UNIVERSITY OF MUMBAI

A DISSERTATION REPORT ON

“MARKSHEET GENERATOR USING JAVA”

SUBMITTED IN PARTIAL FULFILMENT FOR

THE REQUIREMENTS OF THE DEGREE

BACHELOR OF ENGINEERING

IN

COMPUTER ENGINEERING

GROUP MEMEBERS

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UNDER THE GUIDANCE OF

PROF.PRAJAKTA PISE

DEPARTMENT OF COMPUTER ENGINEERING

G.V. ACHARYA INSTITUTE OF ENGINEERING AND TECHNOLOGY

UNIVERSITY OF MUMBAI

2020-21

DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Jayesh Bhalchandra Patil(36)_____

Amey Anil Ratnaparkhi(40) _____

Yash Damodar Shettigar(47)_____

Dipak Dasharath Zad(58)_____

Date :

Place : SHELU

PROJECT REPORT APPROVAL FOR D.S.E.

This project report entitled **"MARKSHEET GENERATOR USING JAVA"** by **"Jayesh B Patil" (36), "Amey A Ratnaparkhi" (40), "Yash Damodar Shettigar" (47)**, **"Dipak Dasharath Zad" (58)** is approved for the degree of **"Bachelor of Computer Engineering".**

Examiners

1._____

2. _____

Date :

Place :SHELU

CERTIFICATE

This is to certify that the project entitled **"MARSHEET GENERATOR USING JAVA"** is a bonafide work of "**Jayesh B Patil" (36), "Amey A Ratnaparkhi" (40),** "**Yash D Shettigar" (47), "Dipak D Zad"(58)** submitted to the University of Mumbai in partial fulfillment of the requirement for the award of the degree of **"Undergraduate "** in **"Bachelor of Computer Engineering".**

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Project Guide	Head of Department
Department of Computer Engineering	Computer Engineering
G.V.A.I.E.T	G.V.A.I.E.T

Prof. Rajashri Chaudari	Dr. Prashant Sonare
Project Co-ordinator	Principal
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- Group Members
- Jayesh B Patil (36)
- Amey A Ratnaparkhi (40)
- Yash D Shettigar (47)
- Dipak D Zad(58)

TABLE OF CONTENT

ABSTRACT

The Marks sheet Generator is flexible for generating progress mark sheet of students. This system is mainly based in the database technology and the credit based grading system. The system is targeted to small enterprises, schools, colleges and universities. It can produce sophisticated ready-to-use mark sheet, which could be created and will be ready to print. The Marks sheet is developed in the form of easy and to understand by the users in the form of Applet. Marks sheet generation system can be used in universities to automate the distribution of digitally verifiable mark-sheets of students. The Program generates and shows the total of student marks along with the percentage % in properly listed manner. The project aims at developing a marks sheet generation system which can be used in universities, schools and users to calculate the distribution of digitally verifiable student result mark sheets. The system accesses the students' results information from the institute student database and generates the mark sheets in 'applet' which is quick and fast in nature and it can run in any system which can run Java.

INTRODUCTION

The Marks sheet Generator System will help the user to generate a Progress Marks sheet of students. This system allows the digital automation of the mark-sheets of the students. We are able to see the individual candidate's results separately. It will help the user to calculate the percentage of students using their marks as input data in the project. The system has been designed to carry out the mark analysis process in an educational institution being more specific this system is targeted to small enterprises, schools, colleges and universities. Marks sheet generation system can be used in universities to automate the calculation & announcement of digitally verifiable mark-sheets of students. The project aims at developing a marks sheet generation system which can be used in universities to automate the distribution of digitally verifiable student result marks sheets. To simply put, system is to provide the mark-sheet for marks based marks sheet generating system in user friendly and secure manner. The System takes input from user of student's exam & result information and displays the total marks scored in each subjects in both (separate subjects and also total marks with percentage). The project is made up of pure coding in JAVA, HTML languages using Applet library, (Abstract Window Toolkit) AWT library etc.

