Student Feedback System

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Abstract: Feedback is very important in any field. It can show the review about the subject and respective faculty members. It brings people together and creates a healthy communication flow. The project has major work of oops terminology like class, constructor, method, inheritance.For school and college, it gives all information & rating about the academic system of college.

I. INTRODUCTION

The Subject Feedback System plays a crucial role in collecting student feedback and has become a necessary tool for improving teaching quality and enhancing the overall student experience. The system provides an efficient and digital platform for collecting, analyzing, and acting on the feedback in a better manner. By implementing the Subject Feedback System, institutions aim to achieve several objectives. These include improving teaching quality and effectiveness, enhancing students for assignment, instructor, and providing data-driven insights for decision-making at the institutional level.

One of the key benefits of the Subject Feedback System is the ability to collect feedback in real-time. Students can easily provide their feedback immediately after a class or during a specific timeframe, ensuring that their opinions are fresh and relevant. Anonymity is another advantage of the system, as students can express their honest opinions without fear of repercussions, leading to more authentic and valuable feedback. Additionally, the system offers comprehensive data analysis and visualization capabilities, enabling effective interpretation of the feedback collected.

The architecture of the Subject Feedback System typically consists of user interfaces for students to submit their feedback, a robust data storage and management system, reporting and analytics tools, and seamless integration with student management systems or learning platforms. This ensures a smooth and user-friendly experience for both students and administrators. The feedback collection process is designed to be straightforward and intuitive, allowing students to easily navigate the system and provide their feedback efficiently.

II. RELATED WORK

The project aims to create a feedback form using Python and Tkinter for collecting feedback from students. The feedback form provides a user-friendly interface for students to submit their feedback on various subjects and aspects of their learning experience. The project utilizes the object-oriented programming (OOP) paradigm to structure the code and implement the form.

The feedback form consists of several input fields such as name, email, subject, faculty, and comment. These fields are created dynamically using Tkinter's widgets, ensuring a flexible and scalable design. The form allows students to select a subject from a dropdown menu and enter their feedback comments in a text area.

Upon submission of the form, the entered data is collected and displayed in the console for processing. A message box is also displayed to thank the student for their feedback.

The project incorporates concepts such as encapsulation, where the form's widgets are encapsulated within a class, promoting code modularity and reusability. The use of abstraction is demonstrated through the dynamic creation of input fields, reducing code redundancy and enhancing maintainability.
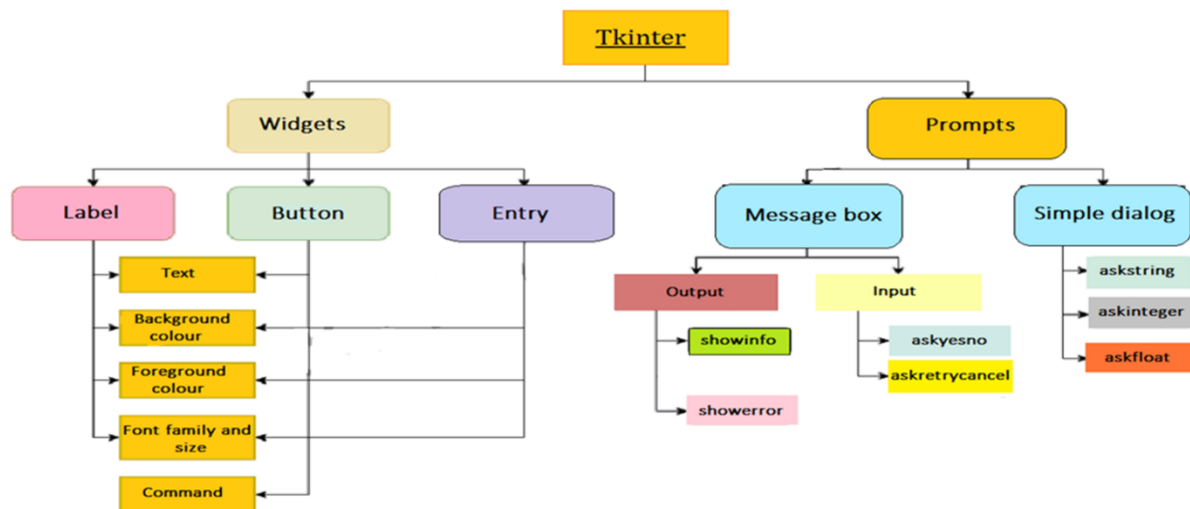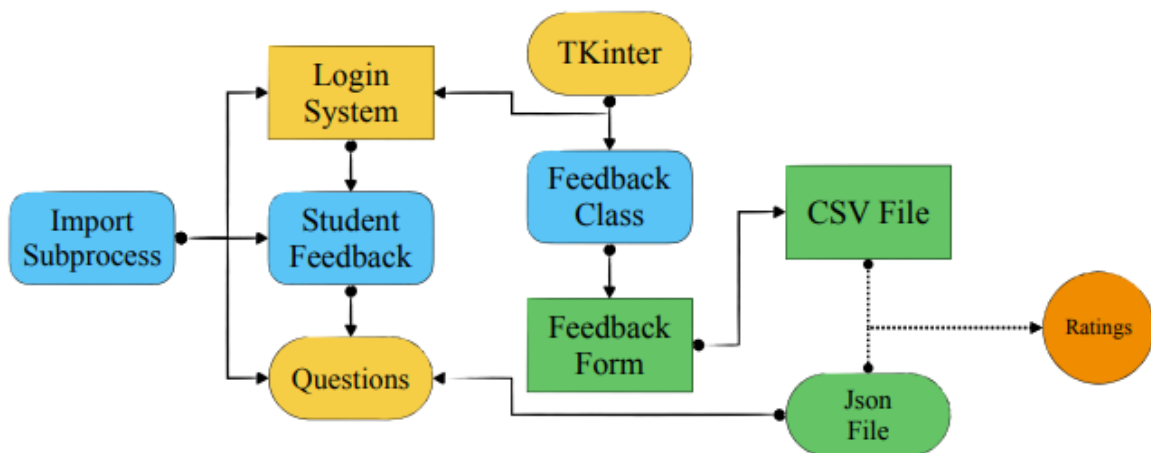
Figure 1 Tkinter Library Functions

