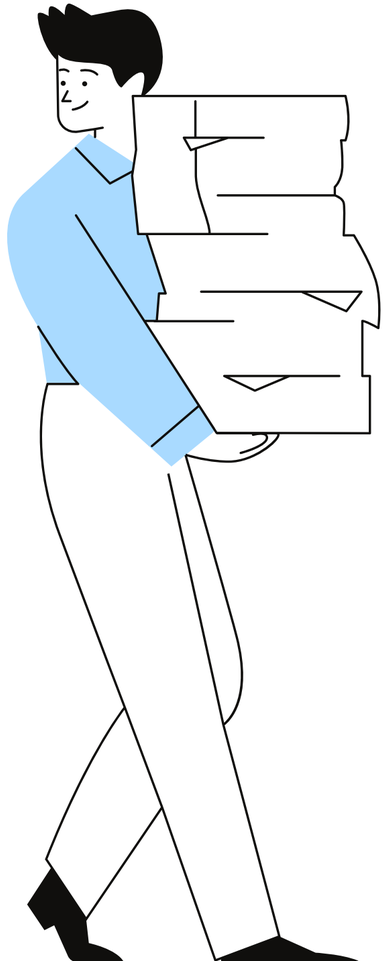
THE ULTIMATE GRADE CALCULATOR WITH PERSONALISED FEEDBACK FOR SCHOLASTICS ELEVATION

A JAVA PROJECT

Feedback-based CGPA calculation is a more comprehensive approach to evaluate academic performance compared to the traditional CGPA calculation. The feedback-based CGPA takes into account not only the final grade received in a course but also provide feedback about the student performance .



Presented by : -
Prabhu Pathak

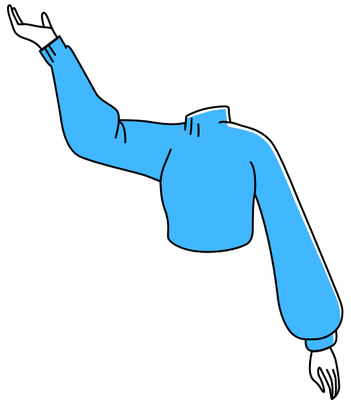
Introduction

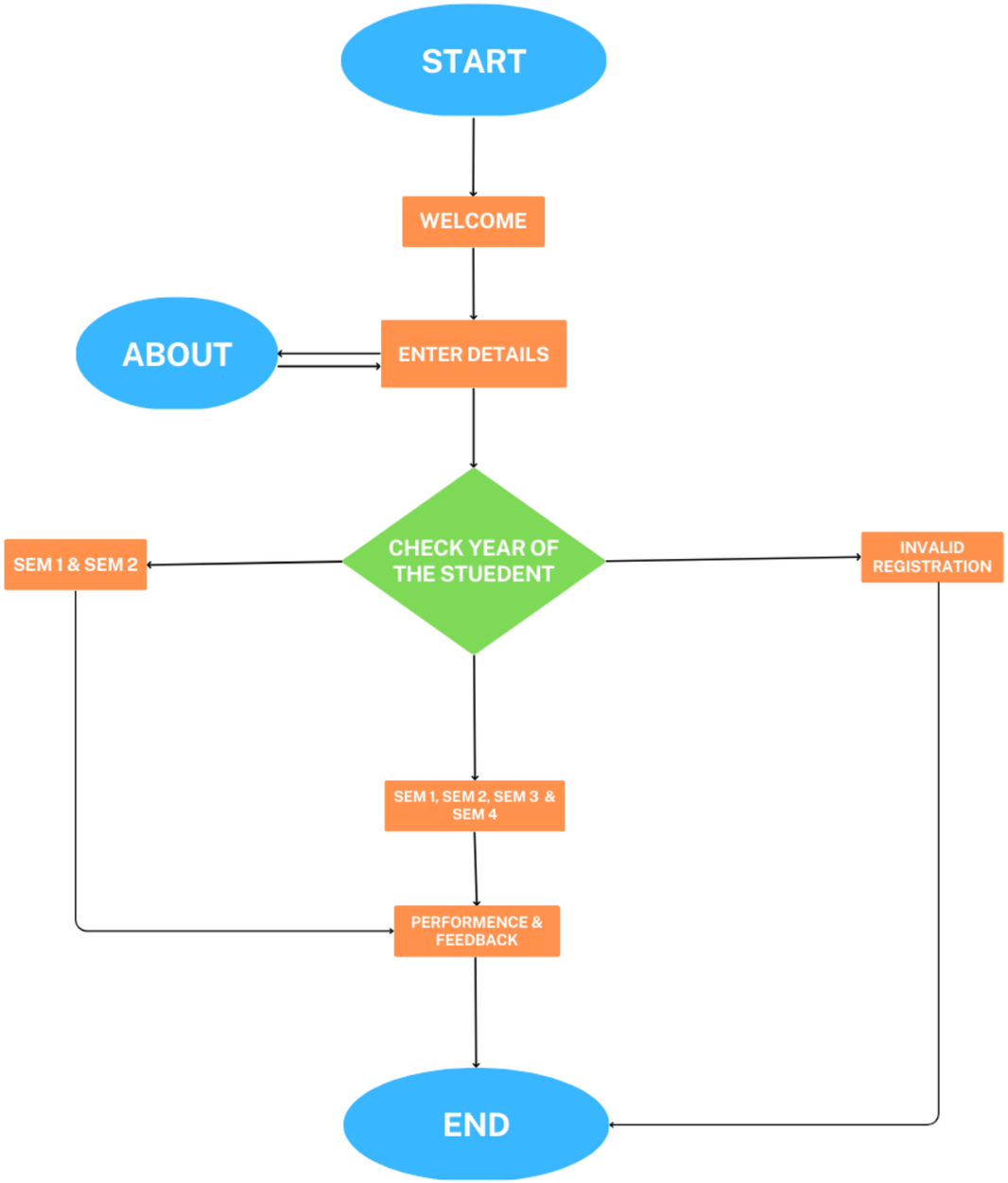
IDEA : A Feedback-based CGPA (Cumulative Grade Point Average) calculator is a tool that helps students determine their academic performance by calculating their semester-wise and overall GPA based on their course grades or credit hours.

