United Indian School
ABU DHABI

PROJECT RECORD
2022-2023

11TH STREAM ALLOCATOR

Roll No.: _____

Name: _____

Class: _____ Sec: _____

Subject: _____

EDUCATION

Certificate

Roll No. _____

This is to certify that
Miss/Master _____ of
grade _____ section _____
has carried out project work in Assignment prescribed by the Central Board of Secondary Education, New Delhi during the academic year 2022 - 2023.

Teacher-in-charge: Dr. Harini Priyadarshini

Date: _____

_____ _____

External Examiner Internal Examiner

Contents

ACKNOWLEDGEMNENT

First and foremost, I am grateful to the Almighty God for establishing me to complete my project successfully.

I wish to express my deep and sincere gratitude to our Principal, Mr. K. George Mathew for providing me with all the necessary facilities required.

I take this opportunity to record my sincere thanks to all the faculty members for their constant supervision and encouragement.

I am extremely grateful and indebted to my Computer Science teacher, Dr. Harini Priyadarshini, for her sincere and valuable guidance and motivation extended to me throughout the project.

I am thankful to all those who spent their valuable time to find bugs and test the program in every possible use case.

I thank my friends who have helped me immensely in the creation of this project, from giving inspiration for this project to helping me fix the code where it went wrong.

I also place on my record, my sense of gratitude to one and all who, directly or indirectly, have lent their helping hands in this project.

Last but not the least, my parents are also an important inspiration for me. So, with due regards, I express my gratitude towards them.

INTRODUCTION

A student management system is a software application or set of tools that schools and educational institutions can use to manage various aspects of their operations, such as student data, grades, attendance records, schedules, and more. This type of system typically includes features for organizing and storing student information, tracking student progress, and facilitating communication between teachers, students, and parents. Some student management systems also include tools for managing school finances, scheduling classes and events, and generating reports. The 11th Stream Allocator is a concept based on selected objectives of a student management system. The user enters the student's details into the system and can change it anytime. They can also select a stream for the student and view the fees details. The user may also apply for a Transfer Certificate (TC) at any time.

SYNOPSIS

This project is an application that allows choosing the 11th stream to be online and quick. It allows the students to see the various streams and pick one online. The application takes in the student's details and they can be changed quickly by the user if there is a mistake. It also allows the user to see the fee details of every stream. the user can choose between a card or cash. They can also choose the payment period i.e., month basis, year basis or term basis. The application also allows the user to apply for a TC online. The application makes it easier and quicker for the students and the parents to enrol and well as leave the school easier and quicker.

SYSTEM DESCRIPTION

Python

File Name: `CBSEProject.py`

Import Statements:

```
import mysql.connector as m
```

Built-in Functions:

`connect()`	`input()`	`commit()`
`is_connected()`	`format()`	`print()`
`cursor()`	`execute()`	`fetchall()`

User Defined Functions:

`do1()`	`do2()`	`do3()`
`do4()`	`do5()`	`do6()`

Variables:

`amount`	`method`	`stream`
`ans`	`n`	`student`
`con`	`new_name`	`st_email`
`cursor`	`no`	`st_gender`
`fee`	`old_name`	`st_grade`
`i`	`period`	`st_id`
`ID`	`rs`	`st_name`
`j`	`sql`	`st_phno`

MySQL

Database: admission

Table 1: student

```
mysql> desc student;
+----------+-------------+------+-----+---------+-------+
| Field    | Type        | Null | Key | Default | Extra |
+----------+-------------+------+-----+---------+-------+
| st_id    | int         | NO   | PRI | NULL    |       |
| st_name  | char(20)    | YES  |     | NULL    |       |
| st_email | varchar(50) | YES  |     | NULL    |       |
| st_phno  | int         | YES  |     | NULL    |       |
| grade    | varchar(5)  | YES  |     | NULL    |       |
| gender   | char(10)    | YES  |     | NULL    |       |
+----------+-------------+------+-----+---------+-------+
6 rows in set (0.01 sec)
```

Table 2: fee

```
mysql> desc fee;
+--------+----------+------+-----+---------+-------+
| Field  | Type     | Null | Key | Default | Extra |
+--------+----------+------+-----+---------+-------+
| amount | int      | YES  |     | NULL    |       |
| method | char(10) | YES  |     | NULL    |       |
| period | char(10) | YES  |     | NULL    |       |
| st_id  | int      | YES  |     | NULL    |       |
+--------+----------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

PROGRAM SOURCE CODE

