"STUDENT MANAGEMENT SYSTEM"

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Abstract

The Student Management System Project in Python file contains a python script. Our project Student Management system includes registration of students, storing their details into the system i.e., computerized the process. Our software has the facility to give a unique id for every student and stores the details of every student. It includes a search facility also –search by name, contact and roll number. The data can be retrieved easily. The interface is very User-friendly. The data are well protected for personal use and makes the data processing very fast.

Methodology Used

Python is widely used general-purpose, high level programming language. It was initially design by Guido van Rossum in 1991 and developed by Python software Foundation. It was mainly developed for emphasis on code readability, and its syntax allows programmers to express concepts in fewer line of code.

Python is a programming language that let you work quickly and integrate system more efficiently. Python is dynamically typed and garbage-collected. It supports multiple programming paradigms, including procedural, object-oriented, and functional programming. Python is often described as a "batteries included" language due to its comprehensive standard library.

Program/Source Code

```python
import sys

STUDENT_NAME = []

STUDENT_ROLL_NUMBER = []

STUDENT_ADDRESS = []

STUDENT_EMAIL = []

STUDENT_AGE = []

STUDENT_MOBILE_NUMBER = []

STUDENT_CLASS = []

class STUDENT_MANAGEMENT_SYSTEM:

  @staticmethod
  #   THIS FUNCTION HELP TO 'ADD' DATA OF STUDENT.
  def ADD_STUDENT_INFORMATION():
    print("ADDING STUDENT INFORMATION : \n")
    print("ENTER STUDENT NAME :", end=" ")
    NAME = input().upper()
    STUDENT_NAME.append(NAME)

    print("ENTER STUDENT ROLL NUMBER :", end=" ")
    ROLL_NUMBER = int(input())
    STUDENT_ROLL_NUMBER.append(ROLL_NUMBER)

    print("ENTER STUDENT AGE :", end=" ")
    AGE = int(input())
    STUDENT_AGE.append(AGE)
```

```python
    print("ENTER STUDENT CLASS :", end=" ")

    CLASS = input().upper()

    STUDENT_CLASS.append(CLASS)


    print("ENTER STUDENT E-MAIL ID :", end=" ")

    EMAIL_ID = input().upper()

    STUDENT_EMAIL.append(EMAIL_ID)


    print("ENTER STUDENT ADDRESS :", end=" ")

    ADDRESS = input().upper()

    STUDENT_ADDRESS.append(ADDRESS)


    print("ENTER STUDENT MOBILE NUMBER :", end=" ")

    MOBILE_NUMBER = input()

    MOBILE_NUMBER_LEN = len(MOBILE_NUMBER)


    if MOBILE_NUMBER_LEN < 10:

      print("\t PLEASE ENTER VALID TEN DIGIT MOBILE NUMBER.")

    else:

      STUDENT_MOBILE_NUMBER.append(MOBILE_NUMBER)

