

## A Project ReportOn "DISPENSARY MANAGEMENT"

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## SAINIK SCHOOL KALIKIRI

# Department of Computer Science SAINIK SCHOOL KALIKIRI



This is to certify that **Cdt. M PRANAV**, Roll No. 3 of Class XII has prepared the report on the Project entitled "**DISPENSARY MANAGEMENT**". The report is the result of his efforts & endeavors. The report is found worthy of acceptance as final project report for the subject Computer Science of Class XII.

Signature (Internal Examiner)

Signature (External Examiner)



## **DECLARATION**

I hereby declare that the project work entitled "DISPENSARY MANAGEMENT", submitted to Department of Computer Science, SAINIK SCHOOL KALIKIRI is prepared by me. All the coding is the result of my personal efforts.

Cdt. M. Pranav Roll No: 3 Class: XII C

SAINIK SCHOOL KALIKIRI



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Cdt. M. Pranav Roll No: 3 Class: XII C SAINIK SCHOOL KALIKIRI

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## **WORKING DESCRIPTION**

## LOGGED IN AS ADMIN

## **Manage Medicines**

sainik school galisple the medicine List: will display the entire medicines table

- **b.** Add a medicine: add a new medicine to the table
- c. See expired Medicines: view the list of expired medicines
- d. Update a medicine: update the data of the medicine
- e. Delete an expired medicine: delete an expired medicine

## 2. Manage Admission / Discharge

- a. Admit a cadet: admitting a cadet to the dispensary
- b. Discharge a cadet: discharging a cadet from the dispensary
- **c.** Extend discharge: ability to extend discharge period of cadet
- d. See admission logs: will show all the admission logs
- e.See discharge logs: will show all the discharge logs
- f. See active admissions: will show all the active admissions

### 3. Issue Medicine

- a. Issue Medicine: ability to issue medicine to the cadet
- b. See list of cadets under medication: will show a table of cadet with their given medicines
- c. See the list of all issued medicines: will show list of all medicines issues

## 4. See Cadets Data

- a.List of all of the cadet's login: will show a cadet's login logs
- b. List of a cadet login: will show a specific cadet logs
- **C.** See cadet medications: ability to cadet history of medications
- d.See cadet admissions/ discharges: ability to see cadet admissoins & discharges
- **5.** Change your password: ability to change the admin password

## LOGGED IN AS CADET

Sheck you Logs: will show the cadet logs

Fit House Championship Leaderboard: will show the table of caclulated points for the fit house championship

## 3. Edit your Basic Medical Data

- **a.** Update your height: ability to update cadet physical height
- **b.**Update your weight: ability to update cadet physical weight
- **c.** Update your eye sight: ability to update cadet eye sight
- **d.**Check your body mass index: will show the cadet BMI
- **4. Change your password:** ability to change cadet password

<u>2.</u>

## **Code of the Project**

e: There are 12 Python files in this project. Each file has it's own importance in the project.

