SMART GOVERNANCE THROUGH BIGDATA: Digital Transformation of Public Agencies

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Abstract- Big data is a potential instrument to transform traditional governance into smart governance. Smart governance is an important tool for a smart government which is a timely demand in the 21st century. Technology is the key pillar of smart governance. Smart governance is the information communication technology (ICT) based third-generation government model which transformed from the traditional government system. This project attempts to explore the suitability of big data technologies for smart governance in public agencies. Here we suggest a conceptual model which explains how data will be collected from various sources and followed a series of the procedure by maintaining a certain indicator that explains the measurement of the standard of the system. It also explains the outcome after following a series of procedures. This reveals that big data has big potential for smart governance in the public sector even though it is still in its initial stage.

Keywords- Bigdata, Hadoop, MapReduce

INTRODUCTION

Smart governance is an important tool for a smart government which is a timely demand in the 21st century. Perfect smart governance can be achieved by technology. Public administration reform is a continuous process to update itself with timely, modern, and updated technology. Nowadays nobody can deny the importance of smart governance which is the new version of the political process, governance, and public administration. The adoption of the electronic process in the political system and administrative system enable e-government. Smart government is the advanced version of e-government. The governance system uses technology for its affairs for the last few years. Most of the developed countries are using modern technology for the smooth running of their public administration. There is a big trend among politicians, academicians,

researchers, and practitioners to use modern technology for the governance system in public administration. what are the elements of smart governance and how does it adopt big data technologies? And how do the traditional public agencies get benefitted from big data technologies and transform them into smart public agencies? The article describes the context of the application of big data technologies for the smart government as a literature review in its second section. Next, it provides the methodology and dimension, opportunity, and key drivers of big data in its third and fourth sections respectively. The fifth section describes the key drivers, dimensions, challenges, and opportunities of smart governance under big data technologies. The final section concludes the article with some recommendations.

PROPOSED SYSTEM

This article argues that the application of big data for smart governance in the public sector can increase the efficiency of the public agencies reducing public hassle and helping to become a smart agency fastest public service delivery, enhancing transparency. This paper extension mainly deals with the implementation of big data for smart governance has a significant role in error-free, timely, appropriate, and cost-effective service delivery to citizens which leads to the sustainable economic development of a country. The findings suggest that every public-sector agency should be brought under smart governance which should be fully promoted under big data technologies for easy access, transparency and accountability, and hassle-free public agencies.

Advantages of Proposed System:

1. More Effective.

Modules:

1. Upload Public Information Dataset
2. Search Type
3. Search Value
4. Search Public Information Using BigDataHadoopMapReduce
5. Data Visualization graph

1. Upload Public Information Dataset

The upload Public Information Dataset module is used to upload public data.

2. Search Type

we can see dataset size, column names, and several columns. Now select any search type module

and choose search value to perform search operation on a dataset using apache HADOOP.MapReduceBigdata technique. selecting search type as work-class and after selecting that we will get all types of work class.

3. Search Value

The search value module is used to selecting the 'Private' value which means I want to search all peoples who are working under 'Private Work Class' and below are the search results.

4. Search Public Information Using BigDataHadoopMapReduce

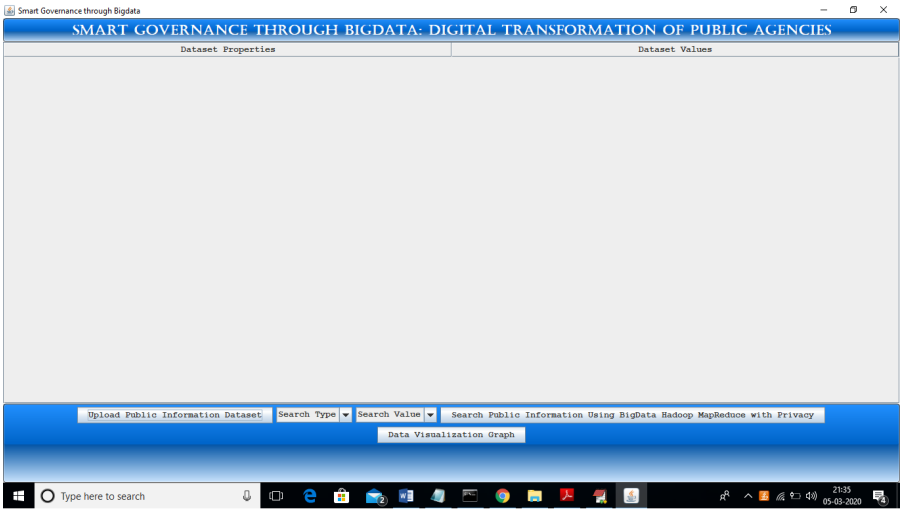
Search Public Information Using Big Data Hadoop Map Reduce with Privacy module to start search operation. we can see all people's details who are working in the private sector and in race attribute mark with * symbol to provide privacy to user data. Similarly, u can select other attributes and perform search operations. we can see this data is processed using HADOOP MapReduce