      print("\n")

      print("\t STUDENT INFORMATION ADDED SUCCESSFULLY.")

      print("\n")


  @staticmethod
  #  THIS FUNCTION HELP TO 'DELETE' DATA OF STUDENT
```

```python
def DELETE_STUDENT_INFORMATION():
    print("DELETING STUDENT INFORMATION : \n")


    if len(STUDENT_NAME) == 0 and len(STUDENT_ROLL_NUMBER) == 0 and len(STUDENT_AGE) == 0 and len(
            STUDENT_CLASS) == 0 and len(STUDENT_MOBILE_NUMBER) == 0 and len(STUDENT_ADDRESS) == 0 and len(
            STUDENT_EMAIL) == 0:
        print("\n")
        print("\t\t\t 'PLEASE FILL SOME INFORMATION DON'T KEEP IT EMPTY")
        print("\n")
    else:
        print("ENTER STUDENT'S ROLL NUMBER :", end=" ")
        ROLL_NUMBER = int(input())
        LOC = STUDENT_ROLL_NUMBER.index(ROLL_NUMBER)

STUDENT_ROLL_NUMBER.remove(STUDENT_ROLL_NUMBER[LOC])
        STUDENT_NAME.remove(STUDENT_NAME[LOC])

STUDENT_MOBILE_NUMBER.remove(STUDENT_MOBILE_NUMBER[LOC])
        STUDENT_AGE.remove(STUDENT_AGE[LOC])
        STUDENT_ADDRESS.remove(STUDENT_ADDRESS[LOC])
        STUDENT_EMAIL.remove(STUDENT_EMAIL[LOC])
        STUDENT_CLASS.remove(STUDENT_CLASS[LOC])


        print("\n")
        print("\t\t STUDENT INFORMATION DELETED SUCCESSFULLY.")
```

```python
        print("\n")


    @staticmethod
    #   THIS FUNCTION HELP TO 'UPDATE' DATA OF STUDENT.
    def UPDATE_STUDENT_INFORMATION():
        print("UPDATE STUDENT INFORMATION : \n")


        if len(STUDENT_NAME) == 0 and len(STUDENT_ROLL_NUMBER) == 0 and len(STUDENT_AGE) == 0 and len(
            STUDENT_CLASS) == 0 and len(STUDENT_MOBILE_NUMBER) == 0 and len(STUDENT_ADDRESS) == 0 and len(
            STUDENT_EMAIL) == 0:
            print("\n")
            print("\t\t\t 'PLEASE FILL SOME INFORMATION DON'T KEEP IT EMPTY")
            print("\n")
        else:
            print("ENTER STUDENT ATTRIBUTE YOU WANT TO DELETE :", end="\n")
            print("LIKE 'NAME, ROLL NUMBER, AGE, MOBILE NUMBER, ADDRESS, EMAIL, CLASS.")
            print("ENTER HERE :", end=" ")
            ATTRIBUTE = input().upper()


            if ATTRIBUTE == 'NAME':
                print("ENTER 'OLD NAME' :", end=" ")
                OLD_NAME = input()
                LOC_NAME = STUDENT_NAME.index(OLD_NAME)
```

```python
        print("ENTER 'NEW NAME' :", end=" ")

        NEW_NAME = input()

        STUDENT_NAME[LOC_NAME] = NEW_NAME

        print("\t 'NAME UPDATED SUCCESSFULLY.")

        print("\n")


    elif ATTRIBUTE == 'ROLL NUMBER':

        print("ENTER 'OLD ROLL NUMBER' :", end=" ")

        OLD_ROLL_NUMBER = int(input())

        LOC_ROLL = STUDENT_ROLL_NUMBER.index(OLD_ROLL_NUMBER)


