



INDIRA NATIONAL SCHOOL



Academic Year: 2020-2021

Computer Science Project Report

SCHOOL ERP

Name: Shravan Sheth

CBSE Roll Number:

Class: XII

INDIRA NATIONAL SCHOOL, TATHAWADE

CERTIFICATE

This is to certify that Master/~~Miss~~. Shravan Sheth of Class XII CBSE Exam Number: _____ has prepared the project entitled: School ERP under my guidance. The report is the result of her efforts and endeavors. The report is found worthy of acceptance as final project report for the Computer Science subject for class XII as laid down by the CBSE Board for academic year 2020 – 2021.

Mrs. Medha Joshi
(PGT Computer Science).
Indira National School
Tathawade, Pune

DATE:

Indira National School, Tathawade

CERTIFICATE

This is to certify that the project prepared by
Master/~~Miss.~~ Shravan Sheth of Class XII entitled
'School ERP' for CBSE Board, All India Senior School
Certificate Examination for the academic year 2020-
2021, for Computer Science subject at Indira National
School, Tathawade has been examined and the
report is found worthy of acceptance.

Principal's Signature

External Examiner's

Internal Examiner's

Date:

School Stamp:

ACKNOWLEDGEMENT

I would like to express my gratitude to my Computer Science teacher, Mrs. Medha Joshi as well as my principal, Mrs. Sneha Sapre for giving me timely guidance in the completion of this project.

I would also like to thank Indira National School for providing me with all the necessary apparatus and infrastructure for this project.

Above all, I would like to thank the CBSE board for providing me with the opportunity to undertake such an interesting project.

Shravan Sheth

Indira National School, Tathawade

TABLE OF CONTENTS

TITLE	PAGE NUMBER
Working Description	6
Flow Chart	7
Loops Used	8
Tables Created	8
SQL Queries Used	8
Database Used	8
Source Code	9-13
Output	14-17
Bibliography	18

WORKING DESCRIPTION

This project of a School ERP was designed to be the most effective way to access student and teacher information. The information entered can be updated and deleted. New information can also be added to the system.

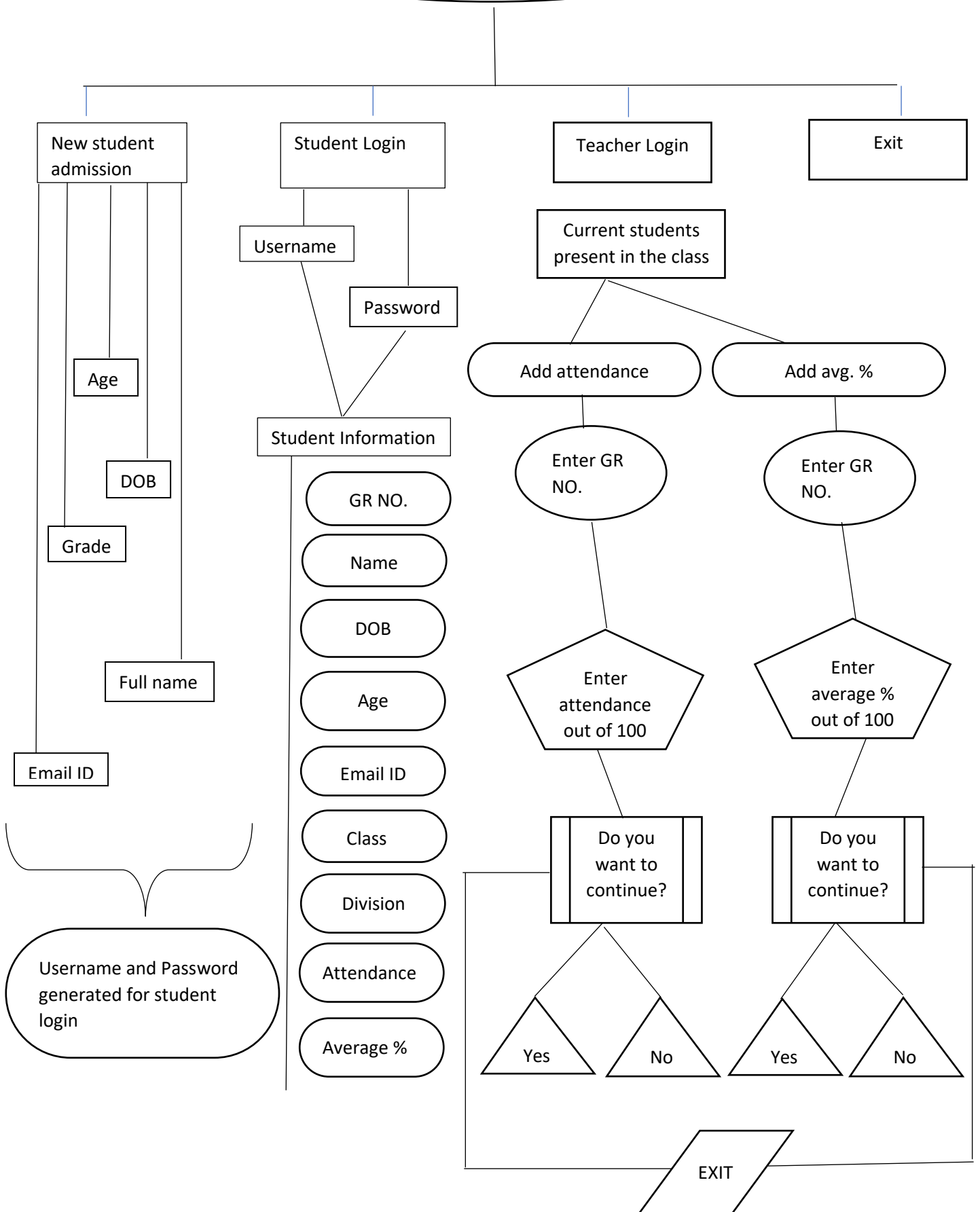
There are 3 main modes:

1. New student information: User has to enter his/her full name, Date of birth, age, email-ID and grade. A username and password are produced for the new student and he/she is allotted a division.
2. Student Login: A table is seen with the GR number, Full name, DOB, Age, email ID, Class, Division, attendance and average percentage.
3. Teacher Login: Another table is seen with the information of all students registered in the school through the portal.

As a teacher, the user can add and modify/add the attendance and average percentage of the students in the class.

FLOW CHART

MAIN MENU



LOOPS USED:

1. For
2. While
3. If

TABLES CREATED:

1. Students

SQL QUERIES USED:

1. CREATE DATABASE
2. USE DATABASE
3. CREATE TABLE STUDENTS
(Grno int(2) primary key,
Full_Name varchar(30),
DOB date,
Age int(2),
Email varchar(35),
Class int(2),
Division char(1),
Attendance float(3,1),
Avg_Percentage float(3,1))
4. SELECT * FROM STUDENTS
WHERE GR NO=()
5. INSERT VALUES INTO STUDENTS
6. UPDATE STUDENTS SET ATTENDANCE/AVERAGE %

DATABASE USED:

- Erp

SOURCE CODE:

```
def viewtable(cursor,connector):  
    x = PrettyTable(['GrNo', 'Name', 'DOB', 'Age', 'Email', 'Class', 'Division', 'Attendance(%)',  
    'Avg_Percentage'])  
    cursor.execute('select * from students;')  
    res = cursor.fetchall()  
    for i in res:  
        i = list(i)  
        i[2] = str(i[2])  
        x.add_row(i)  
    return x  
  
import sys  
import random  
import mysql.connector  
from prettytable import PrettyTable  
  
print("Welcome To erp login portal")  
erpdb = mysql.connector.connect(host="localhost", user="root", passwd='sqlpassword')  
mycursor = erpdb.cursor()  
mycursor.execute("create database if not exists erp")  
mycursor.execute("use erp")  
mycursor.execute("create table if not exists students(Grno int(2) primary key,Full_Name  
varchar(30),DOB date,"  
                "Age int(2),Email varchar(35),Class int(2), Division char(1), Attendance float(3,1),  
Avg_Percentage float(3,1))")  
erpdb.commit()  
div = ["A", "B", "C"]  
t_user = "admin"  
t_pass = "admin123"  
while True:  
    print("Enter 1 for new admission")  
    print("Enter 2 for student login")  
    print("Enter 3 for teacher login")
```

```

print("Enter 4 to exit")
a = int(input("Enter your choice:"))
if a == 1:
    print("New Admission:")
    print("")
    name = input("Enter your Full Name: ")
    dob = input("Enter your DOB YYYY-MM-DD: ")
    age = int(input("Enter your Age: "))
    email = input("Enter your email: ")
    class1 = int(input("Enter your class: "))
    grno = random.randint(100, 999)
    division = random.choice(div)
    mycursor.execute(
        "insert into students values({}, '{}', '{}', {}, '{}', {}, '{}', NULL, NULL);".format(grno, name,
        dob, age, email,
                                                                    class1, division))

    erpdb.commit()
    print("Your username is:", grno)
    print("Your password is:", str(grno) + '123')

elif a == 2:
    print("Student login:")
    print("")
    mycursor.execute("select Grno from students")
    gr = mycursor.fetchall()
    tries = 0
    while tries <= 3:
        u = int(input("Enter your username:"))
        p = input("Enter your password:")
        for i in gr:
            if u == i[0] and p == str(u) + "123":
                y = PrettyTable(['GrNo', 'Name', 'DOB', 'Age', 'Email', 'Class', 'Division',
                'Attendance(%)', 'Avg_Percentage'])
                mycursor.execute("select * from students where Grno= {}".format(u))
                data = mycursor.fetchone()