5.Data Visualization graph

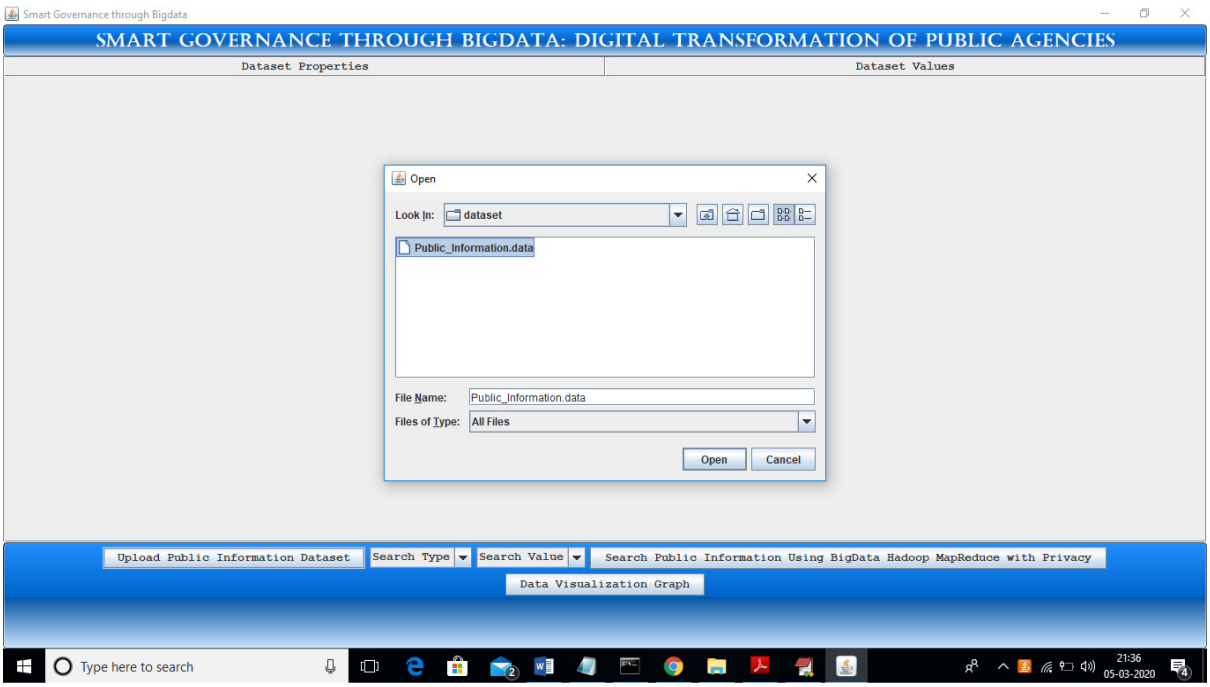
You want to visualize this data using a graph then the Data Visualization Graph module is used and In the above graph, we can see clearly how many peoples are working in which sector. In the above graph?means don't know the working class of that much percentage peoples. If u want to know the count or percentage of peoples in which work class then put the cursor on that graph area.