```
import mysql.connector as m
con = m.connect(host='localhost', user='root',
password='root', database='admission')
if con.is_connected():
    print("sucessfully connected")
else:
    print("error try again")
cursor = con.cursor()


def do1():
    cursor.execute(
        'create table student (st_id int(15) primary key
,st_name char(20) ,st_email varchar(50),st_phno int(20),grade
varchar(5),gender char(10))')
    cursor.execute(
        'create table fee(amount int, method char(10), period
char(10), st_id int);')


def do2():
    while True:
        st_id = int(input("enter the student's id:"))
        st_name = input("enter the student name:")
        st_email = input("enter the student email id:")
        st_phno = int(input("enter the student phone no:"))
        st_grade = int(input("enter the desired grade:"))
        st_gender = input("enter the student's gender:")
        student = "insert into student values(
{},'{}','{}',{},{},'{}')".format(
            st_id, st_name, st_email, st_phno, st_grade,
st_gender)
        cursor.execute(student)
        con.commit()
        n = input("do you want to continue? (yes/no)")
```

```
        if n == 'yes':
            pass
        elif n == 'no':
            print("goodbye!")
            break
        else:
            print("wrong action")
            break


def do3():
    ID = int(input("enter the id of the student:"))
    sql = "select * from student where st_id = {}".format(ID)
    cursor.execute(sql)
    rs = cursor.fetchall()
    for i in rs:
        for j in i:
            print("|", j, "|")
        print()


def do4():
    old_name = input("enter the student name to be updated:")
    new_name = input("enter the student's updated name:")
    cursor.execute("update student set st_name='{}' where
st_name = '{}' ".format(new_name, old_name))
    con.commit()
    print("successfully changed")


def do5():
    print("choose your stream(science,computer,commerce)")
    stream = input("enter the desired stream:")
    if stream == 'science':
        amount = 3000

    elif stream == 'computer':
```

```
        amount = 2500

    elif stream == 'commerce':
        amount = 2000

    else:
        print("error")

    print('you have to pay', amount)
    print("do you wish to pay by card or by cash")
    method = input("enter the method of payment:")
    print("do you wish to pay on monthly basis,term basis or
yearly basis")
    period = input("enter the prefered payment period:")
    ID = int(input("enter the student's ID:"))
    fee = "insert into fee
values({},'{}','{}',{})".format(amount, method, period, ID)
    cursor.execute(fee)
    con.commit()


def do6():
    ID = int(input("enter the student's ID:"))
    cursor.execute("select amount from fee where
st_id={}".format(ID))
    ans = input("do you wish to pay the fees now : ")
    if ans == 'yes':
        cursor.execute("delete from fee where st_id =
{}".format(ID))
    elif ans == 'no':
        print("you cannot apply for TC")


while True:

    print("MENU DRIVEN PROGRAM")
```

```
    print("-----------------------------------------------
-------------")
    print("1.create table student details in database
subject_allocator")
    print("-----------------------------------------------
-------------")
    print("2.add student details into the student table")
    print("-----------------------------------------------
-------------")
    print("3.view your student details ")
    print("-----------------------------------------------
-------------")
    print("4.update student name in the student table")
    print("-----------------------------------------------
-------------")
    print("5.choose the amount of fee to be paid ,choose your
payment method you want to use and choose your payment
period")
    print("-----------------------------------------------
-------------")
    print("6.applying for tc")
    print("-----------------------------------------------
-------------")
    print("7.exiting the program")
    print("-----------------------------------------------
-------------")

    no = int(input("ENTER THE DESIRED CHOICE HERE:"))

    if no == 1:
        do1()
        print("sucessfully created")
        n = input("do you want to continue? (yes/no)")
        if n == 'yes':
            pass
        elif n == 'no':
            print("goodbye!")
```

```
            break
        else:
            print("wrong action")
            break

    elif no == 2:
        do2()

    elif no == 3:
        do3()
        n = input("do you want to continue? (yes/no)")
        if n == 'yes':
            pass
        elif n == 'no':
            print("goodbye!")
            break
        else:
            print("wrong action")
            break

    elif no == 4:
        do4()
        n = input("do you want to continue? (yes/no)")
        if n == 'yes':
            pass
        elif n == 'no':
            print("goodbye!")
            break
        else:
            print("wrong action")
            break

    elif no == 5:
        do5()
        print("thank you")
```

```
    elif no == 6:
        do6()

    elif no == 7:
        print("thank you for using the online student
admission program")
        break
```

PROGRAM OUTPUT