        print("ENTER 'NEW ROLL NUMBER' :", end=" ")

        NEW_ROLL = int(input())

        STUDENT_ROLL_NUMBER[LOC_ROLL] = NEW_ROLL

        print("\t 'ROLL NUMBER UPDATED SUCCESSFULLY.")

        print("\n")


    elif ATTRIBUTE == 'AGE':

        print("ENTER 'OLD AGE' :", end=" ")

        OLD_AGE = int(input())

        LOC_ROLL = STUDENT_AGE.index(OLD_AGE)


        print("ENTER 'NEW AGE' :", end=" ")

        NEW_AGE = int(input())

        STUDENT_AGE[LOC_ROLL] = NEW_AGE

        print("\t 'AGE UPDATED SUCCESSFULLY.")
```

```python
        print("\n")


    elif ATTRIBUTE == 'ADDRESS':
        print("ENTER 'OLD ADDRESS' :", end=" ")
        OLD_ADDRESS = input()
        LOC_ADDRESS = STUDENT_ADDRESS.index(OLD_ADDRESS)

        print("ENTER 'NEW ADDRESS' :", end=" ")
        NEW_ADDRESS = input()
        STUDENT_ADDRESS[LOC_ADDRESS] = NEW_ADDRESS
        print("\t 'ADDRESS UPDATED SUCCESSFULLY.")
        print("\n")


    elif ATTRIBUTE == 'EMAIL':
        print("ENTER 'OLD EMAIL' :", end=" ")
        OLD_EMAIL = input()
        LOC_EMAIL = STUDENT_EMAIL.index(OLD_EMAIL)

        print("ENTER 'NEW EMAIL' :", end=" ")
        NEW_EMAIL = input()
        STUDENT_EMAIL[LOC_EMAIL] = NEW_EMAIL
        print("\t 'EMAIL - ID UPDATED SUCCESSFULLY.")
        print("\n")


    elif ATTRIBUTE == 'CLASS':
        print("ENTER 'OLD CLASS' :", end=" ")
```

```python
        OLD_CLASS = input()

        LOC_CLASS = STUDENT_CLASS.index(OLD_CLASS)


        print("ENTER 'NEW CLASS' :", end=" ")

        NEW_CLASS = input()

        STUDENT_CLASS[LOC_CLASS] = NEW_CLASS

        print("\t 'CLASS UPDATED SUCCESSFULLY.")

        print("\n")


    elif ATTRIBUTE == 'MOBILE NUMBER':

        print("ENTER 'OLD MOBILE NUMBER' :", end=" ")

        OLD_MOBILE = input()


        print("ENTER 'NEW MOBILE NUMBER' :", end=" ")

        NEW_MOBILE = input()

        MOBILE_NUMBER_LEN = len(OLD_MOBILE)

        M_N_LEN = len(NEW_MOBILE)


        if MOBILE_NUMBER_LEN < 10:

            print(end="\n")

            print("PLEASE ENTER TEN DIGIT MOBILE NUMBER.")

            print("SYSTEM HAS STOP, PLEASE TRY AGAIN.")

            sys.exit()

        elif M_N_LEN < 10:

            print(end="\n")

            print("\t PLEASE ENTER VALID TEN DIGIT MOBILE NUMBER.")
```

```python
            print("\t SYSTEM WORKING HAS STOP PLEASE TRY AGAIN.")
            sys.exit()
        else:
            LOC_MOBILE = STUDENT_MOBILE_NUMBER.index(OLD_MOBILE)
            STUDENT_MOBILE_NUMBER[LOC_MOBILE] = NEW_MOBILE
            print("\t 'MOBILE NUMBER UPDATED SUCCESSFULLY.")
            print("\n")


    @staticmethod
    #   THIS FUNCTION HELP TO UPDATE 'DATA' OF STUDENT.