IMPLEMENTATION

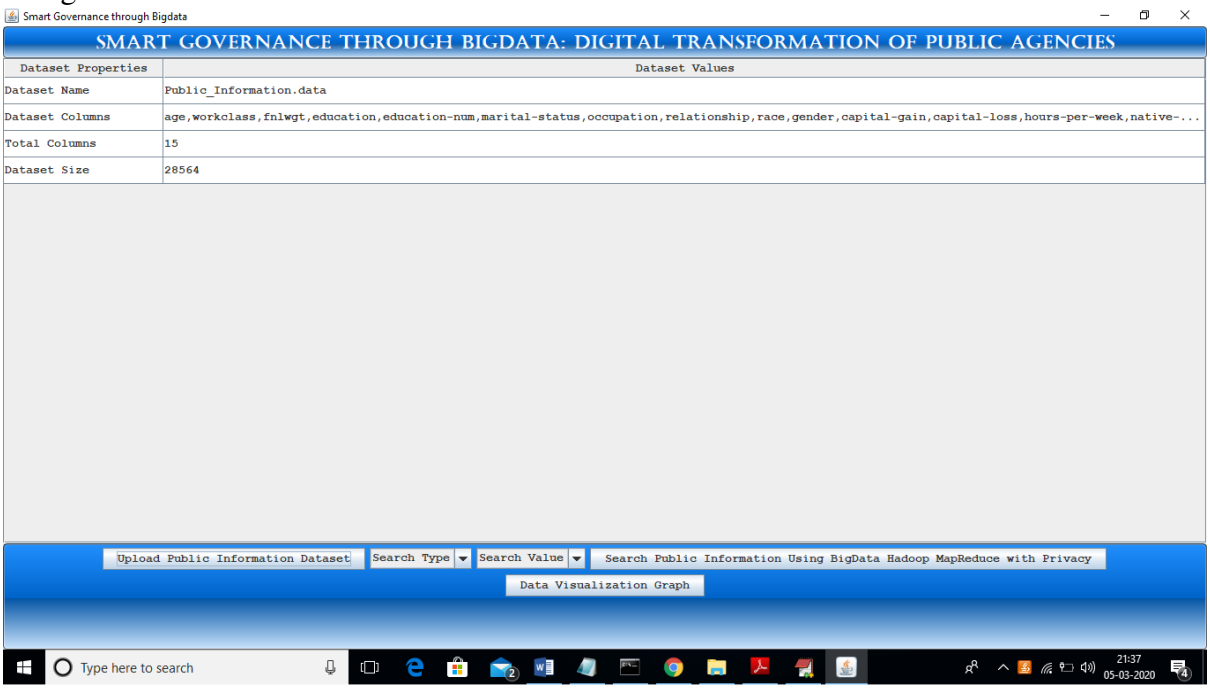
Double click on ‘run.bat’ file to get below screen



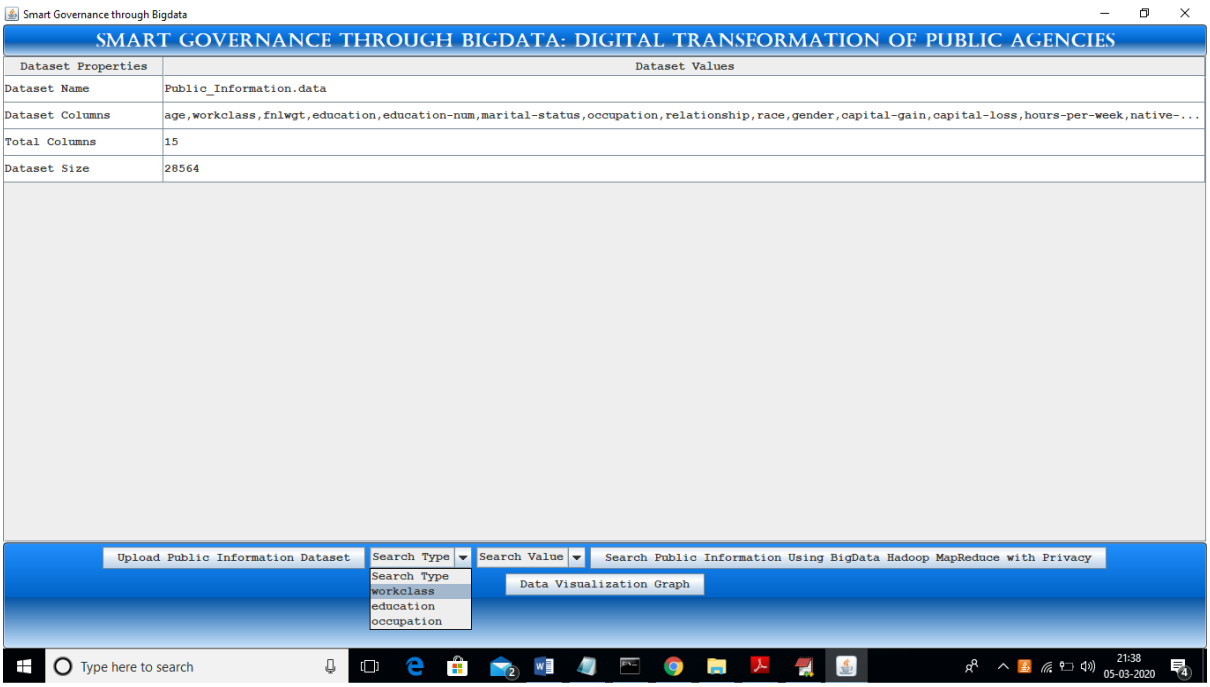
On the above screen click on the 'Upload Public Information Dataset' button and upload public data