MOTIVATION

Our Project is heavily inspired by all the hardworking teaching staff which manually counts the marks & percentage of students, so to make it easy and faster We have developed the Marks sheet Generator to simplify and provide the Marks sheet by just entering the students marks in just one simple click. So to ease work of our hard-working teaching staff and provide them hassle-free work, we decided to develop the project. The project aims at developing a marks sheet generator which can be used in universities to automate the distribution of digital form of student mark sheets. The Marks entered by user are then calculated by logic provided in JAVA code and generated mark sheets are printed in Applet viewer which provides the quick and faster generation of Marks sheet. We also considered the simplicity and reliability of the Project to make it easy to understand, so any one with a basic idea of computer can generate the marks sheet easily. This Project can run on any basic computer which can run JAVA, so it can almost on all computer system. The Life-Cycle of our project is unlimited so it can generate the marks sheet as long as the Code is present in the system. Even by doing future enhancement we can also provide help to those student who require urgent copy of digital marks sheet and so that they do not require to fill any application in college/school, so that it will ease off work-load of teaching staff and also student.

Targeted users:

- Students
- Teacher/Office staff

SYSTEM REQUIREMENT SPECIFICATION

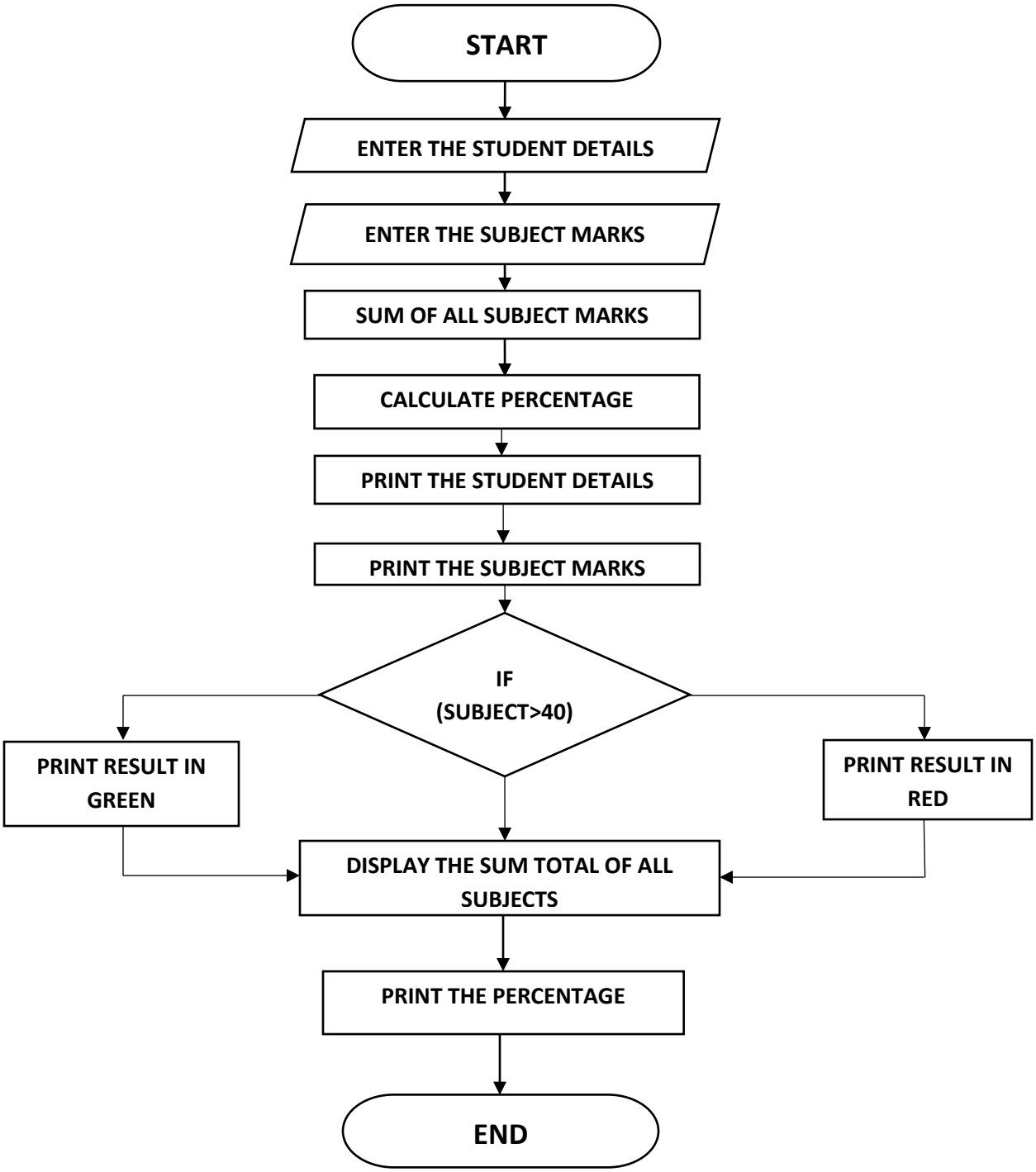
Hardware requirements:

- 1.5 GHz Pentium 4 processor or other compatible
- 512 MB – 1 GB RAM
- Color Monitor
- Keyboard
- Mouse

Software requirements:

- Operating System : Microsoft Windows
- Application Software : JDK 1.6.0_45
  JRE 6.0.450.6

FLOWCHART


START
ENTER THE STUDENT DETAILS
ENTER THE SUBJECT MARKS
SUM OF ALL SUBJECT MARKS
CALCULATE PERCENTAGE
PRINT THE STUDENT DETAILS
PRINT THE SUBJECT MARKS
IF
(SUBJECT>40)
PRINT RESULT IN GREEN
PRINT RESULT IN RED
DISPLAY THE SUM TOTAL OF ALL SUBJECTS
PRINT THE PERCENTAGE
END

ALGORITHM

1. Start
2. Enter the exam and student details
3. Enter the subject marks
4. Sum of all subject marks (total=s1+s2+s3+s4)
5. Get percentage (percentage=total/4)
6. Print the exam and student details
7. Print the subject marks
8. if any (subject>40) print result in 'green'
9. else print result in 'red'
10. Display the Sum total of all subjects
11. Print the Percentage
12. End

WORKING

In the system, the user enters the student's name & marks of each subject. That associated information will be computed or calculated in the system. In this system, all subject's marks sum total is calculated automatically. As described in the system after the marks are entered it not only calculates their sum total , percentage but also generates a marks sheet having exam details, student details and marks, percentage scored by him/her and also shows if student is failed or pass by displaying the result in green or red. It detects the student's result status by showing result in green if passed and showing result in red if failed by using a simple logic that if that student is failed in any one or more subject by scoring less than 41marks then the system will show the result status of that student in red which indicates fail and pass even if he/she scores just passing marks which is 41 in all subject. This information can be directly added to the original marks sheet of student or can be added to database of institute or company. After inserting student's marks of all subjects by the user the mark sheet can be generated by clicking the "View student result" button and can be viewed by anyone. Then system generates a raw mark sheet of student or we can say processed & calculated data to be added in original marks sheet.