IMPLEMENTATION : The calculator takes in the marks earned in each course, along with the credit hours for each course. Then, it calculates the grades earned for each course, which is determined by multiplying the credit hours by the marks for each subject and gives the grades for each subject in return.
Once the marks for all courses are calculated, the CGPA is determined by dividing the total GPAs by the total number of semesters The CGPA is a measure of a student's academic performance over the duration of their studies.

INNOVATION : Feedback-based CGPA calculators go beyond just calculating a student's CGPA. They also provide feedback on areas where the student may need improvement. For example, if a student's CGPA is lower than their desired goal, the calculator may suggest strategies for improving their grades, such as studying more effectively, seeking help from a tutor, or taking advantage of academic resources offered by their institution.
Overall, a feedback-based CGPA calculator is a useful tool for students to monitor their academic progress, identify areas for improvement, and set goals for achieving academic success.

FLOW CHART...




START
WELCOME
ABOUT
ENTER DETAILS
CHECK YEAR OF THE STUEDENT
SEM 1 & SEM 2
INVALID REGISTRATION
SEM 1, SEM 2, SEM 3 & SEM 4
PERFORMENCE & FEEDBACK
END

FEATURES of the Project

1 Self Modification + Auto Grading

GRADE MENTOR is powerful CGPA calculator in which any 1st/2nd year CSE student of university can enter their marks subject-wise of any semester with credit hours which can be modified each time while calculating with automated grading system (grades get automatically assigned immediately after getting GPA)

2 User Friendly & Easy to use

This Project is very easy to use, since it is subject wise icon based with choosing the semester on the very first page which can directly calculate the GPA and easy to understand because of different frames for respective semesters, plus it has "ABOUT" button which describes one how the CGPAs are actually getting calculated.

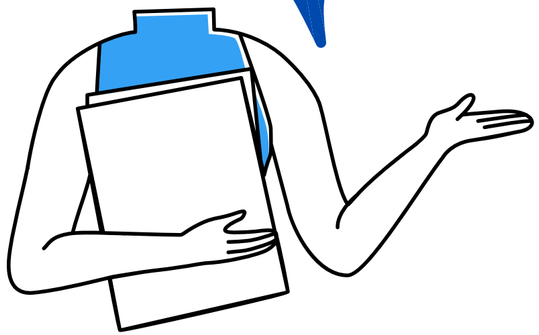
3 Encourages improvement

The feedback-based CGPA encourages students to improve their academic performance by providing them with constructive feedback. This feedback helps students understand their strengths and weaknesses and gives them specific areas to work on.