```

```

        y.add_row(list(data))

        print(y)

        tries = 4

        break

    else:

        print("Incorrect username or password. Please try again")

        tries = tries + 1

elif a == 3:

    print("Teacher login:")

    print("")

    tries = 0

    while tries < 3:

        u = input("Enter your username:")

        p = input("Enter your password:")

        if u == t_user and p == t_pass:

            print('There are the current students present in your class')

            print(viewtable(mycursor, erpdb))

            main_ans = 'n'

            while main_ans == 'n':

                choice= input('What do you wish to do?\n'

                               'Add attendance: 1\n'

                               'Add avg_percentage: 2\n'

                               'Exit: 3\n')

                if choice == '1':

                    print('You have selected for adding attendance of students')

                    print(viewtable(mycursor, erpdb))

                    mycursor.execute('select Grno,Full_Name from students;')

                    res = mycursor.fetchall()

                    ans = 'y'

                    while ans == 'y':

                        gno = int(input('Enter Grno of the student you wish to change the

attendance of: '))

```

```

        for i in res:
            if i[0] == gno:
                att_new = float(input(f'Enter new Attendance for {i[1]}: '))
                mycursor.execute('update students set Attendance = {} where Grno =
{};'
                                .format(att_new,gno))
                erpdb.commit()
                print("Attendance has been updated")
                print(viewtable(mycursor,erpdb))

            ans = input('Do you wish to change the attendance of other students as
well?(y/n): ')

            if ans == 'n':
                print("Final class list:")
                print(viewtable(mycursor,erpdb))
                break

            elif choice == '2':
                print('You have selected for adding avg_percentage of students')

                print(viewtable(mycursor, erpdb))
                mycursor.execute('select Grno,Full_Name from students;')
                res = mycursor.fetchall()
                ans = 'y'
                while ans == 'y':
                    gno = int(input('Enter Grno of the student you wish to change the average
percentage of: '))

                    for i in res:
                        if i[0] == gno:
                            att_new = float(input(f'Enter new avg_percentage for {i[1]}: '))
                            mycursor.execute('update students set avg_percentage = {} where
Grno = {};' .format(att_new,gno))
                            erpdb.commit()
                            print("Percentage has been updated")
                            print(viewtable(mycursor,erpdb))

```

```
        ans = input('Do you wish to change the avg_percentage of other students  
as well?(y/n): ')
        if ans == 'n':
            print("Final class list:")
            print(viewtable(mycursor, erpdb))
            break
        elif choice == '3':
            break
        main_ans = input('Do you wish to quit?(y/n): ')
        if main_ans == 'y':
            break
        else:
            print("Incorrect username or password. Please try again")
            tries = tries + 1
    elif a == 4:
        exit()
```

OUTPUT:

1. New admission

```
==== RESTART: C:\Users\Lenovo\Desktop\TANVI\12th\12th CS\CS PROJECT FINAL.py ====
Welcome To project login portal
Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:1
New Admission:

Enter your Full Name: Aditya Gaikwad
Enter your DOB YYYY-MM-DD: 2003-09-29
Enter your Age: 17
Enter your email: adigaikwad@gmail.com
Enter your class: 12
Your username is: 254
Your password is: 254123
Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:
```

2. Student Login

```
Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:2
Student login:

Enter your username:254
Enter your password:254123

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo |      Name      |   DOB   | Age |      Email      | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 254  | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12    | C        | None          | None            |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+

Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:
```

3. Teacher Login

- Class List

```
*Python 3.8.5 Shell*
File Edit Shell Debug Options Window Help

Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:3
Teacher login:

Enter your username:admin
Enter your password:admin123
There are the current students present in your class

+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo |      Name      |   DOB   | Age |      Email      | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140  | Ayush Shah    | 2003-07-14 | 17 | ayushshah@gmail.com | 12    | B        | 68.0          | 76.0            |
| 254  | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12    | C        | None          | None            |
| 354  | Khushi Gupta  | 2003-03-06 | 17 | guptakhushi@gmail.com | 12    | C        | 87.0          | None            |
| 460  | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12    | A        | None          | None            |
| 582  | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12    | B        | None          | None            |
| 992  | Riya Rao      | 2003-02-12 | 17 | riyarao@gmail.com   | 12    | A        | None          | 92.0            |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1
```