IMPLEMENTATION

We have developed a System to analysis and generate marks sheet of student based on the curriculum that represent the Student academic data of student performance. Only user has to enter the Student's Name & Subject Marks of each Subject in the system and all information provided by the user will be calculated or computed and shown in one system. Benefit of this system is it collects or pursue all data regarding marks from Data Provided by user and shows on one platform and when all the provided information by student is calculated it also shows the percentage of student depending on information provided by user. This system is developed with the help given software: JDK 1.6.0_45, JRE 6.0.450.6

We have created a program or codding required for Developing or creating a system on our basic Notepad present on the window while developing the codding for the program we have used several Packages like Java, applet, awt.event, html code, etc. for Running / Executing. We have used basic command Compiler and then we have enter the path in command prompt for executing our System and after entering the path with the help of applet viewer the System is generated successfully on applet viewer. After executing the System on applet viewer user has to enter the Examination year in Examination, Name in the Name Box and Equivalent marks of student score by him them press the "View Student Result" button and all information will appear in the "Student Marks sheet" column user will appear Examination Marks, Student Name, Student's Marks and at bottom Percentage is also calculated on the basis of information given by user.

CODING

```
import java.awt.*;
import java.applet.*;
import java.awt.event.*;

public class Marksheet extends Applet implements ActionListener
{
	Label lblTitle,lblExam,lblName,lblJava,lblSEN,lblCSE,lblOSY;
	TextField txtExam,txtName,txtJava,txtSEN,txtCSE,txtOSY;
	Button cmdReport;
	int total,resultStatus;
	float avg;
	Font f1;
	public void init()
	{
		f1 = new Font("Times New Roman",Font.BOLD,18);
		setLayout(null);
		lblTitle=new Label("Enter Students Details");
		lblExam=new Label("Examination:        ");
		lblName=new Label("Name:               ");
		lblJava=new Label("JAVA:               ");
		lblSEN=new Label("SOFTWARE ENGINEERING: ");
		lblCSE=new Label("COMPUTER SECURITY:    ");
```

```
lblOSY=new Label("OPERATING SYSTEM:     ");


txtExam=new TextField(20);

txtName=new TextField(25);

txtJava=new TextField(3);

txtSEN=new TextField(3);

txtCSE=new TextField(3);

txtOSY=new TextField(3);


cmdReport=new Button("View Student Result");

lblTitle.setBounds(100,0,200,20);

lblExam.setBounds(0,50,170,20);

txtExam.setBounds(190,50,100,20);

lblName.setBounds(0,75,170,20);

txtName.setBounds(190,75,190,20);

lblJava.setBounds(0,100,170,20);

txtJava.setBounds(190,100,40,20);

lblSEN.setBounds(0,125,170,20);

txtSEN.setBounds(190,125,40,20);

lblCSE.setBounds(0,150,170,20);

txtCSE.setBounds(190,150,40,20);

lblOSY.setBounds(0,175,170,20);

txtOSY.setBounds(190,175,40,20);


cmdReport.setBounds(100,225,150,30);
```