src.py is file has all the utility functions to run the complete code

```
SAINIK SCHOOL KALIKIRI nnector as sql
from mysql.connector import Error
from time import sleep
import os
import datetime
from prettytable import PrettyTable
from math import fabs
house list = ['Godavari', 'Krishna', 'Penna', 'Tunqabhadra']
def Establish Connection():
    """This function establishes connection to mysql database"""
   connection = sql.connect(
       host='localhost', user='root', password='student', database='medic')
   mycursor = connection.cursor()
   return connection, mycursor, Error
# Establishing connection to the database
conn, cursor, sqlerror = Establish Connection()
def Cls():
   """This function clears the clears the screen in the command prompt"""
   os.system('cls')
def Exit():
   """This function prints the Thank You message when a user exits the program"""
   print("Thank you for using the program")
   sleep(1.5)
   exit()
def Main Heading():
   """This function prints the mainheading"""
   print("----- SAINIK SCHOOL KALIKIRI -----")
   print("----- Dispensary Management ----- \n")
def Get Admin Username List():
    """This function returns the list of admin usernames"""
   cursor.execute("SELECT username FROM admin user")
   username data = cursor.fetchall()
   username list = []
   for row in username data:
       username list.append(row[0])
   return username list
```

```
def Get_Admin_User_Password(username):
        his function returns the password of a given user"""
    cursor.execute(
         SELECT password FROM admin_user WHERE username = '{username}'")
          ord # ursor.fetchone()[0]
            assword
SAINIK SCHOOL KALIKIRI
   Get Admin Name(username):
    """This function returns the name of the admin user given the username"""
   cursor.execute(
        f"SELECT name FROM admin user WHERE username = '{username}'")
   name = cursor.fetchone()[0]
   return name
def Get Cadet Name (roll no):
    """This function returns the name of the cadet based on his roll number"""
   cursor.execute(f"SELECT name FROM cadet WHERE roll no = {roll no}")
   name = cursor.fetchone()[0]
   return name
def Get Roll No List():
    """This function returns the list of roll no of the cadets"""
   roll list = []
   cursor.execute("SELECT roll no FROM cadet")
   data = cursor.fetchall()
    for row in data:
       roll list += row
    return roll_list
def Get Cadet Password (roll no):
    """This function returns the password for a given Roll Number"""
   cursor.execute(
        f"SELECT password FROM cadet user WHERE roll no = {roll no}")
   password = cursor.fetchone()[0]
   return password
def Redirecting():
   """This function just prints redirecting on the screen"""
   print("\nRedirecting", end='')
   sleep(1)
   print(".", end='')
   sleep(1)
   print(".", end='')
   sleep(1)
   print(".")
def Input Date():
    """This function inputs date and returns the date"""
   print("\nPlease do enter only integers for the date")
```

```
while 🍱
            day_input = int(input("Enter the Day: "))
           month input = int(input("Enter the Month: "))
            year input = int(input("Enter the Year: "))
             ge date = datetime.date(year input, month input, day input)
SAINIK SCHOOL KALETRITH the date
        except ValueError:
           print("\nYou have entered an invalid characters. Please Try Again")
           continue
def Check Roll No(roll no):
    """This function checks whether the entered roll number
   exists in the data and returns True if matched"""
   roll list = Get Roll No List()
    if roll no in roll list:
        return True
   else:
       return False
def Get Probable Medicine(med name):
    """This function return the probable list and table of medicines"""
    cursor.execute(
        f"SELECT medicine name FROM medicine WHERE medicine name like '%{med name}%'")
   data = cursor.fetchall()
   med list = []
   med table = PrettyTable()
   med table.field names = ['Medicine Name']
    for med in data:
        med table.add row([med[0]])
       med list.append(med[0])
    if len (med list) == 0:
        return [], []
   else:
       return med list, med table
def Check Expiry(med name):
    """This function checks whether the given medicine in expired or not"""
    try:
       cursor.execute(
           f"SELECT expiry FROM medicine WHERE medicine name = '{med name}'")
       expiry date = cursor.fetchone()[0]
        if expiry date > datetime.date.today():
           return True
        else:
           return False
    except Error:
        return 'Error'
```

```
Check Quantity (med name):
          function checks the quantity available to issue medicine"""
           .execute(
          SELECT quantity FROM medicine WHERE medicine_name = '{med_name}'")
            ntity = cursor.fetchone()[0]
SAINIK SCHOOL KALIKER tity > 0:
        <del>return T</del>rue
    else.
        return False
def Change Medication Status():
    """This function checks the end date and updates the medical status of the cadet"""
    try:
            "SELECT roll no, timestamp, end date, status FROM issue medicine WHERE status = 'Under
Medication'")
       data = cursor.fetchall()
        for roll no, timestamp, end date, status in data:
            if end date < datetime.date.today():</pre>
               cursor.excecute(
                    f"UPDATE issue medicine SET status = 'Healthy' WHERE roll no = {roll no} and
timestamp = '{timestamp}'")
               conn.commit()
           else:
               pass
   except sqlerror:
       print("An Error Occurred while parsing and modifying the Status of the Cadet.")
def Scan For Expiry():
    """This function scans the entire medicines to check if any medicine expired"""
   expiry_table = PrettyTable()
   expiry table.field names = ['Medicine Name',
                                'Usage / Indication', 'Quantity', 'Expiry']
   expiry list = []
    try:
        cursor.execute(f"SELECT medicine name FROM medicine")
       data = cursor.fetchall()
        for medicine in data:
            check value = Check Expiry(medicine[0])
            if not check value:
               cursor.execute(
                    f"SELECT * FROM medicine WHERE medicine name = '{medicine[0]}'")
               name, usage, qty, exp = cursor.fetchone()
               expiry_list.append(name)
               expiry table.add row([name, usage, qty, exp])
           else:
               pass
        if len(expiry_list) == 0:
           return False, False
        else:
           return expiry table, expiry list
    except sqlerror:
       print("\nAn Error Occurred while scanning for expiry")
```

```
%tatus(bmi):
           s function gets the bmi status based on the bmi value"""
              5 or bmi == 18.5:
              Underweight'
       <u>₽18.5 < b</u>mi < 24.9:
SAINIK SCHOOL KALIKIRI Healthy'
    elif 25 < bmi < 29.9:
       return 'Overweight'
    elif bmi > 30:
       return 'Obese'
    else:
       return "Can't Be Calculated"
def Update BMI (roll no):
    """This function updates BMI and BMI Status of a cadet"""
    try:
        import mysql.connector
       new = mysql.connector.connect(
           host='localhost', user='root', password='student', database='medic')
       new cursor = new.cursor()
       new_cursor.execute(
            f"SELECT height, weight FROM medical_data WHERE roll_no = {roll_no}")
       height, weight = new cursor.fetchone()
        if height and weight:
           height = height/100
           bmi = (weight / height**2)
           bmi = round(bmi, 2)
           bmi_status = Get_BMI_Status(bmi)
           new cursor.execute(
                f"UPDATE medical data SET BMI = {bmi}, BMI status = '{bmi_status}' WHERE roll_no =
                                                                  {roll no}")
           new.commit()
           return True
        else:
           return False
   except sqlerror:
       return False
def Input Timing():
    """This function lets user to enter timing"""
   while True:
       hour input = input ("Enter the hour (24 Hour Format):")
