

Jobsheet 3

📄 Subject	Data Structure and Algorithm
📄 Lecturer	Imam Fahrur Rozi ST. MT.
📄 Type	Assignment
📄 Semester	Semester 2
📅 Time	@March 16, 2023
📎 Files & Media	

4. Code

```
package Asg;

public class CandidateVotes
{
    public int element;
    public String[] votes;

    public CandidateVotes(int element)
    {
        this.element = element;
        votes = new String[element];
    }

    public String votesCount(String[] votes, int left, int right)
    {
        String result = "";
        if (left == right)
        {
            result = votes[left];
        }
        else
        {
            int mid = (left + right) / 2;
            String rightResult = votesCount(votes, left, mid);
            String leftResult = votesCount(votes, mid + 1, right);
        }
        return result;
    }
}
```

```

public String votesPrint()
{
    String voteSelected = "";
    int num = 0;
    for (int i = 0; i < element; i++)
    {
        int count = 0;
        for (int j = 0; j < element; j++)
        {
            if (votes[i].equals(votes[j]))
            {
                count++;
            }
        }
        if (count > num)
        {
            num = count;
            voteSelected = votes[i];
        }
    }
    return voteSelected;
}
}

```

```

package Asg;

import java.util.Scanner;

public class CandidateVotesMain
{
    public static void main(String[] args)
    {
        Scanner sc = new Scanner(System.in);
        System.out.print("Input the number of candidate: ");
        int candNum = sc.nextInt();
        CandidateVotes vot = new CandidateVotes(candNum);
        vot.element = candNum;

        for (int i = 0; i < vot.element; i++)
        {
            System.out.print("Input the name from the vote number " + (i+1) + ": ");
            vot.votes[i] = sc.next();
        }

        vot.votesCount(vot.votes, 0, vot.element - 1);
        System.out.println("The winner for the election is " + vot.votesPrint());
    }
}

```

result

```
Input the number of candidate: 8
Input the name from the vote number 1: Haris
Input the name from the vote number 2: Dian
Input the name from the vote number 3: Haris
Input the name from the vote number 4: Rani
Input the name from the vote number 5: Bisma
Input the name from the vote number 6: Haris
Input the name from the vote number 7: Haris
Input the name from the vote number 8: Haris
The winner for the election is Haris
```