Storing and Retrieving aadhar numbers in Binary Search Tree and using it as an Online Voting Platform

CSE2003- DSA PROJECT REPORT
(J Component)

submitted by

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in partial fulfillment for the award of the degree of

B. Tech

in

SENSE

Vellore-632014, Tamil Nadu, India

School of Computer Science and Engineering

March, 2018

ABSTRACT
We will Store and Retrieve Aadhar Data using Binary Search Tree.

In this project we will use Binary Search Tree to store Aadhaar Data. We will retrieve data stored that is Name and Age. We will check the age of the person and if his age is above 18 he is eligible and can cast vote.

Data Structure Used: Binary Search Tree

Language Used: C language

Compiler Used: Geany

1. INTRODUCTION

Voting as we all know is often associated with politics and is done more often using the manual approach where voters queue up to vote for their choices. Manual voting without any doubt exhibits chances of voting malpractices and other negative vices. Those and many other reasons triggered the need to shift from the manual voting system to a more sophisticated digitalized voting platform. Today, voting does not only stops at politics but also extends to other areas of human endeavours such as entertainment, sports, business, Student unions, classrooms, fashion and style and so on and so forth. The need to migrate from manual voting system to digital voting system has brought about efficiency, free and fair election and as well as time utilisation.Nowadays, vote count needs to be manually counted to declare the result of the elections, which is both time consuming and labour intensive.

We are using Binary Search Tree to store Aadhar Data as Aadhar Number is a 12 digit integer. Aadhar Data includes Name and age of the person. While giving vote the person will enter his aadhar number and if he is above 18 he can cast the vote. To exit the program 0 have to be pressed and the program will show the name of representative who wins the elections. Number of votes given to the representative will also be displayed.

Binary Search Tree is a node-based binary tree data structure which has the following properties:

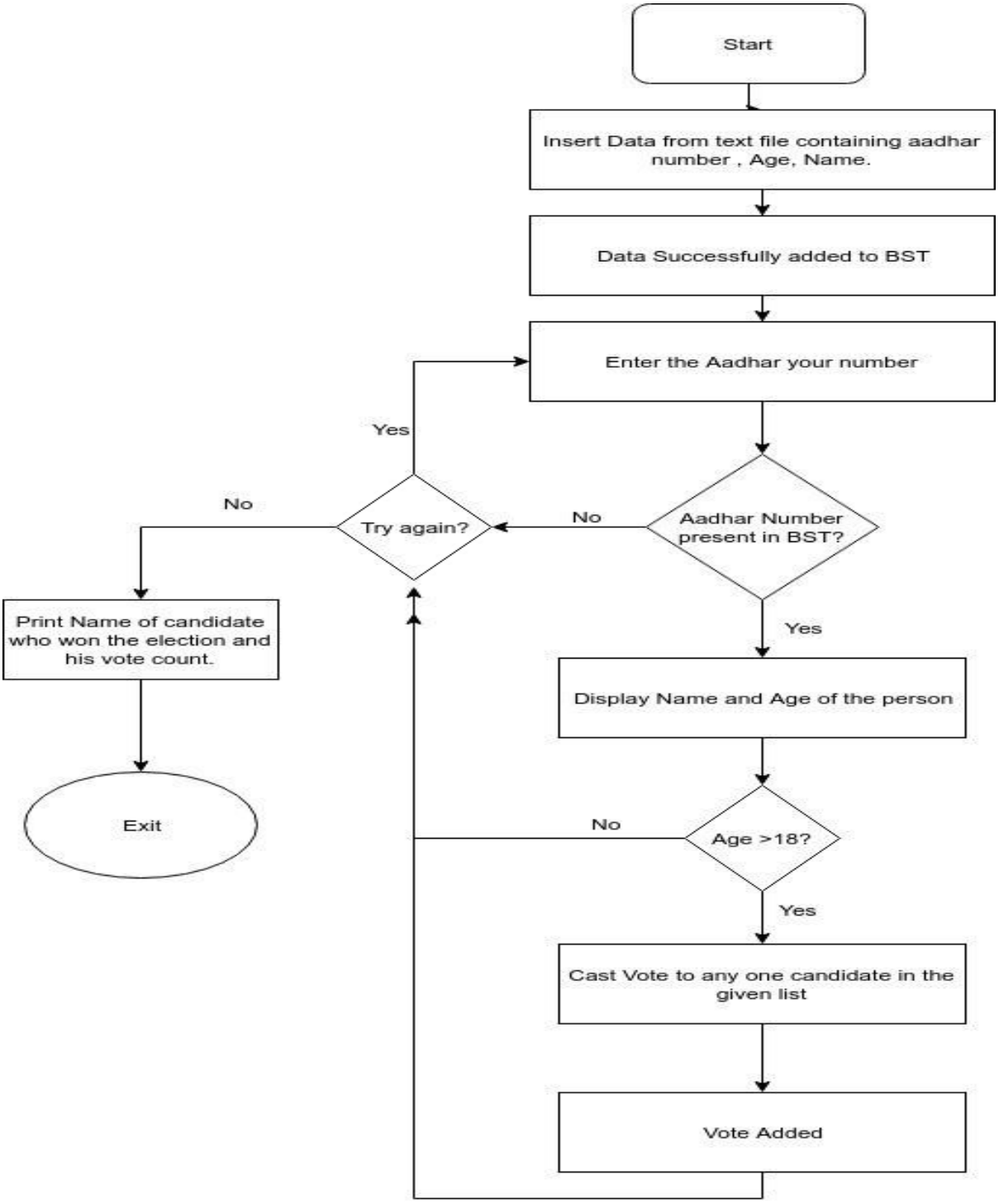
- The left subtree of a node contains only nodes with keys lesser than the node’s key.