       minute input = input("Enter the minutes: ")
        trv:
           hour input = int(hour input)
           minute input = int(minute input)
            if 0 \le \text{hour input} \le 23 and 0 \le \text{minute input} \le 59:
               time = datetime.time(hour=hour input, minute=minute input)
                return time
```

```
print("You input exceeded the limit. Please Try Again")
                sleep(1)
               ontinue
              ValueError:
SAINIK SCHOOL KALIKIRI You have entered an invalid value for hours of minute. Please Try Again")
            sleep(1)
            continue
def Check If Admitted (roll no):
    """This function checks whether a cadet is admitted or not"""
    try:
        cursor.execute(
            f"SELECT * FROM admission WHERE roll no = {roll no} and status = 'Admitted'")
        data = cursor.fetchone()
        if data is not None:
           print("\nYou can't Admit the Cadet. The cadet is already Admitted")
           print(f"Admitted Cause: {data[1]}")
           print(f"Admitted on: {data[3]}")
            print(f"Discharge Date: {data[2]}")
            return True
        else:
           return False
    except sqlerror:
        print ("An Error Occurred while parsing data from the database. Please Try Again")
        sleep(1.5)
def Get Latest Timestamp(roll no):
    """This function gets the latest admission timestamp of a cadet"""
    try:
        cursor.execute(
            f"SELECT timestamp FROM admission WHERE roll no = {roll no} and status = 'Admitted' ORDER
BY timestamp DESC")
        timestamp = cursor.fetchall()[0][0]
        return timestamp
    except sqlerror:
       print("\nAn error occurred while getting admission data. Please Try Again")
        sleep(1.5)
        return False
def Calculate Eye Sight Points():
    """This functions calculates the points for eye sight"""
    for house in house list:
       cursor.execute(f"""SELECT medical data.eye l, medical data.eye r FROM medical data, cadet
                        WHERE cadet.house = '{house}' and cadet.roll no = medical data.roll no""")
        data = cursor.fetchall()
        house total = 0
        for eye 1, eye r in data:
            if eye l is None and eye_r is None:
                continue
            else:
               print("else is getting executed")
               eye l = fabs(eye 1)
```

```
eye r = fabs(eye r)
               eye total = eye 1 + eye r
               house total += eye total
               or.execute(
               f"UPDATE fit house SET eye sight = {house total} WHERE house = '{house}'")
           conn.commit()
SAINIK SCHOOL KALIKIRI
def Calculate BMI Points():
    """This function calculates points based on BMI"""
    for house in house list:
       cursor.execute(f"""SELECT medical data.BMI FROMmedical_data,cadet
                       WHERE cadet.house = '{house}' and cadet.roll no = medical data.roll no""")
       data = cursor.fetchall()
       house bmi = 0
       for row in data:
           bmi = row[0]
           if bmi is None:
               continue
           else:
               house bmi += bmi
       else:
           cursor.execute(
               f"UPDATE fit house SET BMI = {house bmi} WHERE house = '{house}'")
           conn.commit()
def Add Admission Points (roll no):
    """This function adds points the the fit house table if a cadet is admitted"""
   cursor.execute(f"SELECT house FROM cadet WHERE roll no = {roll no}")
   house = cursor.fetchone()[0]
    cursor.execute(
       f"UPDATE fit house SET admission = admission + 5 WHERE house = '{house}'")
   conn.commit()
def Calculate Total Points():
    """This function calculates the total points for the house"""
    for house in house list:
       cursor.execute(
           f"UPDATE fit_house SET total_points = bmi + eye_sight + admission WHERE house =
'{house}'")
       conn.commit()
```

```
main. This file must be run to start the program
imp/ort
import 💽
        min_main as adm
         det main as cdt
from getpass import getpass
SAINIK SCHOOL KALIKIRI
           hing connection to the database
conn, cursor, sqlerror = src.Establish Connection()
def Validate Admin():
    """This functions validates whether the user is admin"""
   print("\nYou chose to login as admin\n")
    username input = input("\nEnter your username: ") # Username Input
    username_list = src.Get_Admin Username List()
    if username input in username list: # Validating Username
        password input = getpass("Enter you password: ")  # Password Input
        user password = src.Get Admin User Password(username input)
        if password input == user password: # Validating Password
           print("\nYou have logged in as Admin Successfully\n")
           src.Redirecting()
           src.Cls()
                               # Redirecting to Admin if user in authorized
           adm.Admin Main()
       else: # Handling the invalid password
               "\nYou have entered an invalid password. Access Denied, Please Try Again\n")
           sleep(1.5)
           # Handling Exception if username is not there
       print("\nYou have entered an invalid username.Please Try Again\n")
        sleep(1.5)
def Validate Cadet():
    """This function validates whether the user is admin"""
    roll no input = input(
        "\nEnter you Roll Number: ") # Taking Roll Number Input
    try:
        # Converting the Roll Number to Integer
        roll no input = int(roll no input)
        roll no list =src.Get Roll No List()
        if roll no input in roll no list: # Validating Roll Number
           # Password Input (Using getpass to avoid echoing of password)
           password = getpass("Enter you password: ")
           user_password = src.Get_Cadet_Password(roll_no_input)
            ifpassword == user password: # Validating password
               print("\nYou have successfully logged in as Cadet")
               try:
                   # Adding a Cadet Log to the Database
                   cursor.execute(
                       f"INSERT INTO cadet log VALUES ({roll no input}, CURRENT TIMESTAMP())")
                   conn.commit()
                   src.Redirecting()
                   # Redirecting the user to the Cadet Menu
                   cdt.Cadet Main(roll no input)
```

```
except sqlerror: # Handling the Database Exception
                  print(
                      "\nAn Error while sending data to the Database. Please Try Again")
                  sleep(1.5)
             se: # Handling Password Exception
              _print("\nYou have entered an Invalid Password, Please Try Again")
SAINIK SCHOOL KALIKIRI sleep (1.5)
       else: # Handling Roll Number Exception
           print("\nYou have entered an Invalid Roll No, Please Try Again")
           sleep(1.5)
   except ValueError:
       print("\nYou have not entered a number. Please Enter a Number")
       sleep(1.5)
def Main():
   """The main definition to start the program"""
   src.Cls()
   src.Main Heading()
   while True: # To make the options visible everytime
       # Printing the Main Menu
       print("-----\n")
       print("Press (1) to log in as Admin")
       print("Press (2) to log in as Cadet")
       print("Press(3) to exit the program")
       # Dictionary to navigate to the required functions
       admin dict = {'1': Validate Admin,
                    '2': Validate Cadet,
                    '3': src.Exit}
       main input = input("Enter a valid input from the above options: ")
       # Validating main input if true it will be navigated to the function
       if main input in admin dict:
           # Calling the function based on the dictionary
           admin dict[main input]()
       else: # To avoid Error and display invalid message
          print("\nYou have entered an invalid input, please try again")
          sleep(1.5)
          continue
src.Calculate BMI Points()
   src.Calculate Eye Sight Points()
   src.Calculate Total Points()
   change issued medicine status()
   Main()
```