```
sucessfully connected

MENU DRIVEN PROGRAM

----------------------------------------------------------------

1.create table student details in database subject_allocator

----------------------------------------------------------------

2.add student details into the student table

----------------------------------------------------------------

3.view your student details

----------------------------------------------------------------

4.update student name in the student table

----------------------------------------------------------------

5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period

----------------------------------------------------------------

6.applying for tc

----------------------------------------------------------------

7.exiting the program

----------------------------------------------------------------

ENTER THE DESIRED CHOICE HERE:1

sucessfully created

do you want to continue? (yes/no)yes

MENU DRIVEN PROGRAM

----------------------------------------------------------------

1.create table student details in database subject_allocator

----------------------------------------------------------------

2.add student details into the student table

----------------------------------------------------------------

3.view your student details

----------------------------------------------------------------

4.update student name in the student table

----------------------------------------------------------------

5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period

----------------------------------------------------------------
```

```
6.applying for tc
---------------------------------------------------------------
7.exiting the program
---------------------------------------------------------------
ENTER THE DESIRED CHOICE HERE:2
enter the student's id:1001
enter the student name:Tiri
enter the student email id:tiri@tiri.com
enter the student phone no:0501234567
enter the desired grade:100
enter the student's gender:male
do you want to continue? (yes/no)yes
enter the student's id:1002
enter the student name:Achu
enter the student email id:achu@tiri.com
enter the student phone no:000
enter the desired grade:50
enter the student's gender:nonbinary
do you want to continue? (yes/no)no
goodbye!
MENU DRIVEN PROGRAM
---------------------------------------------------------------
1.create table student details in database subject_allocator
---------------------------------------------------------------
2.add student details into the student table
---------------------------------------------------------------
3.view your student details
---------------------------------------------------------------
4.update student name in the student table
---------------------------------------------------------------
5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period
---------------------------------------------------------------
6.applying for tc
---------------------------------------------------------------
7.exiting the program
---------------------------------------------------------------
```

```
ENTER THE DESIRED CHOICE HERE:3
enter the id of the student:1001
| 1001 |
| Tiri |
| tiri@tiri.com |
| 501234567 |
| 100 |
| male |


do you want to continue? (yes/no)yes
MENU DRIVEN PROGRAM
-----------------------------------------------------------------
1.create table student details in database subject_allocator
-----------------------------------------------------------------
2.add student details into the student table
-----------------------------------------------------------------
3.view your student details
-----------------------------------------------------------------
4.update student name in the student table
-----------------------------------------------------------------
5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period
-----------------------------------------------------------------
6.applying for tc
-----------------------------------------------------------------
7.exiting the program
-----------------------------------------------------------------
ENTER THE DESIRED CHOICE HERE:4
enter the student name to be updated:Tiri
enter the student's updated name:Tirivikraman
successfully changed
do you want to continue? (yes/no)yes
MENU DRIVEN PROGRAM
-----------------------------------------------------------------
1.create table student details in database subject_allocator
-----------------------------------------------------------------
2.add student details into the student table
```

```
----------------------------------------------------------------

3.view your student details

----------------------------------------------------------------

4.update student name in the student table

----------------------------------------------------------------

5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period

----------------------------------------------------------------

6.applying for tc

----------------------------------------------------------------

7.exiting the program

----------------------------------------------------------------

ENTER THE DESIRED CHOICE HERE:5

choose your stream(science,computer,commerce)

enter the desired stream:computer

you have to pay 2500

do you wish to pay by card or by cash

enter the method of payment:card

do you wish to pay on monthly basis,term basis or yearly basis

enter the prefered payment period:yearly

enter the student's ID:1001

thank you

MENU DRIVEN PROGRAM

----------------------------------------------------------------

1.create table student details in database subject_allocator

----------------------------------------------------------------

2.add student details into the student table

----------------------------------------------------------------

3.view your student details

----------------------------------------------------------------

4.update student name in the student table

----------------------------------------------------------------

5.choose the amount of fee to be paid ,choose your payment method you want to use
and choose your payment period

----------------------------------------------------------------

6.applying for tc

----------------------------------------------------------------
```

7.exiting the program

ENTER THE DESIRED CHOICE HERE:6

enter the student's ID:1002

do you wish to pay the fees now : yes

MENU DRIVEN PROGRAM

1.create table student details in database subject_allocator

2.add student details into the student table

3.view your student details

4.update student name in the student table

5.choose the amount of fee to be paid ,choose your payment method you want to use and choose your payment period

---

6.applying for tc

7.exiting the program

ENTER THE DESIRED CHOICE HERE:7

thank you for using the online student admission program

CONCLUSION

This program has successfully demonstrated a program that uses Python and MySQL connectivity can be used to develop a full–fledged application. It provides for a structured and organised method for maintaining data and information. It makes the finest use of the open–source Python programming software and the MySQL database for running the application.

The project makes choosing the 11th stream easier and quicker for the students and for their parents . It allows easy modification off the details given by the student in case there is a mistake.

The functions of adding, deleting, editing, searching, and sorting records, can be proficiently performed using this program.

The author believes that the app can be further improved by developing a Graphical User Interface (GUI) within Python itself, by using modules such as tkinter.

The app can also be improved by integrating it with other languages, such as HTML, Flask, and Django among others, or by developing a proper executable that runs on PCs.

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