**IUGC**

**Automatic Answer Checker**

**ML Project Report**

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**Subject: Machine Learning**

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**Acknowledgement: In this project a program check the answer given by the user and predict that the answer is correct or wrong.**

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**Abstract: *-***

This Report Describe:

* Working of the Project?
* How this will be used in the future?
* How it is useful to the community?
* Our project calculates the accuracy of answer given by the user.

**Introduction: *-***

In this project a program coded by using Google APIs which check the answer of student of that question which is asked and show the feedback whether the answer is correct or not the grading of the student is based on the feedback of the system.

**Problem Definition: *-***

There are two document one contain the questions and the other contain the right answer of those questions if the answer which is predict is correct the program show the accuracy of the answer and on that bases the grade of the student is calculated. This project is used to check the answer paper automatically by just providing the questionnaire and the answer sheet of that questionnaire.

**Literature Review: *-***

This type of project has been implemented in USA to check the answer of student online. The bases of their qualification. We have used google APIs to find the accuracy the algorithm is inherited from google but we have found the data and checked the accuracy of the algorithm on the bases of those questionnaire which are attached with this project.

**Proposed Work: *-***

The project is developed by three members Rashid Rahim, Mustansir Abbasi and Ayaz Qureshi three of us contributed almost equally, finding the data arranging it in organized form has been done by Ayaz Qureshi, Rashid Rahim has created the model slices the data performed training and testing, Mustansir Abbasi Tested the project wrote the user data in arranged form to show testing prediction and design. The code implementation and debugging is also done by Mustansir Abbasi, other information collection and report writing has been done equally by three of us.

**Q. Why we chose this Project?**

This project is selected to implement a unique idea that save qualified teachers time for other important task rather than checking answers of same question multiple time for different students. This project help our teacher to check answer sheet is mid and final examination by just execution the program once. Teacher just write the correct answer is answer document it will automatically compare it with student answer and predict the accuracy of answer and distribute the grade to the student:

**Project Architecture: *-***

Project is developed as an artificial intelligence neural network base (ANN).

Dataset is from various websited and imported into project by using numpy library of python

Activation fuction relu and sigmoid applied

Optimizer adam

Slicing function for data arrangement are used

Trained the data with whole dataset and testing is performed by user input

Accuracy and result of prediction is shown in the result.

**Report structure: *-***

We are providing a GUI design of the software where users type their answer in rich text area and by clicking submit button the answer is checked by the answer sheet provided by the teacher.

**Details of Work: *-***

*In Our Project, we take the Some Following Values from User:*

* *Answer in typed form*
* *Final Weight (continuous)*
* *Qualification (Bachelors, Some-college, 11th, HS-grad, Prof-school, Assoc-acdm, Assoc-voc, 9th, 7th-8th, 12th, Masters, 1st-4th, 10th, Doctorate, 5th-6th, Preschool)*
* *Education Class No. (continuous)*
* *University where student study*
* *Teacher name*
* *Teacher qualification*
* *Status in institute*
* *Grading criteria*
* *Length of answer*
* *Irrelevancy in text*

**Experiments: *-***

*We checked the program by inserting different correct and wrong answer with different ration the model predict the accuracy by the ratio of correctness and wrongness.*

**Motivation: *-***

In this course we have learnt the use of Google APIs and we were interested in a software which could develop a program which calculate the result of student in a way that teachers satisfy by the result and save time for other work. Teachers calculate the result without any buffing and signal breakdown.

**Result: *-***

In Our Project, The answer which is correct is checked how much relevant with the accurate answer and grading is selected by the relevancy. Now, for that we will try to predict the accuracy of the answer from user input. If accuracy is equal to or greater than 50% then the answer will be predicted right. If it is below 50% then the answer will be predicted wrong.

**Discussion: *-***

Our Project helps predict the right answer of student upon some certain instances:

* Reads the Dataset
* Looks to each parameter of the data
* Gets trained according to these parameters
* Takes input from end user
* Explores the probabilities of who wrote the accurate answer and who wrote the wrong answer

**Requirement:**

The Tool has been designed using Python language. So we must be installed python platform services. Also need anaconda and keras for translation.

**Code:**

import tkinter

from fuzzywuzzy import fuzz

list=[10]

list2=[10]

i=0

top = tkinter.Tk()

top.geometry('400x300')

top.config(background='black')

top.title('Project Window')

frame = tkinter.Frame(top, bg='black')

frame.grid(row=1,column=0)

lbl1 = tkinter.Label(top , text=' Quiz of Machine Learning', fg='white',bg='black')

lbl1.config(font=("TimesNewRoman",20,'bold'))

lbl1.grid(row=0, column=0)

i=0

line=''

with open('Questions.txt') as f:

list[i]=f.readlines()

i+=1

f.close()

i=0

with open('Answers.txt') as f:

list2[i]=f.readlines()

i+=1

f.close()

k=0

s=0

if(k==0):

line = [item[k] for item in list]

print(list)

def printnext():

global txt1

global k,s

global line

k=k+1

if(k<3):

line = [item[k] for item in list]

lbl3.config(text=line)

print(line)

print(k)

print(s)

s=s+1

tscore=0

def retrievetext():

global s

global tscore

global tscore1

global score1

print(s)

input1 = txt1.get('1.0','end-1c')

print(input1)

var1 = input1

if(s<=2):

score = fuzz.ratio(input1,[item[s] for item in list2])

tscore = tscore + score

score1 = 'Score: '+str(fuzz.ratio(input1,[item[s] for item in list2]))+'/100'

print(score)

lbl4.config(text=score1)

def result():

global tscore

global s

s +=1

print(s)

if(s==3):

tscore = tscore/3

print(tscore)

tscore = round(tscore,2)

tscore1 = 'TotalScore: '+str(tscore)+'/100'

lbl4.config(text=tscore1)

btn1 = tkinter.Button(frame, text='Next',command=printnext,fg='red')

btn1.grid(row=0,column=0)

btn3 = tkinter.Button(frame, text='Exit!',command=quit,fg='red',bg='white')

btn3.grid(row=0,column=1)

btn4 = tkinter.Button(frame, text='Result!',command=result,fg='red',bg='white')

btn4.grid(row=0,column=2)

frame2 = tkinter.Frame(top, bg='black')

frame2.grid(row=2,column=0)

lbl3 = tkinter.Label(frame2, text=line, fg='white',bg='black')

lbl3.config(font=("TimesNewRoman",14,'bold'))

lbl3.grid(row=0,column=0)

txt1 = tkinter.Text(frame2,width='48',height='3')

txt1.grid(row=1,column=0)

frame3 = tkinter.Frame()

frame3.grid(row=4,column=0)

lbl5 = tkinter.Label(frame3,text='',bg='black')

lbl5.grid(row=0,column=0)

btn2 = tkinter.Button(frame3, text='Submit',command=lambda :retrievetext())

btn2.grid(row=1,column=3)

lbl4 = tkinter.Label(frame3, width='25', text='Score : 0/0', fg='white',bg='black')

lbl4.grid(row=1,column=0)

top.mainloop()

**Conclusion:**

Our project ‘Automatic answer checker’ is created really to contribute to the class of answer checking, predicting whether answer is correct or wrong on the bases of the answer sheet.