admin main.py: This file executes the admin functionalities import .... £rom to impost sleep mencine Import Medicine\_Main discharge import Admit\_Discharge\_Main from issue medicine import Issue Medicine Main SAINIK SCHOOL KALKKNI import Cadet\_Log\_Main 1 password import Admin Password Main def Admin Main(): """This function prints the main menu for the admin user""" src.Cls() src.Main Heading() while True: # Printing the Menu print("\n----- Admin Menu ----- \n") print("Press (1) to Manage Medicines") print("Press (2) to Manage Admissions/Discharges") print("Press (3) to Issue Medicines") print("Press (4) to See the Cadets' Data") print("Press (5) to Change your Password") print("Press (6) to Go to the Main Menu") print("Press (7) to Exit the Program\n") # Admin Menu Dictionary to Navigate to specific Modules admin menu dict = {'1': Medicine Main, '2': Admit Discharge Main, '3': Issue Medicine Main, '4': Cadet\_Log\_Main, '5': Admin Password Main, '7': src.Exit} # Taking the input from the User admin menu input = input("Enter your input from the above options: ") if admin menu input in admin menu dict: # Calling the function based on the dictionary admin menu dict[admin menu input]() elif admin menu input == '6': print("\nYou chose to go to the Main Menu")

sleep(1)
break

sleep(1.5)
continue

else:

print("\nYou have entered an Invalid Input. Please Try Again")

```
cadet main py: This file executes the cadet functionalities
mort ort
             ort sleep
         password import Change Cadet Password Main
from cad
from prettytable import PrettyTable
15ANNK BCHOOLKANAKR cal data import Basic Medical Data Main
# Establishing connection to the database
conn, cursor, sqlerror = src.Establish Connection()
def Leaderboard(roll no):
    """This function prints the leaderboard"""
    try:
       cursor.execute(
           f"SELECT house, total points FROM fit house ORDER BY total points desc")
       table = PrettyTable()
        table.field names = ['Rank', 'House Name', 'Points']
        for i in range (1, 5):
           house, points = cursor.fetchone()
           if points is None:
               points = 0
           table.add row([i, house, points])
       print(table)
       print("\n")
       sleep(1.5)
    except sqlerror:
       pass
def Check Logs(roll no):
    try:
       cursor.execute(f"SELECT timestamp FROM cadet log WHERE roll no = {roll no} ORDER BY timestamp
                                                                                          desc")
       data = cursor.fetchall()
        entries = 0
        log table = PrettyTable()
       log table.field names = ['Roll No', 'Time Stamp']
        for a in data:
           log table.add row([a])
           entries += 1
       print(log table)
       print(f"\nYou have logged in {entries} Times")
        sleep(1.5)
    except sqlerror:
       print ("\nAn Error Occurred while reading the data. Please Try Again")
        sleep(1.5)
```

```
def Cade Main(roll_no):
""""
tunction prints the Cadet Menu"""
    srolls()
        Main\Heading()
         rint("\n----- Cadet Menu ----- \n")
         int("Press (1) to check your Logs")
SAINIK SCHOOL KALIKIRI ress (2) to See Fit House Championship Leaderboard")
        print("Press (3) to Edit you Basic Medical Data")
       print("Press (4) to Change Your Password")
       print("Press (5) to go to the Main Menu")
       print("Press (6) to exit the Program\n")
        cadet_main_dict = {'1': Check Logs,
                           '2': Leaderboard,
                           '3': Basic Medical Data Main,
                           '4': Change Cadet Password Main}
        cadet main input = input ("Enter your input from the above options: ")
        if cadet main input in cadet main dict:
            # Calling the function based on the dictionary
            cadet main dict[cadet main input] (roll no)
       elif cadet main input == '5':
           print ("\nYou chose to go the Main Menu")
            sleep(1.5)
           src.Cls()
           break
        elif cadet main input == '6':
            src.Exit()
       else:
           print("\nYou have entered an Invalid Input. Please Try Again")
```