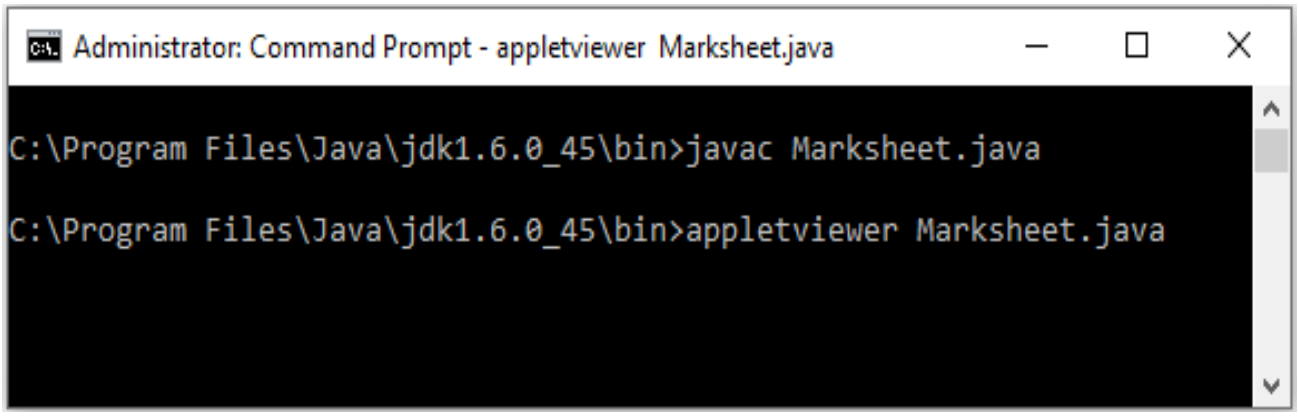
```
        add(lblTitle);
        add(lblExam);add(txtExam);
        add(lblName);add(txtName);
        add(lblJava);add(txtJava);
        add(lblSEN);add(txtSEN);
        add(lblCSE);add(txtCSE);
        add(lblOSY);add(txtOSY);

        add(cmdReport);
        cmdReport.addActionListener(this);
}

public void actionPerformed(ActionEvent ae)
{
        try
        {
                int java=Integer.parseInt(txtJava.getText());
                int SEN=Integer.parseInt(txtSEN.getText());
                int CSE=Integer.parseInt(txtCSE.getText());
                int OSY=Integer.parseInt(txtOSY.getText());
                if((java>40 && SEN>40) && (CSE>40 && OSY>40))
                {
                        resultStatus=1;
                        total=(java+SEN+CSE+OSY);
                        avg=total/4;
```

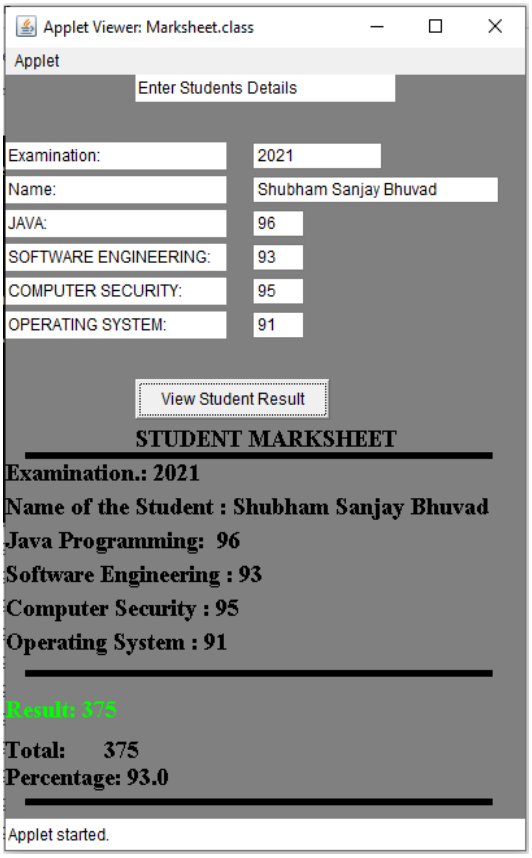
```
                }
                else{
                        resultStatus=0;
                        total=(java+SEN+CSE+OSY);
                        avg=total/4;
                }

        }
        catch(NumberFormatException e)
        {
        }
        repaint();
}
public void paint(Graphics g)
{
        g.setFont(f1);
        setBackground(Color.gray);
        g.setColor(Color.BLACK);
        g.fillRect(15,279,360,5);
        g.setColor(Color.BLACK);
        g.drawString("STUDENT MARKSHEET",100,275);
        g.drawString("Examination.: "+txtExam.getText(),0,300);
        g.drawString("Name of the Student : "+txtName.getText(),0,325);
        g.drawString("Java Programming:  "+txtJava.getText(),0,350);
        g.drawString("Software Engineering : "+txtSEN.getText(),0,375);
```