4 Facilitates self-reflection

The feedback-based CGPA encourages self-reflection and helps students identify areas for improvement. This process of self-reflection can be a valuable tool for personal and academic growth.

SCOPE



1. **Integration with academic systems**

The CGPA calculator may be integrated with existing academic systems such as learning management systems or student information systems to automatically retrieve grades and credit hours for each course, eliminating the need for manual data entry.

2. **Customization**

Users may be able to customize the CGPA calculator based on their credit hours grading system or program requirements.

3. **Graphical representation**

The CGPA calculator includes the very basic graphical representations of a student's subjects with icons using NetBeans and cumulative GPA.

4. **Comparison and benchmarking**

The CGPA calculator may include features that allow students to compare their academic performance with that of their peers or to see how their performance stacks up against historical data or institutional benchmarks.

5. **Recommendations and feedback**

The CGPA calculator may provide personalized recommendations and feedback to students based on their academic performance and progress, such as suggestions for improvement or areas where they are excelling.

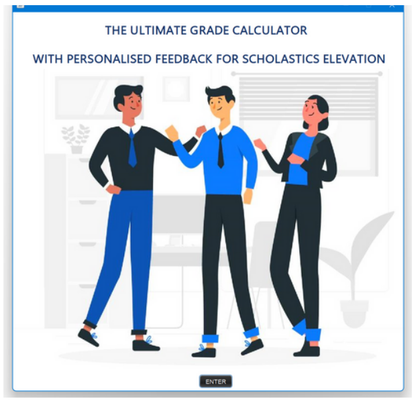
MODULES BREAKDOWN

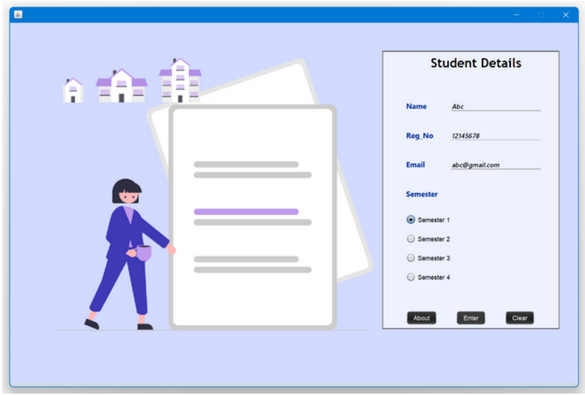
This Project Work is divided into 4 modules:

1

STUDENT DETAILS

Student Details is the window which will be appeared after entering the welcoming page which is also the part of this module where one need to enter his/her name, email, registration number. And choose the semester which he/she wants to enter the marks of. After clicking Enter button he/she redirects to another window where he'll be entering marks.