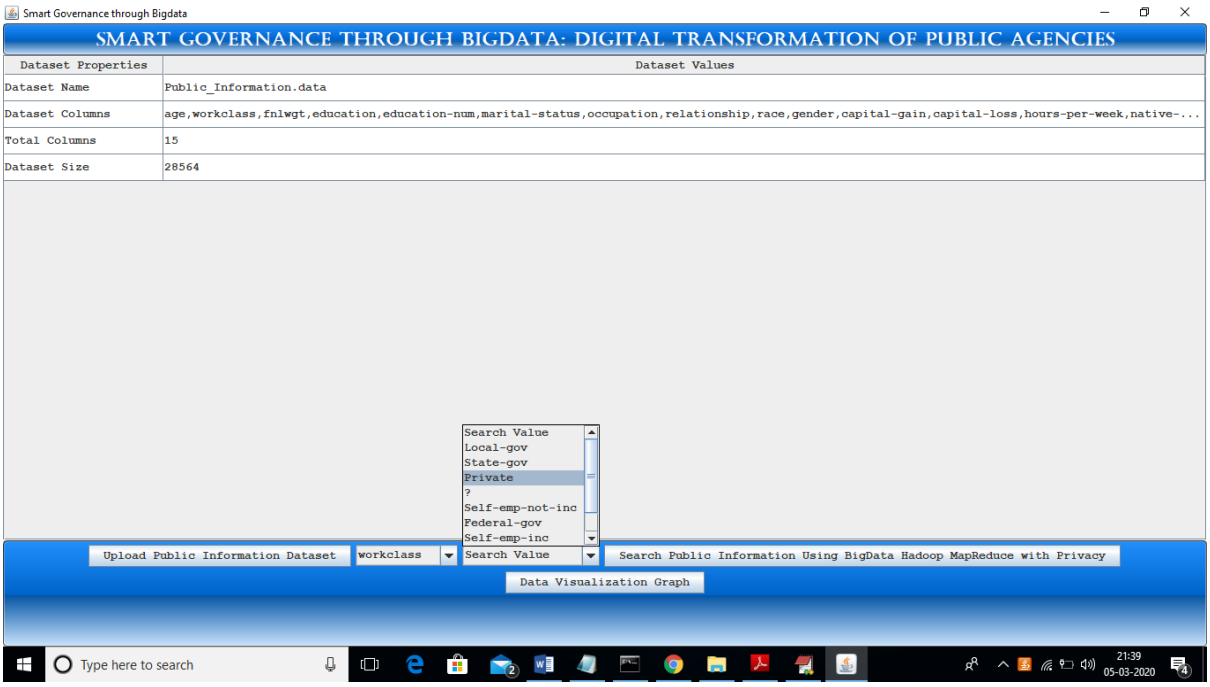
In the above screen, I am uploading the 'public information. data' file and after uploading dataset will get the below screen