#### **medicine.py**: This file executes functionalities related to medicines

```
import src
from time import sleep
from prettytable import PrettyTable
from update medicine import Update Medicine
conn, cursor, sqlerror = src.Establish Connection() # Establishing connection to the database
def Medicine List():
    """This function prints the list of medicine table"""
   cursor.execute(f"SELECT * FROM medicine") # Getting data from MySql
   medicine data = cursor.fetchall()
   medicine table = PrettyTable() # Creating Table named medicine table
   medicine table.field names = ['Medicine Name', 'Usage / Indication', 'Quantity', 'Expiry Date']
    for a, b, c, d in medicine data: # Adding Data to the medicine table
       medicine table.add row([a,b,c,d])
   print("\n")
   print(medicine table,'\n')
    sleep(2)
```

```
edicine Confirmation():
        s function handles the Prerequisites before adding the new medicine to the database"""
          "\n\-- Add Medicine --\n")
          me Put = input("Enter the Medicine Name to Add: ")
              ed list, probable med table = src.Get Probable Medicine(med name input)
SAINIK SCHOOL KALKKIK input in probable med_list:
                ^{
m h}The medicine you want to enter already exists. Try Updating Them")
       sleep(1.5)
    elif probable med list:
       print("\nProbable Medicine Table\n")
       print(probable med table)
       print("If you medicine is not in the probable list you can add them")
       confirm add = input("Are you sure you want to add/update new medicine (Y / N): ")
       if confirm add in ['y','Y']:
           Add Medicine()
       else:
           print("\nYou chose not to add a new medicine")
           sleep(1.5)
    else:
       Add Medicine()
def Add Medicine():
    """This function gets required inputs and adds the new medicine to the database"""
   med name = input("Please enter the medicine name again: ")
   usage = input ("Enter the Usage / Indication of the Medicine: ")
   quantity = input("Enter the quantity of the Medicine: ")
   print("\nPlease Enter the Medicine Expiry Date Carefully")
   med date = src.Input Date()
    trv:
       cursor.execute(f"INSERT INTO medicine VALUES ('{med name}','{usage}',
{quantity},'{med date}')")
       conn.commit()
       print("\nYou have successfully added a new medicine to the Database.")
       sleep(1.5)
    except sqlerror:
       print ("\nAn Error occurred while sending data to the medicine. Please Try Again")
       sleep(1.5)
def Update Medicine Confirmation():
    """This function manages the prerequisites before updating the medicine
   and redirects it the update medicine module"""
   print("\n-- Update Medicine --")
   med name = input("Enter the Medicine Name: ")
   probable med list, probable med table = src.Get Probable Medicine (med name)
    if med name in probable med list:
       Update Medicine (med name)
```

```
robable med list:
          nt|("\nProbable Medicine Table\n")
           nt (probable med table)
          int (III) the medicine is not in the probable list you can update them")
              add = input("Are you sure you want to add new medicine (Y / N): ")
SAINIK SCHOOL KALIKIRI rm_add in ['Y','y']:
                t("\nPlease Enter the Medicine Name as in the Table")
           second med name = input("Please Enter the medicine as in Table: ")
           if second med name in med name:
               Update Medicine(second_med_name)
           else:
               print("\nYou have entered an Incorrect Medicine Name. Try Again")
       else:
           print("\nYou chose not to update the medicine.")
           sleep(1.5)
    else:
       print ("\nWe did not find any probable medicine for your input. Please Try Again")
       sleep(1.5)
def See Expiry():
   print("\n-- See Expiry --\n")
   medicine table, expiry list = src.Scan For Expiry()
    if medicine table:
       print(medicine table)
       sleep(1.5)
       print("\nNo Medicines have expired Till Date.")
       sleep(1.5)
def Delete Expired Medicine():
   print("-- Delete Expired Medicine")
   medicine_table , expiry_list = src.Scan For Expiry()
    if medicine table:
       print(medicine_table)
       med input = input("Enter the Medicine you want to delete: ")
       if med input in expiry list:
           cursor.execute(f"DELETE FROM medicine WHERE medicine name = '{med input}'")
           conn.commit()
           print(f"You have successfully deleted {med input} from the database.")
           sleep(1.5)
       else:
           print ("You have entered an invalid medicine name to delete. Please Try Again.")
           sleep(1.5)
```

```
("There are no expired medicine. You don't need to delete any of them")
       rcine Main():
SAINIK SCHOOL KALKING tion runs the Medicine Management Menu"""
   src.Cls()
  while True:
      print("\n----- Medicine Management Menu-----\n")
      print("Press (1) to see the Medicine List")
      print("Press (2) to Add a Medicine")
      print("Press (3) to See Expired Medicines")
      print("Press (4) to Update a Medicine")
      print("Press (5) to Delete a Expired Medicine")
      print("Press (6) to go to Admin Menu")
      print("Press (7) to Exit the Program\n")
      medicine dict = {'1' : Medicine List,
                       '2' : Add Medicine Confirmation,
                       '3' : See Expiry,
                       '4' : Update Medicine Confirmation,
                       '5' : Delete Expired_Medicine,
                       '7' : src.Exit}
      medicine input = input("Enter a valid input from the above options: ")
      if medicine input in medicine dict:
          medicine dict[medicine input]() # Calling the function based on the dictionary
      elif medicine input == '6': # To break the loop for Admin Menu
          print("\nYou chose to go to the Admin Menu")
          sleep(1.5)
          break
      else: # Handling Invalid input exception
          print("You have entered an invalid input, Please Try Again")
          sleep(1.5)
          continue
```