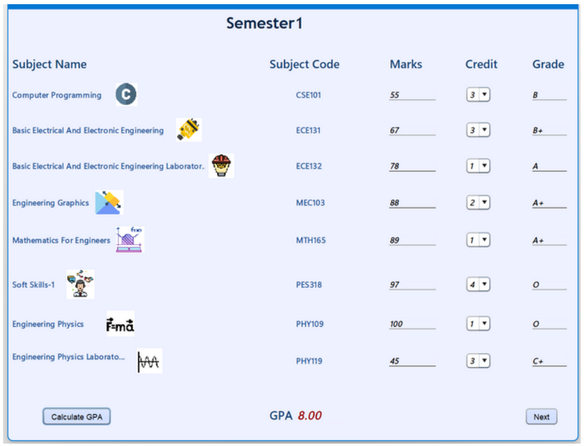


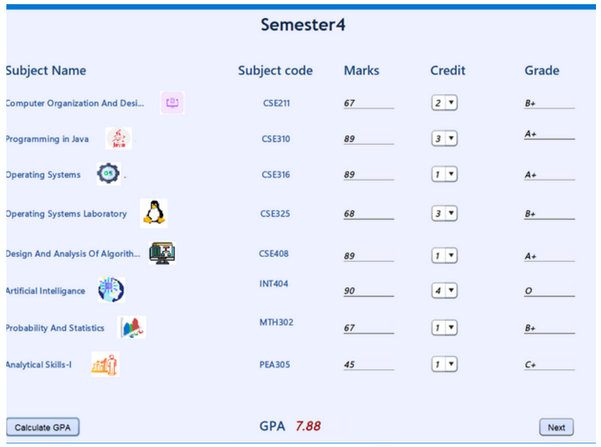


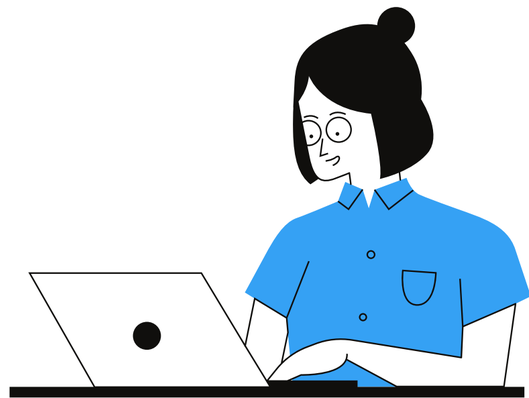
2

MARKS INPUT

Marks Input, Where one will be entering his marks and credit hours and directly getting his/her GPA calculated and this module is comprised of 4 windows of each semester.







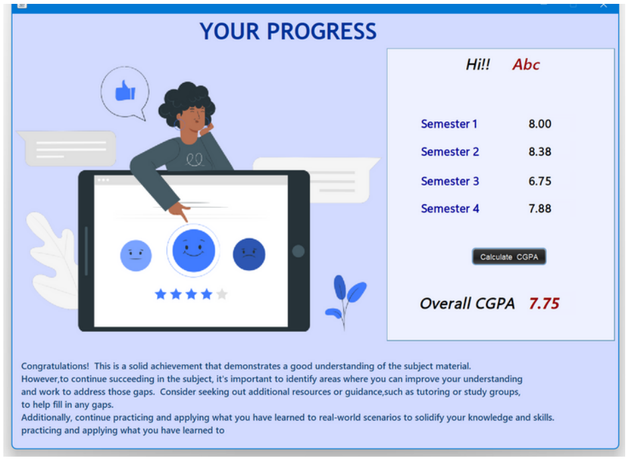
MODULES BREAKDOWN

This Project Work is divided into 4 modules:

3

FEEDBACK PAGE

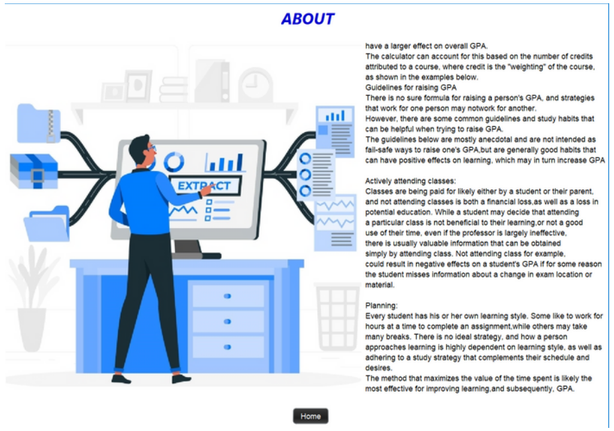
Feedback module, where one will be getting his CGPA calculated with the feedback based on his performance with his details.

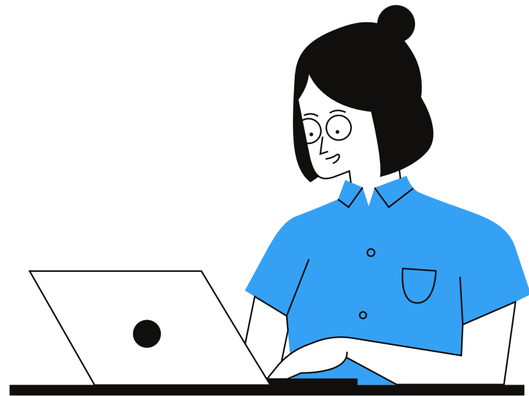


4

INFO PAGE

At last the INFO module, in it one can click on the info icon and able to access the formulae how the work is actually being done or how the grades are being calculated and this button will be present on each and every page.





