities to take action against malnutrition and its root causes.

Disadvantages:

1. **Complexity**: Malnutrition is a multifaceted issue, making finding effective solutions challenging.

2. **Resource Intensive**: Projects require resources like time, funding, and expertise to execute successfully.

3. **Long-term Impact**: Achieving lasting change in malnutrition requires sustained efforts beyond the project's timeline.

4. **Cultural Sensitivity:** Solutions must consider cultural contexts to avoid unintentional harm or insensitivity.

5. **Data Challenges:** Gathering accurate data on malnutrition can be difficult due to various factors.

APPLICATIONS

1. Public Health Campaigns
2. Policy Development and Advocacy
3. Community Workshops and Training
4. School Nutrition Programs
5. Healthcare Provider Training
6. Nonprofit and NGO Initiatives
7. Sustainable Agriculture Projects
8. Government Nutrition Programs
9. Nutrition Education Platforms
10. Global Health Partnerships

CONCLUSION

In conclusion, our project underscores the multifaceted nature of malnutrition, revealing its intricate links to socio-economic disparities, accessibility barriers, cultural influences, and levels of health education. The significance of addressing

malnutrition cannot be overstated, as it holds the key to fostering improved individual well-being, driving economic development, and enhancing the overall health of societies. The depth of this challenge necessitates holistic solutions that encompass not only food distribution but also education, policy reform, and community engagement. By combining these efforts, we can aspire to create a future where malnutrition is mitigated, enabling individuals to lead healthier lives and societies to prosper collectively.

FUTURE SCOPE

Certainly, here's a potential outline of the future scope that could arise from your malnutrition project:

1. Extended Research: The findings of this project lay the groundwork for further in-depth research into specific aspects of malnutrition, such as its correlation with specific health conditions, regional variations, or the effectiveness of different intervention strategies.

2. Policy Implementation: The project's recommendations could serve as a basis for implementing new policies at various levels, such as local, national, or international, aimed at improving food security and nutritional standards.

3. Community Engagement: Building upon the project's community engagement strategies, future efforts could involve working closely with communities to develop sustainable solutions tailored to their unique needs and cultural contexts.

4. Technology Integration: Embracing emerging technologies, such as mobile apps for nutrition tracking or data-driven decision-making, could enhance the impact of future initiatives on malnutrition reduction.

5. Global Collaboration: Partnering with international organizations, governments, NGOs, and academic institutions can amplify the reach and impact of efforts to combat malnutrition on a global scale.

BIBLIOGRAPHY

Books:

Author(s). (Year). *Title of Book*. Publisher.

Example:

Smith, J. A. (2021). *Nutrition and Health: A Comprehensive Guide*. Healthy Press.

Journal Articles:

Author(s). (Year). Title of the article. *Journal Name*, Volume(Issue), Page range.

Example:

Johnson, L. M., & Martinez, S. A. (2022). Malnutrition among School-Aged Children. *Journal of Public Health*, 15(3), 45-58.

Websites:

Author(s) or Organization. (Year). Title of the webpage/document. URL

Example:

World Health Organization. (2020). Global Nutrition Report 2020. https://www.who.int/nutrition/globalnutritionreport/en/