Figure 2 Proposed Model

III.   METHODOLOGY

1. Display the main GUI window of login system to enter username and password, if both are not correct then message showing incorrect username or password; if correct then proceeding it to feedback form where students have to enter their name, email choose the subject and faculty and give their respective comments and rating after clicking next button new window will appear where choose the best option according to them.
2. The uses of Feedback class where have to add several attributes, the uses of polymorphism in labeling the widget in a constructive way and uses of inheritance to create objects.
3. Creating a Json file where students have to add some questions and call it in a new python file.
4. Then at last, add all the files in the login file by importing the subprocess and python path file.
5. To store data, create a csv file where you have to add all the feedback ratings of the respective form.
6. In Monitoring all the data and ratings programmers operate csv and find average ratings of a

   particular subject.

Some Library used in this project:

from tkinter import*: In order to work with a tkinter application, we have to install and import the tkinter library in our environment. Generally, we import the tkinter library in the environment by using from tkinter import * command. The significance of "import *" represents all the functions and built-in modules in the tkinter library.

Tkinter Library: Tkinter is the standard GUI library for Python. Python when combined with Tkinter provides a fast and easy way to create GUI applications. Tkinter provides a powerful object-oriented interface to the Tk GUI toolkit. Creating a GUI application using Tkinter is an easy task.[2]

from tkinter import messagebox: The tkmessagebox module is used to display message boxes in your applications. This module provides a number of functions that you can use to display an appropriate message. Some of these functions are showinfo, showwarning.

class Login: In Python, object-oriented Programming (OOPs) is a programming paradigm that uses objects and classes in programming.

Use of the code for adding background image self.bg=PhotoImage (file="C:\\Users\\aditya\OneDrive \\Pictures\\Screenshots\\Screenshot_20230214_201241.png") for background image in project.

Import json: In this file some questions are added and added to the python file.

Import csv: The csv file operation is run through this library.

Import subprocess: Through this all the separated file get joined in single file.

In this project all uses of object-oriented concepts like inheritance, polymorphism, methods, constructor, destructor, encapsulation & abstraction.

After all of this the feedback form data will be stored in feedback.csv file and the json question file is saved on feedback_text.csv and to taking together data will merge into single merged.csv file with header name like name, email, subject, faculty, comments, rating, content, instructor, assignment, overall column.

At last, the overall rating and average ratings of each subject can also be calculated with average operation of the csv rating column then the user can check all ratings and average rating of each subject.

Existing Work

In first, the code had not used oop terminology it was written in tkinter library and its inbuilt format
Only one window is displayed and no stored data by which there is no any means of the system, the result of the code is like in figure 3.[1]

Figure 3 Previous Format

IV. EXPERIMENT

Overall Run the project

Figure 4 (a) Login File   4 (b) .Feedback Form widget

Figure 4 (a) After clicking Next (b) After clicking Submit Button

V. RESULT

The data will be stored in a csv file where programmers can find ratings and average ratings of each subject by finding the mean of each subjects' ratings.

Name	Email	Subject	Faculty	Comment	Rating	Content	Instructor	Assignmer	Overall
Aditya Raj	aditya22101@iiitnr.edu.	IOT	Kavita Jaiswal	She is good teacher.	4	Satisfied	Yes	Partially	Good

Figure 5 (a) Experimental Result

```
                          > python -u  c:\Users
Subject: IOT, Average Rating: 3.50
Subject: Calculus, Average Rating: 3.00
Subject: OOP, Average Rating: 3.50
Subject: Quantum Mechanics, Average Rating: 3.00
Subject: 3D Printing, Average Rating: 3.00
Subject: AIML, Average Rating: 4.00
Subject: CDS, Average Rating: 3.00
Subject: OT, Average Rating: 3.00
```
Figure 5(b) Final Ratings

VI. CONCLUSION

The student feedback system project easily implemented a loyal feedback mechanism that facilitated open communication, generated valuable insights, and contributed to continuous improvement in the institution. The project highlighted the importance of involving students in the feedback process and demonstrated the benefits of a systematic approach to feedback collection and analysis. The feedback system has a login system which gives a secure way of the project by which user and programmer follow some credentials and work under some rules and regulations.

REFERENCE
[1]   https://itsourcecode.com/free-projects/python-projects/student-feedback-system
[2]   https://www.geeksforgeeks.org/python-gui-tkinter/