Sample Codes...

```
jPanel1 = new javax.swing.JPanel();
jButton1 = new javax.swing.JButton();
jLabel2 = new javax.swing.JLabel();
jLabel1 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jPanel1.setBackground(new java.awt.Color(r:255, g:255, b:255));

jButton1.setBackground(new java.awt.Color(r:0, g:0, b:0));
jButton1.setForeground(new java.awt.Color(r:242, g:242, b:242));
jButton1.setText(text:"ENTER");
jButton1.setCursor(new java.awt.Cursor(java.awt.Cursor.HAND_CURSOR));
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jLabel2.setIcon(new javax.swing.ImageIcon(getClass().getResource(name:"/3881949.jpg"))); // NOI18N

jLabel1.setFont(new java.awt.Font(name:"Segoe UI Variable", style:1, size:24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(r:25, g:55, b:109));
jLabel1.setText(text:"THE ULTIMATE GRADE CALCULATOR");
jLabel1.setAlignmentX(alignmentX:0.5F);

jLabel3.setFont(new java.awt.Font(name:"Segoe UI Variable", style:1, size:24)); // NOI18N
jLabel3.setForeground(new java.awt.Color(r:25, g:55, b:109));
jLabel3.setText(text:"      WITH PERSONALISED FEEDBACK FOR SCHOLASTICS ELEVATION");

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);
jPanel1.setLayout(jPanel1Layout);
jPanel1Layout.setHorizontalGroup(
    jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, pref:0, Short.MAX_VALUE)
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addComponent(jLabel3)
        .addGap(min:0, pref:36, Short.MAX_VALUE))
    .addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
        .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, pref:445, javax.swing.GroupLayout.PREFERRED_SIZE)
        .addGap(min:160, pref:160, max:160))
    .addGroup(jPanel1Layout.createSequentialGroup()
        .addGap(min:377, pref:377, max:377)
        .addComponent(jButton1)
        .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))
);
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);

jPanel1.setBackground(new java.awt.Color(r:238, g:241, b:255));

jLabel1.setFont(new java.awt.Font(name:"Trebuchet MS", style:1, size:24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(r:10, g:38, b:71));
jLabel1.setText(text:"Semester4");

jTextField4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(jav ActionEvent evt - Main4.initComponents().new ActionListener() {...}.actionPerformed(Act
        jTextField4ActionPerformed(evt);
    }
});

jTextField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField1ActionPerformed(evt);
    }
});

jLabel2.setFont(new java.awt.Font(name:"Segoe UI Semibold", style:1, size:18)); // NOI18N
jLabel2.setForeground(new java.awt.Color(r:20, g:66, b:114));
jLabel2.setText(text:"Subject Name");

jLabel3.setFont(new java.awt.Font(name:"Segoe UI Semibold", style:1, size:18)); // NOI18N
jLabel3.setForeground(new java.awt.Color(r:20, g:66, b:114));
jLabel3.setText(text:"Subject code");

jLabel4.setFont(new java.awt.Font(name:"Segoe UI Semibold", style:1, size:18)); // NOI18N
jLabel4.setForeground(new java.awt.Color(r:20, g:66, b:114));
jLabel4.setText(text:"Marks");

jLabel5.setFont(new java.awt.Font(name:"Segoe UI Semibold", style:1, size:18)); // NOI18N
jLabel5.setForeground(new java.awt.Color(r:20, g:66, b:114));
jLabel5.setText(text:"Credit");

jLabel6.setFont(new java.awt.Font(name:"Segoe UI Semibold", style:1, size:18)); // NOI18N
jLabel6.setForeground(new java.awt.Color(r:20, g:66, b:114));
jLabel6.setText(text:"Grade");

jLabel7.setFont(new java.awt.Font(name:"Segoe UI Variable", style:1, size:12)); // NOI18N
jLabel7.setForeground(new java.awt.Color(r:32, g:82, b:149));
jLabel7.setText(text:"Computer Organization And Design");

jLabel8.setFont(new java.awt.Font(name:"Segoe UI Variable", style:1, size:12)); // NOI18N
jLabel8.setForeground(new java.awt.Color(r:32, g:82, b:149));
jLabel8.setText(text:"Programming in Java");
```

```
private void initComponents() {

    jButton1 = new javax.swing.JButton();
    jPanel1 = new javax.swing.JPanel();
    jTextField2 = new javax.swing.JTextField();
    jt21 = new javax.swing.JTextField();
    jt4 = new javax.swing.JTextField();
    jt7 = new javax.swing.JTextField();
    jt26 = new javax.swing.JTextField();
    jt8 = new javax.swing.JTextField();
    jLabel11 = new javax.swing.JLabel();
    jt24 = new javax.swing.JTextField();
    jLabel18 = new javax.swing.JLabel();
    jLabel23 = new javax.swing.JLabel();
    jLabel20 = new javax.swing.JLabel();
    jLabel19 = new javax.swing.JLabel();
    jLabel21 = new javax.swing.JLabel();
    jButton2 = new javax.swing.JButton();
    jLabel24 = new javax.swing.JLabel();
    jComboBox3 = new javax.swing.JComboBox<>();
    jComboBox5 = new javax.swing.JComboBox<>();
    jButton5 = new javax.swing.JButton();
    jComboBox6 = new javax.swing.JComboBox<>();
    jComboBox7 = new javax.swing.JComboBox<>();
    jTextField1 = new javax.swing.JTextField();
    jLabel4 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jLabel5 = new javax.swing.JLabel();
    jLabel3 = new javax.swing.JLabel();
    jLabel9 = new javax.swing.JLabel();
    jLabel1 = new javax.swing.JLabel();
    jLabel6 = new javax.swing.JLabel();
    jLabel25 = new javax.swing.JLabel();
    jLabel7 = new javax.swing.JLabel();
    jLabel26 = new javax.swing.JLabel();
```