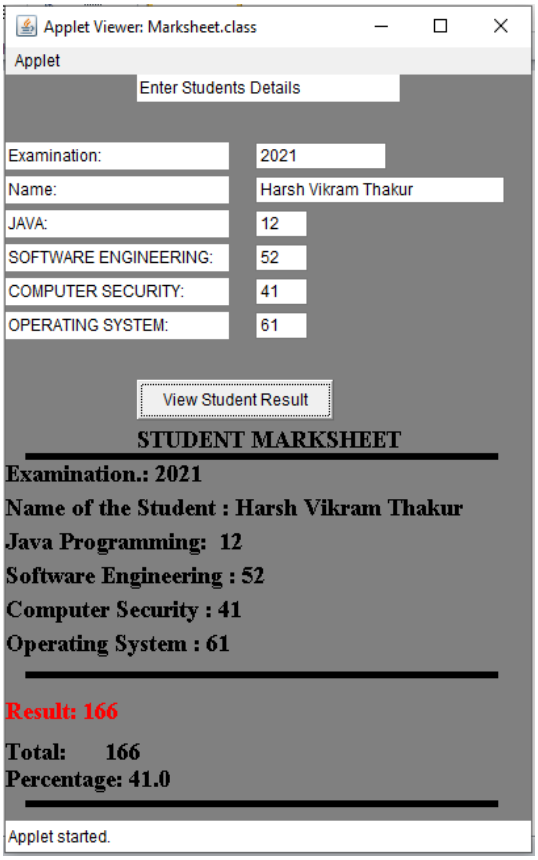
```
g.drawString("Computer Security : "+txtCSE.getText(),0,400);

g.drawString("Operating System : "+txtOSY.getText(),0,425);


g.setColor(Color.BLACK);

g.fillRect(15,440,360,5);

g.setColor(Color.BLACK);


if(resultStatus==1)

{

        g.setColor(Color.green);

        g.drawString("Result: "+total,0,475);

        g.setColor(Color.BLACK);

}

else{

        g.setColor(Color.red);

        g.drawString("Result: "+total,0,475);

        g.setColor(Color.BLACK);

}

g.drawString("Total:     "+total,0,505);

g.drawString("Percentage: "+avg,0,525);


g.setColor(Color.BLACK);

g.fillRect(15,535,360,5);


}
```

```
}


//HTML Code

/*

<html>

<Body><Applet code="Marksheet.class" height=550 width=400></applet>

</body>

</html>
```

SNAPSHOTS


Administrator: Command Prompt - appletviewer Marksheet.java
C:\Program Files\Java\jdk1.6.0_45\bin>javac Marksheet.java
C:\Program Files\Java\jdk1.6.0_45\bin>appletviewer Marksheet.java


Applet Viewer: Marksheet.class
Applet
Enter Students Details
Examination: 2021
Name: Shubham Sanjay Bhuvad
JAVA: 96
SOFTWARE ENGINEERING: 93
COMPUTER SECURITY: 95
OPERATING SYSTEM: 91
View Student Result
STUDENT MARKSHEET
Examination.: 2021
Name of the Student : Shubham Sanjay Bhuvad
Java Programming: 96
Software Engineering : 93
Computer Security : 95
Operating System : 91
Result: 375
Total: 375
Percentage: 93.0
Applet started.


Applet Viewer: Marksheet.class
Applet
Enter Students Details
Examination: 2021
Name: Harsh Vikram Thakur
JAVA: 12
SOFTWARE ENGINEERING: 52
COMPUTER SECURITY: 41
OPERATING SYSTEM: 61
View Student Result
STUDENT MARKSHEET
Examination.: 2021
Name of the Student : Harsh Vikram Thakur
Java Programming: 12
Software Engineering : 52
Computer Security : 41
Operating System : 61
Result: 166
Total: 166
Percentage: 41.0
Applet started.

ADVANTAGES

- User-Friendly (as user can easily use marks sheet generator as it has simple GUI created using applet, AWT).
- Requires less effort and time for calculations therefore error free.
- Unlimited life-cycle(system remains available as long as code remains in the computer system)
- Requires less computing storage & can run in low spec computer system that can run java.
- It is fast and accurate with calculations & computations can generate the marks sheet quickly.