    def DISPLAY_STUDENT_INFORMATION():
        print("DISPLAYING STUDENTS INFORMATION : \n")


        if len(STUDENT_NAME) == 0 and len(STUDENT_ROLL_NUMBER) == 0 and len(STUDENT_AGE) == 0 and len(
                STUDENT_CLASS) == 0 and len(STUDENT_MOBILE_NUMBER) == 0 and len(STUDENT_ADDRESS) == 0 and len(
                STUDENT_EMAIL) == 0:
            print("\n")
            print("\t\t\t 'OOPS ! NOTHING TO DISPLAY, BECAUSE NO DATA IS THERE.")
            print("\n")
        else:
            print("STUDENT'S NAME : ", end="\n")


            for x in STUDENT_NAME:
                print(x)
```

```python
    print()


    print(end="\n")


    print("STUDENT'S ROLL NUMBER :", end="\n")


    for y in STUDENT_ROLL_NUMBER:
        print(y)
    print()


    print(end="\n")


    print("STUDENT'S AGE :", end="\n")


    for z in STUDENT_AGE:
        print(z)
    print()


    print(end="\n")


    print("STUDENT'S MOBILE NUMBER :", end="\n")


    for x in STUDENT_MOBILE_NUMBER:
        print(x)
    print()
```

```python
        print(end="\n")


        print("STUDENT'S EMAIL :", end="\n")


        for y in STUDENT_EMAIL:
            print(y)
        print()


        print(end="\n")


        print("STUDENT'S CLASS :", end="\n")


        for z in STUDENT_CLASS:
            print(z)
        print()


        print(end="\n")


        print("STUDENT'S ADDRESS :", end="\n")


        for x in STUDENT_ADDRESS:
            print(x)
        print()


        print(end="\n")
```

```python
SMS = STUDENT_MANAGEMENT_SYSTEM()


if __name__ == '__main__':
  #  LOGIC OR BACKEND OF WORKING 'STUDENT MANAGEMENT SYSTEM'
  print("\n")


  print("\t\t\t\t ' ********** WELCOME TO STUDENT MANAGEMENT SYSTEM ********** ' \n")
  run = True


  while run:
    print("PRESS FROM THE FOLLOWING OPTION : \n")


    print("PRESS 1 : TO ADD STUDENT INFORMATION.")
    print("PRESS 2 : TO DELETE STUDENT INFORMATION.")
    print("PRESS 3 : TO UPDATE STUDENT INFORMATION.")
    print("PRESS 4 : TO DISPLAY STUDENT INFORMATION.")
    print("PRESS 5 : TO EXIT SYSTEM.")


    OPTION = int(input("ENTER YOUR OPTION : "))
    print("\n")
    print(end="\n")


    if OPTION == 1:
      SMS.ADD_STUDENT_INFORMATION()
    elif OPTION == 2:
```
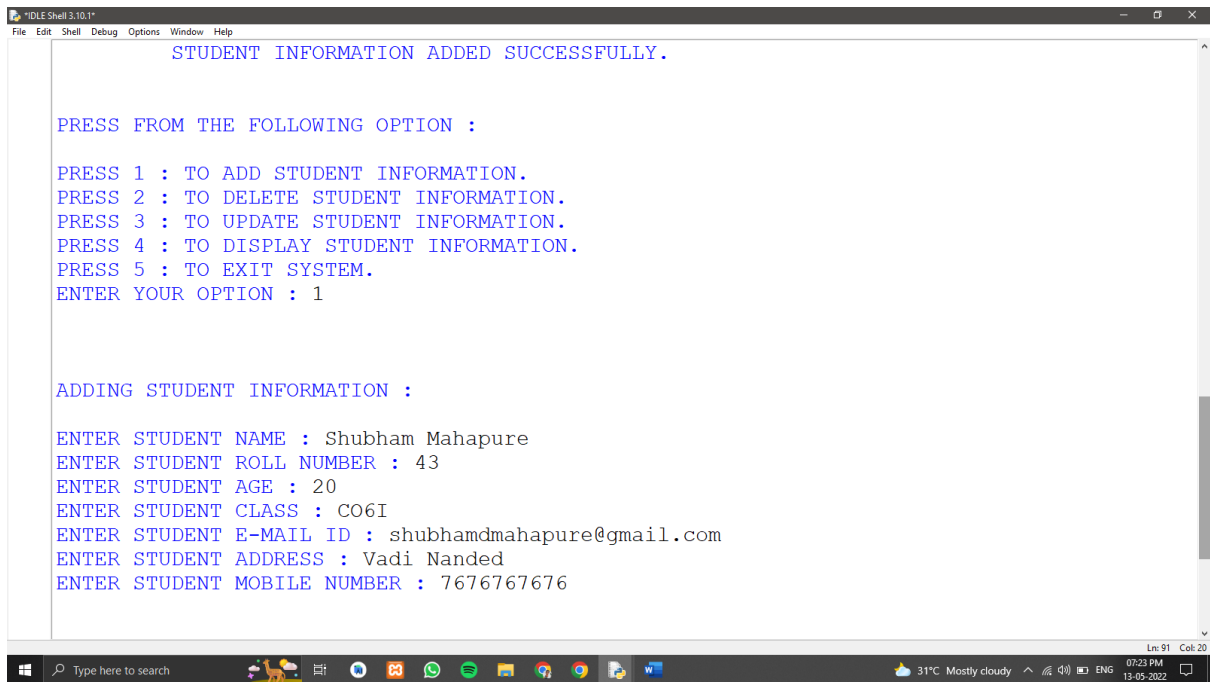
```
        SMS.DELETE_STUDENT_INFORMATION()
    elif OPTION == 3:
        SMS.UPDATE_STUDENT_INFORMATION()
    elif OPTION == 4:
        SMS.DISPLAY_STUDENT_INFORMATION()
    elif OPTION == 5:
        print("THANK YOU ! VISIT AGAIN.")
        run = False
    else:
        print("PLEASE CHOOSE CORRECT OPTION FROM THE FOLLOWING.")
        print("\n")
```