#### **update\_medicine.py**: This file executes functionalities related to medicines

```
import src
from time import sleep

# Establishing connection to the database
conn, cursor, sqlerror = src.Establish_Connection()

def Update_Medicine_Name(med_name):
    print("\n-- Update Medicine Name --\n")
    new_med_name = input("Enter the New Medicine Name: ")

try:
    cursor.execute(
```

```
f"UPDATE medicine SET medicine name = '{new med name}' WHERE medicine name =
             commit()
          nn,
             You have successfully updated the name of the medicine.")
SAINIK SCHOOL KALIKIRI
            "\nAn Error Occurred while sending data. Please check the Medicine Name Again.")
        sleep(1.5)
def Update Usage(med name):
   print("\n-- Update Medicine Usage / Indication --\n")
   new usage = input("Enter the New Usage / Indication: ")
    trv:
       cursor.execute(
           f"UPDATE medicine SET usage = '{new usage}' WHERE medicine name = '{med name}'")
       conn.commit()
       print ("\nYou have successfully updated the Usage / Indication of the Medicine")
        sleep(1.5)
    except sqlerror:
       print ("An Error occurred while sending the data to the database. Please Try Again")
        sleep(1.5)
def Update Quantity(med name):
   print("\n-- Update Quantity --\n")
   quantity = input ("Enter the Updated quantity: ")
        quantity = int(quantity)
        try:
            cursor.execute(
                f"UPDATE medicine SET quantity = {quantity} WHERE medicine name = '{med name}'")
           conn.commit()
           print("\nYou have successfully updated the quantity")
           sleep(1.5)
        except sqlerror:
           print(
                "\nAn Error occurred while sending data to the database. Please Try Again")
            sleep(1.5)
    except ValueError:
       print ("\nYou have entered an invalid value for quantity. Please Try Again")
        sleep(1.5)
```

```
printer the new Expiry Date")
       te = src.Input Date()
    net
             10
             execute (
            TOPDATE medicine SET expiry = '{new_date}' WHERE medicine_name = '{med_name}'")
       Bonn.commit()
SAINIK SCHOOL KALIKIRI
       print("\nYou have successfully updated the expiry date")
       sleep(1.5)
    except sqlerror:
       print ("\nAn Error occurred while sending data to the database. Please Try Again")
       sleep(1.5)
def Update Medicine(med name):
   while True:
       print("\n-- Update Medicine --\n")
       print("Press(1) to Update the Medicine Name")
       print("Press (2) to Update the Usage / Indication")
       print("Press (3) to Update the Quantity")
       print("Press (4) to Update the Expiry Date")
       print("Press (5) to go back to Manage Medicine Menu")
       print("Press (6) to Exit the Program\n")
       update dict = {'1': Update Medicine Name,
                      '2': Update Usage,
                      '3': Update_Quantity,
                      '4': Update Expiry}
       update input = input ("Enter a valid input from the Above Options: ")
       if update input in update dict:
           update dict[update input] (med name)
       elif update_input == '5':
           print("\nYou chose to go to the Manage Medicine Menu")
           sleep(1.5)
           break
       elif update input == '6':
           src.Exit()
           print("\nYou have entered an invalid option. Please Try Again")
           sleep(1.5)
```