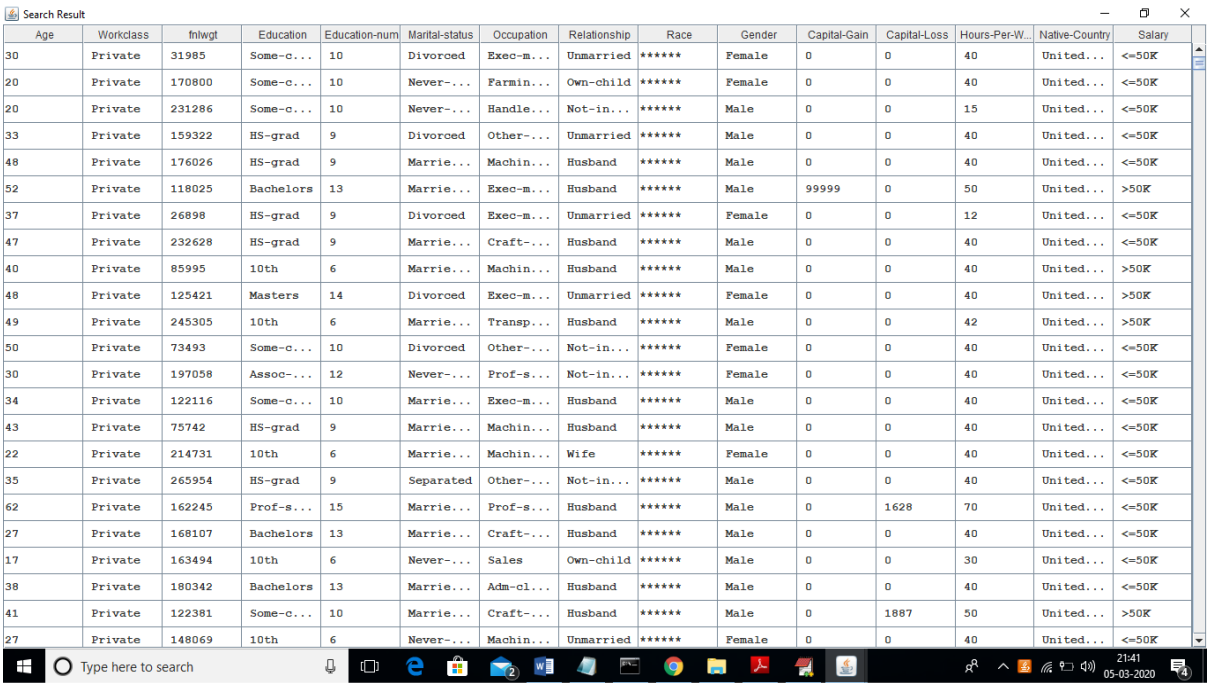
In the above screen, we can see dataset size, column names, and the number of columns. Now select any search type and choose search value to perform search operation on a dataset using apache HADOOP MapReduceBigdata technique



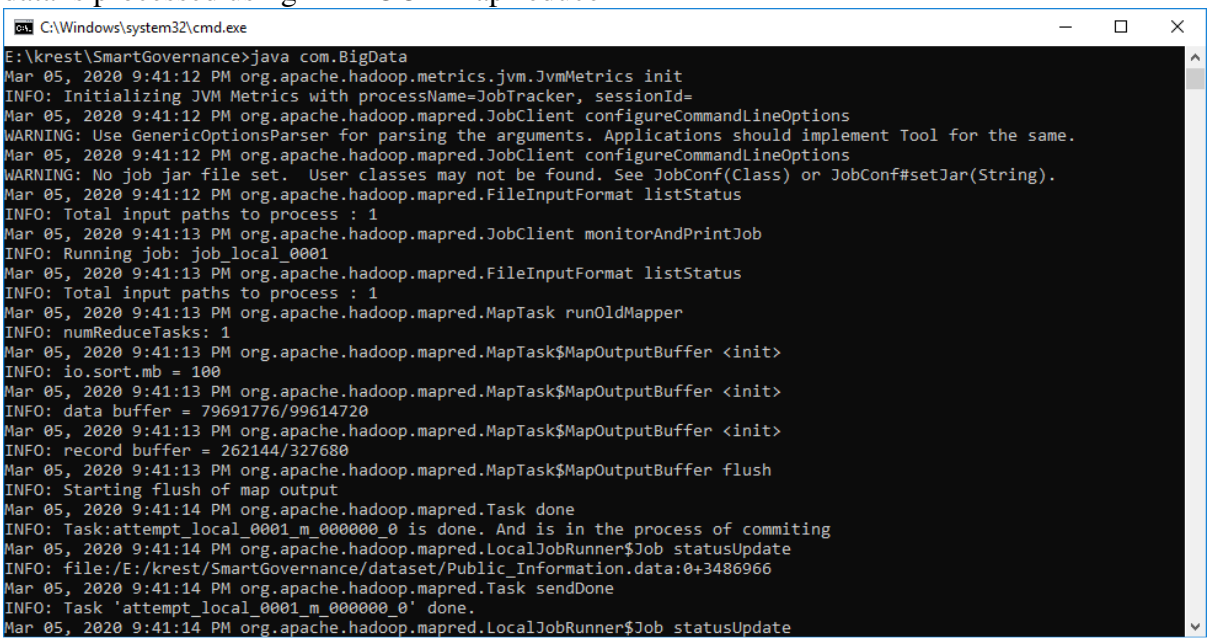
In the above screen, I am selecting search type as 'work class and after selecting that we will get all types of work class in the second dropdown