Output

```
STUDENT INFORMATION ADDED SUCCESSFULLY.


PRESS FROM THE FOLLOWING OPTION :

PRESS 1 : TO ADD STUDENT INFORMATION.
PRESS 2 : TO DELETE STUDENT INFORMATION.
PRESS 3 : TO UPDATE STUDENT INFORMATION.
PRESS 4 : TO DISPLAY STUDENT INFORMATION.
PRESS 5 : TO EXIT SYSTEM.
ENTER YOUR OPTION : 1



ADDING STUDENT INFORMATION :

ENTER STUDENT NAME : Shubham Mahapure
ENTER STUDENT ROLL NUMBER : 43
ENTER STUDENT AGE : 20
ENTER STUDENT CLASS : CO6I
ENTER STUDENT E-MAIL ID : shubhamdmahapure@gmail.com
ENTER STUDENT ADDRESS : Vadi Nanded
ENTER STUDENT MOBILE NUMBER : 7676767676
```
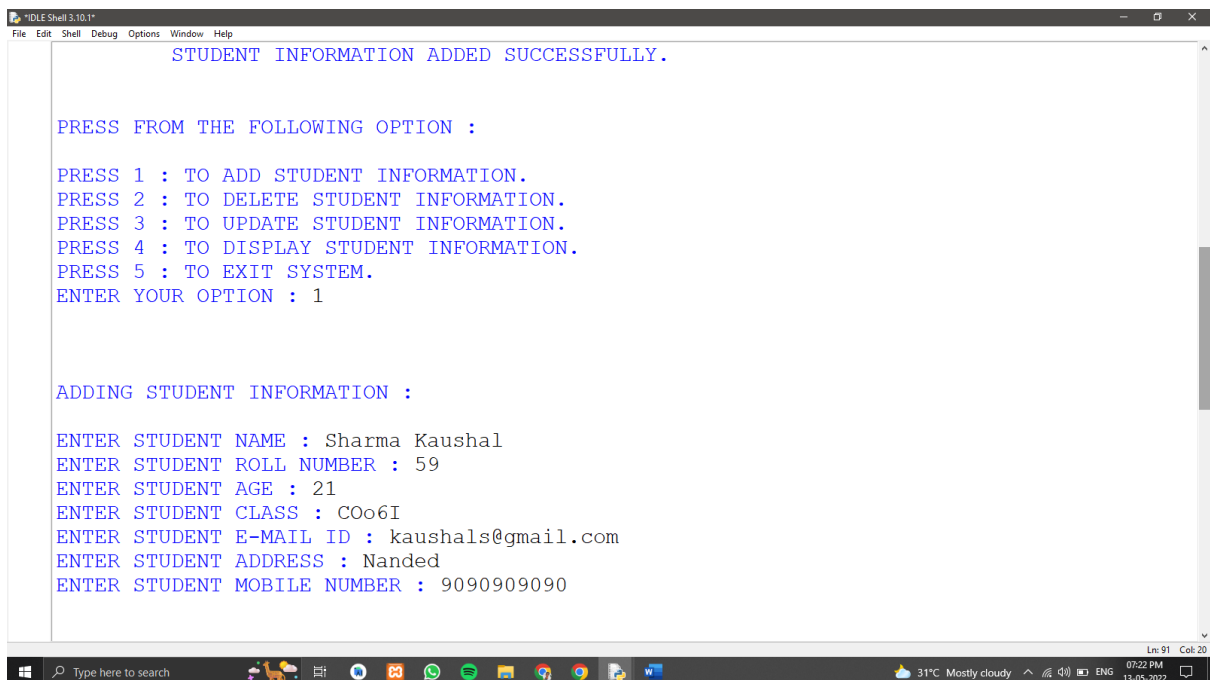
```
STUDENT INFORMATION ADDED SUCCESSFULLY.


PRESS FROM THE FOLLOWING OPTION :

PRESS 1 : TO ADD STUDENT INFORMATION.
PRESS 2 : TO DELETE STUDENT INFORMATION.
PRESS 3 : TO UPDATE STUDENT INFORMATION.
PRESS 4 : TO DISPLAY STUDENT INFORMATION.
PRESS 5 : TO EXIT SYSTEM.
ENTER YOUR OPTION : 1



ADDING STUDENT INFORMATION :

ENTER STUDENT NAME : Sharma Kaushal
ENTER STUDENT ROLL NUMBER : 59
ENTER STUDENT AGE : 21
ENTER STUDENT CLASS : COo6I
ENTER STUDENT E-MAIL ID : kaushals@gmail.com
ENTER STUDENT ADDRESS : Nanded
ENTER STUDENT MOBILE NUMBER : 9090909090
```

