

CRITERION A: PLANNING

PROBLEM STATEMENT

My math tutor, Monika Kejriwal, does not have an organized system for attendance, keeping track of progress and grades, and an efficient method to enter tuition for students.

DESCRIPTION OF SCENARIO

Ms Monika loses track of the book that she keeps the attendance of students and therefore has “to go manually and look at each and every student” (Monika).¹ She has to input individual tuition fees per class, calculator total for the month, and send it to parents. She often forgets to “give them assessment and [keeps] a proper record of what has been taught to the student in the last lesson” (Monika).² to know where their skills are. Sometimes the exam papers do not reflect the students capacity and therefore they end up wasting the entire class time on a topic which does not benefit them.

RATIONALE FOR PROPOSED PRODUCT

The reason for the computer program is to increase efficiency and organization of the clients tutoring sessions. The program would allow the client to keep attendance, class notes to develop individualized sessions for students, and create for tuition fees. This is needed because after every class it is tedious to write down the name of every student and manually input their fees. A stand-alone application is needed since only the client will be using it, no data is stored elsewhere, less prone to hacking. In order to create a solution, I used the following features:

Feature Name	Description	Reason
Netbeans	Integrated development environment: editor, compiler, and debugger.	<ul style="list-style-type: none">- GUI, Other libraries- Debugger finds errors- Supported by Oracle- large community of developers.
Java	Computer programming language.	<ul style="list-style-type: none">- Java done in OPP options classes- Can run on any computer- Built-in security features
OPP	Object Oriented Programming	<ul style="list-style-type: none">- Reliability through encapsulation- Organization through inheritance- Understand hierarchical structures
GUI	Graphical User Interface	<ul style="list-style-type: none">- Visual features in the program.- Right data type inputted

¹ Monika Kejriwal, interview by author, country of residence, November 15, 2020, Appendix 2

² Monika Kejriwal, interview by author, country of residence, November 15, 2020, Appendix 2

PROTOTYPE OF THE PRODUCT

File Edit Help

Attendance Classes Tuition Login

MIE TEACHER LOGIN

Teacher Name

Item 1

LOGIN

Image 1: Login Page

File Edit Help

Attendance Classes Tuition

Student Name jTextField1

School Name jTextField4

Program Name Item 1

Class Type Regular Class Make-up Class

Date December 2020

Hours Item 1

Enter Student

Image 2: Attendance Page

File Edit Help

Attendance Classes Tuition

Student Name jTextField2 OK Current Level

School Name jTextField3 Sort Current Level by Program Name

Program Name Item 1

Today's Class

Next Class

Unit Name	Quiz Grade	Test Grade

Image 3: Classes Page

File Edit Help

Attendance Classes Tuition

Student Name jTextField5 OK By Week By Month

School Name jTextField6

Program Name Item 1

Parent Name jTextField7

Parent Mobile jTextField8

Parent Email jTextField9

Send tuition reminder to parent

Date	Class Type	Fees per class

Image 4: Weekly Tuition Page

File Edit Help

Attendance Classes **Tuition**

Student Name

School Name

Program Name

Parent Name

Parent Mobile

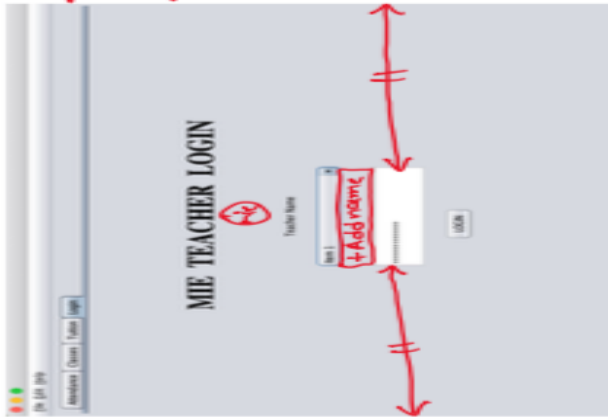
Parent Email

Send tuition reminder to parent

Month	# of class	Fees per cl...	Montly total	Pay Status

Image 4: Monthly Tuition Page

ANNOTATED PICTURES PROTOTYPE INTERVIEWS



center aligning

can we input the

logo?

in the TN, be able to
add new name quickly



set apart the spaces

between the attributes

size... shouldn't be there

be able to select the colour
of the table. (colour combination)

colour coding



Tuition details can only be accessed when SN, SN2, PN is entered first

Affix login page add "select student" → sorted by teacher name or land program



What to do w/ blank space? → maybe pic of student because forgetful of name.



Add calendar for upcoming exam dates.

SUCCESS CRITERIA FOR PRODUCT

Having talked to my client, I decided that to be a successful solution, my system will:

- Make the use of Graphical User Interface(GUI) to represent an attendance table, class teacher's notes, and tuition free spreadsheet
- Identify the student every class through name and photo identification- the client would like the application login by selecting a single or multiple students, which will be taken into consideration when designing as it is a user requirement.
- Correctly identify the detailed needs and/or progress of every individual student in a table- the note should be able to be saved.
- Use algorithmic thinking to identify average grade of student and suggest a list of question papers - so that the client can easily assign work to the student.
- Allow the user to separately access tuition fees - this additional feature would benefit the client since financial records are separated from class materials.
- Allow the user to maintain a calendar of exam dates of students - exam date calendar sorted by program name groups and/or grade of the student.

Word count: 495