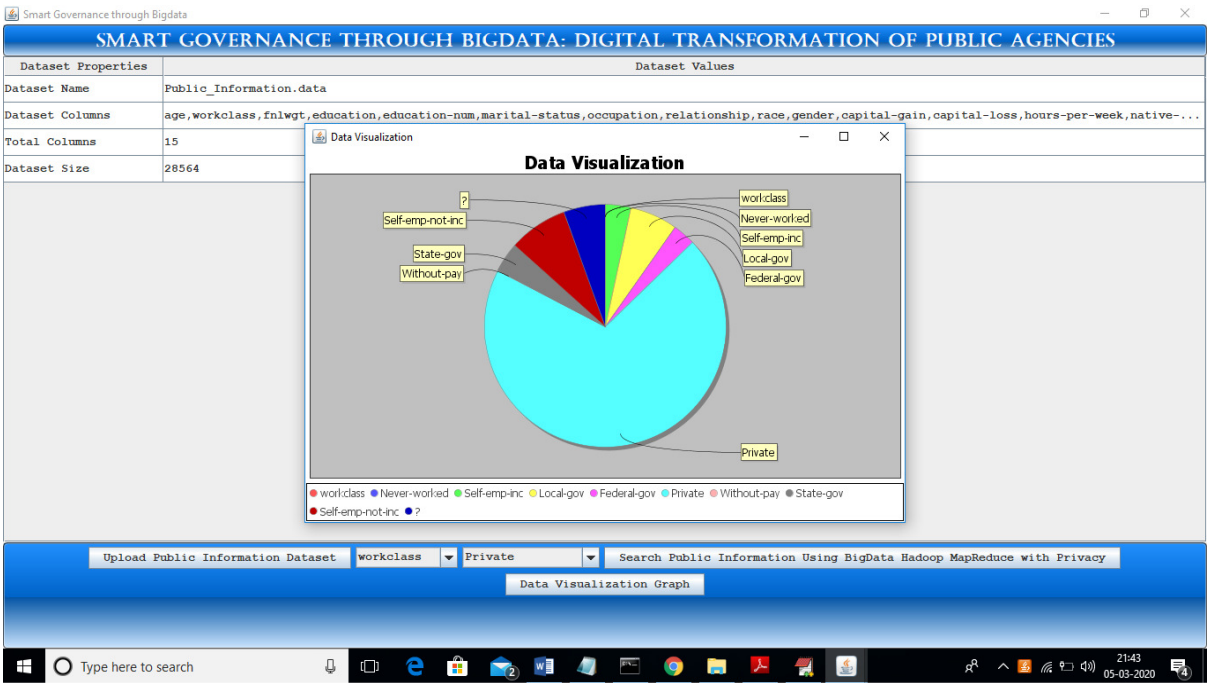
In the above screen from the second dropdown, I am selecting 'Private' value which means I want to search all peoples who are working under 'Private Work Class', and below are the search results. After selection click on the 'Search Public Information Using BigDataHadoopMapReduce with Privacy' button to start search operation