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```
                        ' ********** WELCOME TO STUDENT MANAGEMENT SYSTEM *****
***** '

PRESS FROM THE FOLLOWING OPTION :

PRESS 1 : TO ADD STUDENT INFORMATION.
PRESS 2 : TO DELETE STUDENT INFORMATION.
PRESS 3 : TO UPDATE STUDENT INFORMATION.
PRESS 4 : TO DISPLAY STUDENT INFORMATION.
PRESS 5 : TO EXIT SYSTEM.
ENTER YOUR OPTION : 1



ADDING STUDENT INFORMATION :

ENTER STUDENT NAME : Suyash Lomte
ENTER STUDENT ROLL NUMBER : 42
ENTER STUDENT AGE : 21
ENTER STUDENT CLASS : CO6I
ENTER STUDENT E-MAIL ID : suyashlomte@gmail.com
ENTER STUDENT ADDRESS : Cidco Nanded
ENTER STUDENT MOBILE NUMBER : 8787878787
```

```
PRESS 1 : TO ADD STUDENT INFORMATION.
PRESS 2 : TO DELETE STUDENT INFORMATION.
PRESS 3 : TO UPDATE STUDENT INFORMATION.
PRESS 4 : TO DISPLAY STUDENT INFORMATION.
PRESS 5 : TO EXIT SYSTEM.
ENTER YOUR OPTION : 2




DELETING STUDENT INFORMATION :

ENTER STUDENT'S ROLL NUMBER : 43


                 STUDENT INFORMATION DELETED SUCCESSFULLY.


PRESS FROM THE FOLLOWING OPTION :

PRESS 1 : TO ADD STUDENT INFORMATION.
PRESS 2 : TO DELETE STUDENT INFORMATION.
PRESS 3 : TO UPDATE STUDENT INFORMATION.
PRESS 4 : TO DISPLAY STUDENT INFORMATION.
PRESS 5 : TO EXIT SYSTEM.
ENTER YOUR OPTION : |
```

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Conclusion

This Python Project Code is the way to enhance and broaden our competencies and logic ideas which is essential in training the python programming language which is maximum well known and most usable programming language in lots of company. This project will help to easily manage records according to requirements.