- The right subtree of a node contains only nodes with keys greater than the node's key.
- The left and right subtree each must also be a binary search tree.

In this project a Search tree with 6 childs is used.

2. OVERVIEW OF THE PROPOSED SYSTEM

2.1. SYSTEM ARCHITECTURE



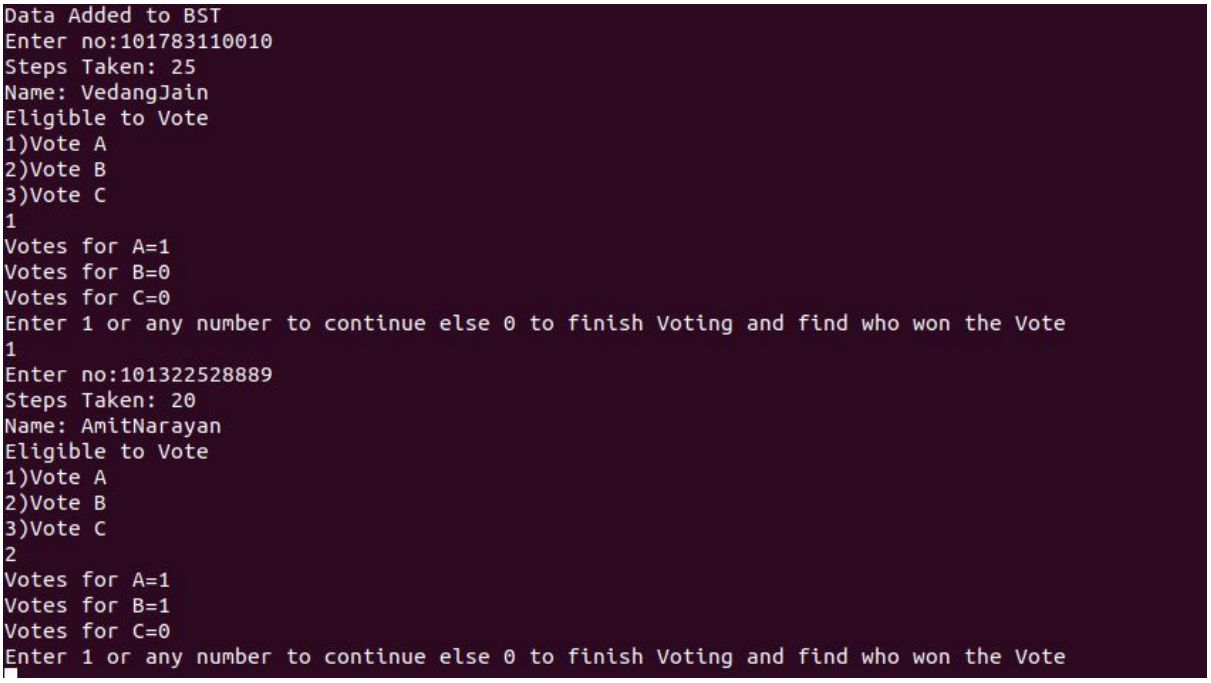
2.2. MODULE DECSCRPTION

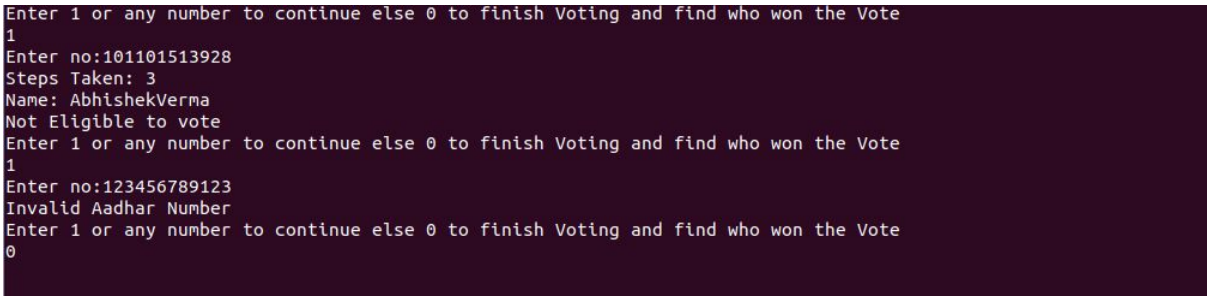
While inserting data we used 6 children in the tree. If in given value is less than the root value it goes to left child else to right child. If left value is not NULL then if value if less than left then value goes to left_left else left_right. Same is done if right is not NULL.

While Searching if the input aadhar number is not present in the data then "Wrong Input" is printed else it will check if the age of person is above 18 or not. Then, the user will input the party number whom he/she wants to give vote.

At the end, Name of the winner of elections will be printed with the number of votes.

3. RESULTS AND DISCUSSION





4. CONCLUSION

In this project we successfully implemented online voting platform using Search Tree with 6 Childs (Modified Binary Search Tree). We used comparison to search for the Aadhar Data rather than traversing through the tree. This reduces Steps the the half. To implement Binary Search tree we used linked implementation. By implementing this project we can make people vote by sitting in their home. Also, by using this method we will get the name of winner instantly.

REFERENCES

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