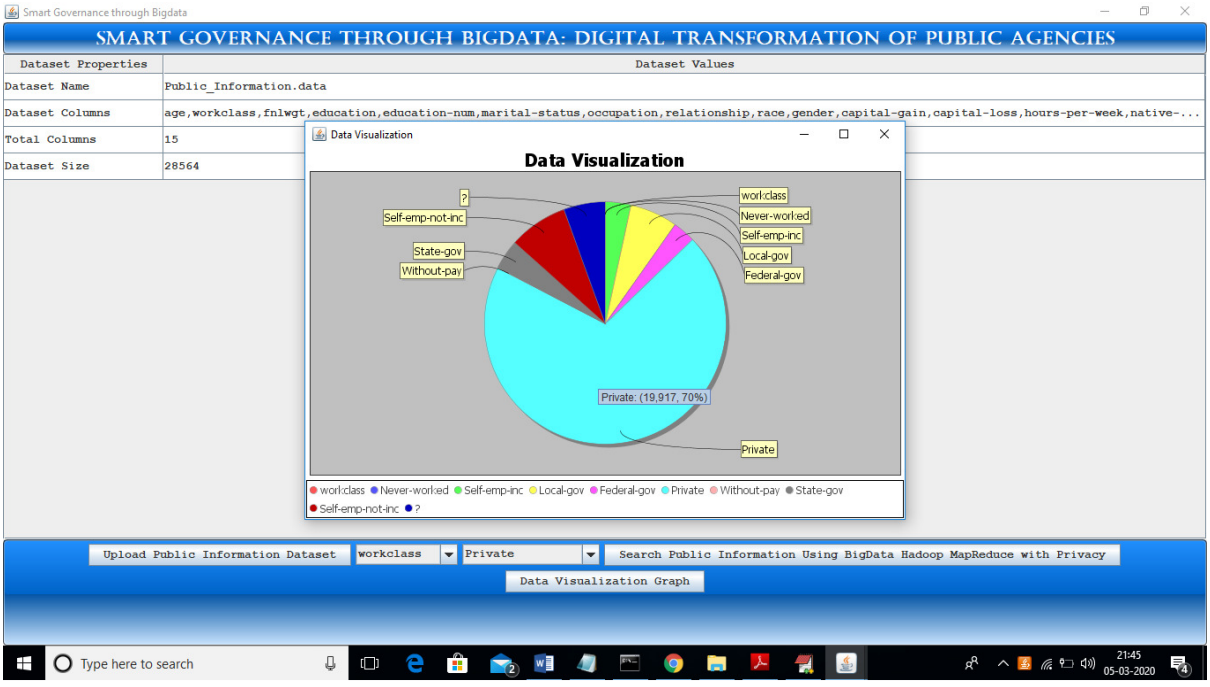
In the above screen, we can see all people's details who are working in the private sector, and in the above screen race attribute mark with * symbol to provide privacy to user data. Similarly, u can select other attributes and perform the search operation. In the below screen, we can see this data is processed using HADOOP MapReduce



Now if u want to visualize this data using a graph then click on the 'Data Visualization Graph' button to get below graph



In the above graph, we can see clearly how many peoples are working in which sector. In the above graph?means don't know the working class of that much percentage peoples. If u want to know the count or percentage of peoples in which work class then put the cursor on that graph area.



On the above screen when I put the cursor the application showing the total number of peoples and the percentage working in that class.

CONCLUSION

This study attempts to explore the suitability of big data technologies for smart governance in public agencies. It is driven by the research gap between the theoretical assumption of big data application and subsequently its implementation for smart governance in the public sector. This study suggests a conceptual model which explains how data will be collected from various sources and followed a series of the procedure by maintaining a certain indicator that explains the measurement of the standard of the system. It also explains the outcome after following a series of procedures. This study reveals that big data has big potential for smart governance in the public sector even though it is still in its initial stage. The government agencies can easily improve their public service delivery, day-to-day operators, policy-making decisions, and other value-added services to the citizen by holding a large amount of data with applying big data analytics. But the privacy of the citizen should be maintained strictly and priority-based to minimize the risks, threats, and challenges. This study also explores that the public sector agencies are not fully ready to adopt this technology due to the scarcity of data, uncertainty, and lack of efficiency of the administrators and policymakers. It suggests that every government agency should adopt the big data technology for reducing corruption, threat, and challenges and increasing efficiency, accountability, and transparency which will help to become themselves transparent, accountable, and hassle-free public agencies.

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