Let's Start!

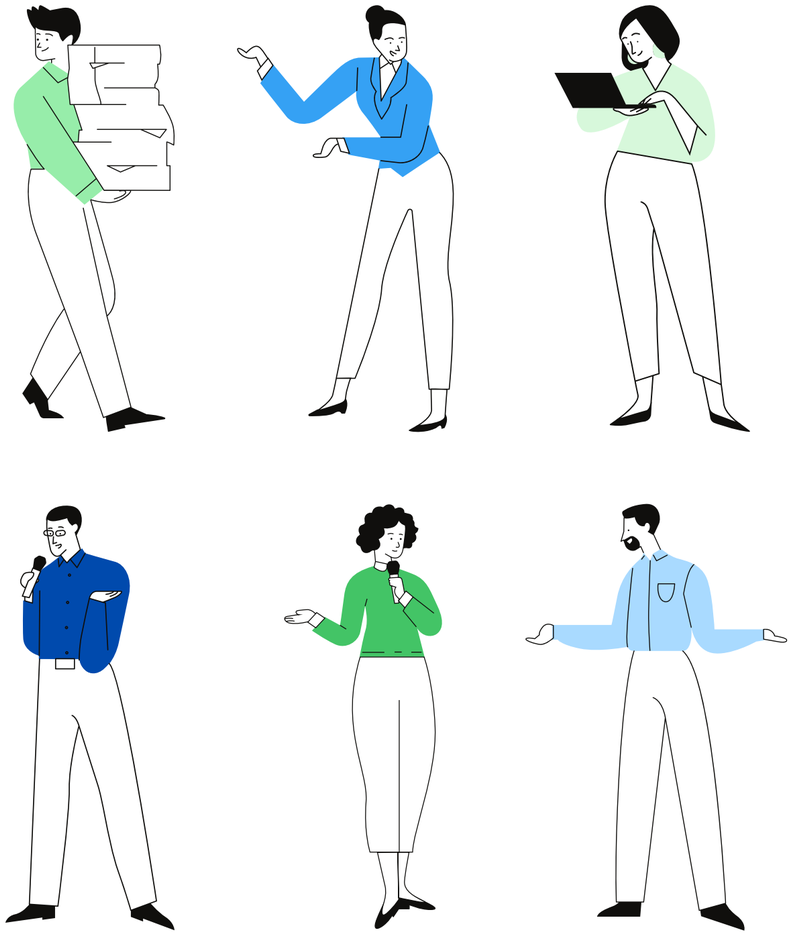
PRESENTING

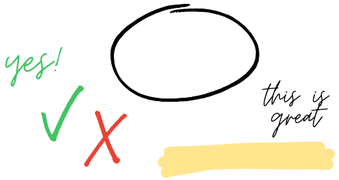
April, 2023

Potential of the Project

More advanced versions of the tool might incorporate artificial intelligence or machine learning algorithms to analyze student performance data and provide more personalized feedback and recommendations for improvement. For example, the tool might be able to identify specific topics or concepts that a student is struggling with and suggest additional resources or study materials to help them improve.

Overall, the scope of an Ultimate Grade Calculator with Personalized Feedback for Scholastic Elevation is likely to be quite broad, encompassing a wide range of features and functionalities designed to help students achieve their academic goals.





We're done!

Thank you for lending your ears. Have a great day ahead.