● Attendance

```
Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
What do you wish to do?
Add attendance: 1
Add avg_percentage: 2
Exit: 3
1
You have selected for adding attendance of students
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | None | None |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | None | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Enter Grno of the student you wish to change the attendance of: 254
Enter new Attendance for Aditya Gaikwad: 88
Attendance has been updated
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | 88.0 | None |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | None | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

```
Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Do you wish to change the attendance of other students as well?(y/n): y
Enter Grno of the student you wish to change the attendance of: 460
Enter new Attendance for Shanaya Singh: 96
Attendance has been updated
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | 88.0 | None |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | 96.0 | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
```

```

Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Do you wish to change the attendance of other students as well?(y/n): n
Final class list:
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | 88.0 | None |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | 96.0 | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
What do you wish to do?
Add attendance: 1
Add avg_percentage: 2
Exit: 3

```

- Percentage

```

Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
What do you wish to do?
Add attendance: 1
Add avg_percentage: 2
Exit: 3
2
You have selected for adding avg_percentage of students
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | 88.0 | None |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | 96.0 | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```

```

Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Enter Grno of the student you wish to change the average percentage of: 254
Enter new avg_percentage for Aditya Gaikwad: 79
Percentage has been updated
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| GrNo | Name | DOB | Age | Email | Class | Division | Attendance(%) | Avg_Percentage |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 140 | Ayush Shah | 2003-07-14 | 17 | ayushshah@gmail.com | 12 | B | 68.0 | 76.0 |
| 254 | Aditya Gaikwad | 2003-09-29 | 17 | adigaikwad@gmail.com | 12 | C | 88.0 | 79.0 |
| 354 | Khushi Gupta | 2003-03-06 | 17 | guptakhushi@gmail.com | 12 | C | 87.0 | None |
| 460 | Shanaya Singh | 2003-01-15 | 17 | shanayan@hotmail.com | 12 | A | 96.0 | None |
| 582 | Rishi Kulkarni | 2003-11-25 | 16 | rishikulkarni@gmail.com | 12 | B | None | None |
| 992 | Riya Rao | 2003-02-12 | 17 | riyarao@gmail.com | 12 | A | None | 92.0 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+

```



```
Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Do you wish to change the avg_percentage of other students as well?(y/n): y
Enter Grno of the student you wish to change the average percentage of: 354
Enter new avg_percentage for Khushi Gupta: 85
Percentage has been updated
```

GrNo	Name	DOB	Age	Email	Class	Division	Attendance(%)	Avg_Percentage
140	Ayush Shah	2003-07-14	17	ayushshah@gmail.com	12	B	68.0	76.0
254	Aditya Gaikwad	2003-09-29	17	adigaikwad@gmail.com	12	C	88.0	79.0
354	Khushi Gupta	2003-03-06	17	guptakhushi@gmail.com	12	C	87.0	85.0
460	Shanaya Singh	2003-01-15	17	shanayan@hotmail.com	12	A	96.0	None
582	Rishi Kulkarni	2003-11-25	16	rishikulkarni@gmail.com	12	B	None	None
992	Riya Rao	2003-02-12	17	riyarao@gmail.com	12	A	None	92.0

```
Python 3.8.5 Shell
File Edit Shell Debug Options Window Help
Do you wish to change the avg_percentage of other students as well?(y/n): n
Final class list:
```

GrNo	Name	DOB	Age	Email	Class	Division	Attendance(%)	Avg_Percentage
140	Ayush Shah	2003-07-14	17	ayushshah@gmail.com	12	B	68.0	76.0
254	Aditya Gaikwad	2003-09-29	17	adigaikwad@gmail.com	12	C	88.0	79.0
354	Khushi Gupta	2003-03-06	17	guptakhushi@gmail.com	12	C	87.0	85.0
460	Shanaya Singh	2003-01-15	17	shanayan@hotmail.com	12	A	96.0	None
582	Rishi Kulkarni	2003-11-25	16	rishikulkarni@gmail.com	12	B	None	None
992	Riya Rao	2003-02-12	17	riyarao@gmail.com	12	A	None	92.0

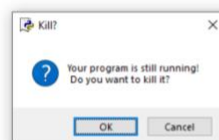
```
What do you wish to do?
Add attendance: 1
Add avg_percentage: 2
Exit: 3
```

• Exit

```
What do you wish to do?
Add attendance: 1
Add avg_percentage: 2
Exit: 3
3
Do you wish to quit?(y/n): y
Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
```

4. Exit

```
Enter 1 for new admission
Enter 2 for student login
Enter 3 for teacher login
Enter 4 to exit
Enter your choice:4
```



BIBLIOGRAPHY:

- <http://projects.icbse.com>
- Sumita Arora Computer Science with Python Class 11 and Class 12 textbook