DISADVANTAGES

- Future- enhancement is required as it does very few operations and displays a single small window.
- No security is available & has single user access, so it can be easily misused or is very less useful in real time applications.
- System doesn't stores the data, as it has no database or isn't connected to one.
- System only calculates percentage, sum and display them which can also be done on calculator or other applications.
- It has "java" file instead of "exe" file, therefore the source code can be modified.

FUTURE ENHANCEMENT

Being a Marks sheet Generation System, the system has lot of scope. It not only carried out work faster but also efficiently. A lot of manual work like addition of marks of all subject, calculating the percentage of students, decision making of whether he/she is pass or fail in the examination is reduced to large extent, But as we saw it still has so many limitations and problems to be fixed which we are planning to overcome in future by enhancing it by adding some features, security and fixing bugs which are given below.

1. Adding security login access, for security purposes and no one can misuse the system.
2. Multiple user login access which will be having different level of permission like admin can modify, student can view and response on his marks sheet.
3. Adding database so the system can collect data, store data, analyze data and perform operations.
4. Automatically processing data like searching, analyzing student's details from database.
5. An executable file will be provided to users /organization/institute so they no one can modify the source code.
6. Interface will be made more user friendly and attractive GUI, so it will easily understandable and can be handled by anyone faster.
7. Student's performance analysis & improvement suggestions & tips.
8. More complex calculation will be added.
9. And some more features will be added to the system.

FUTURE SCOPE

1. In the proposed system, there are various controls to provide user friendliness. Details can be accessed over the internet, and huge amount of data, records and information can be stored. It provides high level of security, and there is no risk of data mismanagement. The overall result processing system is easier, flexible and requires less time. Previously, data used to be inserted manually to analyze result.
2. The future scope is that data can be fetched, parsed in other formats like doc, csv, odt, etc. Visualization can be provided to represent data in graphical format. Various representation like pie chart, graph, etc.
3. The mark - sheet generator is to ensure an efficient certificate management using huge data and to provide mark - sheets for credit based grading system (CBGS) in very user friendly manner by not making it very complex.
4. The system being automated and generalized, the system ensures to reduce manual errors by reducing manual efforts. An added asset to the feature of system that it aims at improving and easing out the work of the existing system in very sophisticated way the technology is rapid and able to generate, display the mark - sheets of the students. The system provides advance reaction capabilities and automatic operator of the internal calculation based on university rules with the information from the database. It also works with various standards of the mark sheets.

CONCLUSION

The goal of the system is achieved and difficulties are solved. The project is built such that it is user friendly. Analysis of the scoring system it shows by the grade wise result of individual subject and final result also display grade wise depending on its range of marks. The project can be easily used in college for college result analysis of student. It reduces time which required for manual calculation. This system helps to calculate result fast so it optimizes the manpower. The Marks sheet Generator System will help the user to generate a Progress Marks sheet of students. We are able to see the individual candidate's results separately. It will help the user to calculate the percentage of students using their marks as input data in the project. This system allows the digital automation of the mark-sheets of the students. The System takes input from user of student's exam & result information and displays the total marks scored in each subjects in both (separate subjects and also total marks with percentage). The project is made up of pure coding in JAVA, HTML languages using Applet library, (Abstract Window Toolkit) AWT library etc. The system has been designed to carry out the mark analysis process in an educational institution being more specific this system is targeted to small enterprises, schools, colleges and universities. Marks sheet generation system can be used in universities to automate the calculation & announcement of digitally verifiable mark-sheets of students. The project aims at developing a marks sheet generation system which can be used in universities to automate the distribution of digitally verifiable student result marks sheets. To simply put, system is to provide the mark-sheet for marks based marks sheet generating system in user friendly and secure manner.

REFERENCES

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- And some blogs