issue medicine.py: This file executes functionalities related to medicines

```
from the import sleep
               Te import PrettyTable
        tyta
  Establishing connection to the database
SAINIK SCHOOL KALKIR qlerror = src.Establish Connection()
def Issue Medicine Confirmation():
   print("\n --Issue Medicine --")
   i = 1
   roll no = input("Enter the Roll Number: ")
   first value = None
   second value = None
   while True:
       try:
           roll no = int(roll no)
           med name = input("Enter the Medicine Name: ")
           probable medicine list, probable table = src.Get Probable Medicine(
               med name)
           if med name in probable medicine list:
               confirmation = input(
                   "\nAre you sure you want to issue the medicine (Y / N): ")
               if confirmation in ['Y', 'y']:
                   first value = Expiry Check(roll no, med name)
               else:
                   print("\nYou chose not to issue the medicine")
                   sleep(1.5)
           elif probable medicine list:
               print("\nProbable Medicine Table")
               print(probable table)
               print(
                   "If the medicine is in the Probable list. Please Enter the Medicine Name as in the
                                                                                          Table")
               new med name = input("Please Enter the medicine as in Table: ")
               if new med name inprobable medicine list:
                   confirm input = input(
                       "Are you sure you want to issue this medicine (Y / N): ")
                   if confirm input in ['Y', 'y']:
                       second_value = Expiry_Check(roll_no, new_med_name)
                       print("\nYou chose not to issue the medicine")
                       sleep(1.5)
               else:
                       "\nYou have entered the medicine name wrong for two times.Try Again\n")
                   sleep(1.5)
                   break
       except ValueError:
           print("\nYou have entered an invalid value for Roll No.Please Try Again")
```

```
sleep(1.5)
           figst_value or second value:
             ext medicine = input(
              You have issued {i} Medicine(s) to Roll No {roll_no}.Do you want to issue more(Y /
             fnext medicine in ['Y', 'y']:
                 += 1
SAINIK SCHOOL KALIKIRI continue
            else:
               print("\nYou have closed the issue medicine.\n")
               sleep(1.5)
               break
        else:
           print("\nYou have not issued any medicine yet! Try Again\n")
           sleep(1.5)
           break
def Expiry Check(roll no, med name):
    check = src.Check Expiry(med name)
    if check:
        return Issue Medicine (roll no, med name)
       print("\nThe medicine has expired. You cannot Issue the Medicine")
       sleep(1.5)
        return False
def Issue Medicine (roll no, med name):
    qty = input(f"Enter the Quantity you want to Issue for '{med name}': ")
    try:
        qty = int(qty)
       cause = input(f"Enter the Cause for Issuing Medicine '{med name}':")
       print ("Enter the date by when the medicine should be consumed:")
       completion = src.Input Date()
        try:
            cursor.execute(
                f"INSERT INTO issue medicine VALUES ({roll no},'{cause}','{med name}',
                                {qty}, CURRENT TIMESTAMP(), '{completion}', 'Under Medication')")
           conn.commit()
           cursor.execute(
                f"UPDATE medicine SET quantity = quantity - {qty} WHERE medicine name = '{med name}'")
           conn.commit()
               f"\nYou have successfully issued '{med name}' to Roll No {roll no}")
            sleep(1.5)
           return True
        except sqlerror:
```

```
print(
              "\nAn Error occurred while sending data to the database. Please Try Again")
           sleep (1.5)
            eturn False
              lueError:
         int("\nYou have entered an invalid value for Quantity. Please Try Again")
SAINIK SCHOOL KALIKIRI alse
def Under Medication():
   print("-- Under Medication List --")
       cursor.execute("select issue medicine.roll no, cadet.name, cadet.class, issue medicine.cause,
medicine, quantity, timestamp, end date, status from issue medicine natural join cadet where
issue medicine.status = 'Under Medication'")
       data = cursor.fetchall()
       med table = PrettyTable()
       med table.field names = ['Roll No', 'Name', 'Class', 'Cause',
                                'Medicine', 'Qty', 'Timestamp', 'End Date', 'Status']
       for row in data:
           med table.add row(row)
       print(med table)
       print('\n')
   except sqlerror:
       print ("An Error occurred while fetching the data. Please Try Again")
       return None
def See Issued Medicine():
   print("\n-- Issued Medicine Table\n")
   trv:
       cursor.execute("""SELECT
issue medicine.roll no,name,class,cause,medicine,quantity,timestamp,end date,status
       FROM issue medicine, cadet WHERE cadet.roll no = issue medicine.roll no ORDER BY timestamp
desc""")
       data = cursor.fetchall()
       table = PrettyTable()
       table.field_names = ['Roll No', 'Name', 'Class', 'Cause',
                            'Medicine', 'Qty', 'TimeStamp', 'End Date', 'Status']
       for roll no, name, clas, cause, medicine, quantity, timestamp, end date, status in data:
           table.add row([roll no, name, clas, cause, medicine,
                          quantity, timestamp, end date, status])
       print(table)
       sleep(1.5)
       print('\n')
    except sqlerror:
       print ("\nAn Error occurred while parsing the Data. Please Try Again.")
       sleep(1.5)
```

```
sued medicine status():
          s function changes the cadet's medication status as per End Date"""
          .execute(
          elect from issue medicine where end date < current_date() and status = 'Under
           Edrsor.fetchall()
SAINIK SCHOOL KALIKIRI
        return None
   updated entries = 0
    for row in data:
       time id = row[4]
       print(type(time id))
       status = 'Healthy'
       cursor.execute(
           f"UPDATE issue medicine set status = 'Healthy' where timestamp = '{time id}'")
        conn.commit()
       updated entries += 1
   print("Number of updated Entries =", updated entries)
def Issue Medicine Main():
   src.Cls()
   while True:
       print("----- Issue Medicine Menu ----- \n")
       print("Press (1) to Issue Medicine")
       print("Press (2) to see list of Cadet's Under Medication")
       print("Press (3) to see the list of all Issued Medicines")
       print("Press (4) to go to Admin Menu")
       print("Press (5) to exit the Program\n")
        issue dict = { '1': Issue Medicine Confirmation,
                      '2': Under Medication,
                      '3': See Issued Medicine,
                      '5': src.Exit}
        issue input = input ("Enter a valid input from the available options: ")
        if issue input in issue dict:
           # Calling the function based on the dictionary
           issue dict[issue input]()
        elif issue input == '4':
           print("\nYou chose to go the Admin Menu")
           sleep(1.5)
           break
        else:
           print("\nYou have entered an Invalid Input. Please Try Again\n")
           sleep(1.5)
           continue
```

