

HURREY HACKATHON

METHODS TO DIGITALISE MARKS INPUT USING MODERN TECHNOLOGY

REQUIREMENTS:-

- 1) Input the marks for each question obtained in the most time and energy efficient way.
- 2) Show the total marks obtained.

KEY IDEAS:-

1) USING Machine Learning

The most simplest machine learning model is taking the picture of the marks column and uploading it.

The trained model will read the data from the picture and convert it into text format and marks corresponding to given questions will be shown in App or Web.

This is the most efficient way as a photo can be taken in seconds and output will be given in just few seconds

This idea is similar to OCR (Optical character recognition)

All of the marks will be stored in the form of matrix with particular index which can be transferred to web page.

Below is an example of data recognition of Q3 marks from jpg format to text file.

Q. No.	Marks
1	NA
2	00
3	02
4	10
5	4
6	10
7	9+1
8	2

Due to time constraints we could not complete the working prototype, So we came up with an alternative easy approach given below

2)EASY APPROACH

Created shortcuts using different keys of the keyboard.

Tab Key - Copies the entry of previous question to current question.

Left Arrow Key- Subtracts 10 from the entry of previous question and copies it to the current question.

Right Arrow Key - Adds 10 from the entry of previous question and copies it to the current question.

Up Arrow Key - Adds 1 from the entry of previous question and copies it to the current question.

Down Arrow Key - Subtracts 1 from the entry of previous question and copies it to the current question.

Examples -

- 1) Data entry for Q4 is 78 marks, pressing Space Key will make data entry at Q5 also 78 marks.
- 2) If Data entry for Q8 is 41 marks and for Q9 is 52 marks, all the teacher has to do is press the right arrow key (make it 51) and the up arrow key (make it 52).
- 3) If the Data entry for Q2 is 37 marks and for Q3 is 36 marks and Q4 is 26 marks, the teacher has to only press down arrow key, tab, left arrow key.

Other than these shortcuts the teacher can enter marks in conventional way by typing the the digits too if using the shortcuts is not very efficient in some of the cases

WHY THIS METHOD IS FASTER?

- 1)It is much more convenient and easy to use the arrow keys than typing the digits.
- 2)All the arrow keys are located closely unlike the numbers which makes it faster too.
- 3)By using the multiples of 10 the calculations become easy.
- 4)The errors can be solved quickly ,for example instead of 56 the teacher entered 57 by mistakes ,to solve the need to enter the down arrow key once. By conventional method backspace then 7 which is obviously slower

We could not complete this idea too , but we started working on it and we have attached whatever we could do in the given time.

TEAM DETAILS:-

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