admission discharge.py: This file executes the functionalities related to admissions and discharges et sleep import arc SAINIK SCHOOL KALIKIRI # Establishing connection to the database conn, cursor, sqlerror = src.Establish Connection() def Admit Cadet(): """This function lets the admin user to admit a cadet""" print("\n--- Admit Cadet ---\n") roll no input = input ("Enter the Roll No of the Cadet: ") roll no input = int(roll no input) roll no check = src.Check Roll No(roll no input) if roll no check: reason = input ("Enter the reason for Admission: ") print("Enter the Date of the Discharge") discharge date = src.Input Date() confirmation = input (" $\n$ Please Confirm the admission (Y / N): ") if confirmation in ['Y', 'y']: database confirmation = src.Check If Admitted(roll no input) if not database confirmation: try: cursor.execute( f"INSERT INTO admission VALUES ({roll no input}, '{reason}', '{discharge date}', CURRENT TIMESTAMP(), 'Admitted', Null)") conn.commit() src.Add\_Admission\_Points(roll\_no\_input) cursor.execute( f"SELECT name FROM cadet WHERE roll no = {roll no input}") cadet name = cursor.fetchone()[0] print(f"\nYou have successfully admitted {cadet name}") sleep(1.5)except sqlerror: print( "\nAn Error occurred while sending data to database. Please Try Again") sleep(1.5)else: print("\nThe cadet can't be admitted") sleep(1.5)print("\nYou have cancelled the admission.\n") sleep(1.5)else: print("\nThe Entered Roll Number does not Exists. Please Try Again\n") sleep(1.5)except ValueError:

```
int(
             NYou have not entered a correct value for the Roll Number. Please Try Again")
          eep(1.5)
              10
             @adet():
       motion lets admin user to discharge a cadet"""
    print m-- Discharge Cadet -- \n")
SAINIK SCHOOL KALIKIRI
       cursor.execute(f"""SELECT admission.roll no, cadet.name, admission.cause,
admission.discharge date
                       FROM admission, cadet WHERE cadet.roll no = admission.roll no and
admission.status = 'Admitted'""")
       data = cursor.fetchall()
       if data is None:
           print("No cadet is admitted. You can't discharge anyone.\n")
           sleep(1.5)
           table = PrettyTable()
           table.field names = ['Roll No', 'Name', 'Cause', 'Discharge Date']
           roll no list = []
           for no, name, cause, date in data:
               table.add row([no, name, cause, date])
               roll no list.append(no)
           print(table)
           roll no=input(
               "Enter the Roll Number of the Cadet to Discharge: ")
           try:
               roll no = int(roll no)
               if roll no in roll no list:
                   try:
                       cadet name = src.Get Cadet Name(roll no)
                       confirm = input(
                           f"Are you sure you want to discharge {cadet name} (Y / N): ")
                       if confirm in ['y', 'Y']:
                           timestamp = src.Get Latest Timestamp(roll no)
                           try:
                               cursor.execute(f"""UPDATE admission SET status = 'Discharged',
                                               discharge timestamp = current timestamp() WHERE
                                                   roll no = {roll no} and
                                               timestamp = '{timestamp}'""")
                               conn.commit()
                               print(
                                   f"\nYou have successfully discharged {cadet name}")
                               sleep(1.5)
                           except sqlerror:
                               print(
                                   "\nAn Error occurred while updating the data. Please Try Again")
                               sleep(1.5)
                       else:
                           print(f"\nYou chose not to discharge {cadet name}")
                           sleep(1.5)
```

```
except ValueError:
                       print(
                           "\nYou have entered an invalid value for Roll Number. Please Try Again")
                       sleep(1.5)
               else:
                   print(
                       "\nYou can't discharge the cadet as the cadet is not admitted.")
 SAINIK SCHOOL KALIKIRI
                   sleep(1.5)
           except ValueError:
               print("You have entered an invalid Roll No. Please Try Again")
               sleep(1.5)
    except sqlerror:
       print("\nAn Error Occurred while parsing the Admission Data. Please Try Again\n")
       sleep(1.5)
def Extend Discharge Confirmation():
   """This function takes the required input to extend the discharge date of the cadet"""
   print("\n-- Extend Discharge --\n")
   Active Admissions()
   roll no input = input(
        "Enter the Roll Number of the cadet to extend Discharge: ")
    try:
       roll no input = int(roll no input)
       confirm = input("\nDo you want to extend the discharge date (Y / N): ")
       if confirm in ['y', 'Y']:
           Extend Discharge (roll no input)
           print(f"You chose not to extend the discharge of the cadet")
    except ValueError:
       print ("\nAn Error Occurred while evaluating roll number or connecting to the database.")
       sleep(1.5)
def Extend Discharge(roll no):
    """This function extends the discharge date of a admitted cadet"""
   print("\nEnter the new data for discharge")
   new date = src.Input Date()
   timestamp = src.Get Latest Timestamp(roll no)
    try:
       cursor.execute(f"""UPDATE admission SET discharge date = '{new date}' WHERE roll no =
{roll no} AND
                       status = 'Admitted' and timestamp = '{timestamp}'""")
       conn.commit()
       print("\nYou have successfully updated the discharge date")
    except sqlerror:
       print("\nAn Error Occurred while sending the data. Please Try Again")
       sleep(1.5)
def Admission Logs():
    """This function prints the admission logs to the admin user"""
   print("\n-- Admission Logs --\n")
   try:
```

```
rsor.execute(f"""SELECT admission.*,cadet.name FROM admission,cadet WHERE admission.roll no
          ollino
                       ORDER BY timestamp DESC""")
             = cursor.fetchall()
              50
               PrettyTable()
            field names = ['Roll No', 'Name', 'Cause',
                            'Discharge On', 'Admission Time', 'Status']
SAINIK SCHOOL KALIKIRI
        for roll, cause, discharge, timestamp, status, discharge time, name in data:
           table.add row([roll, name, cause, discharge, timestamp, status])
       if data is None:
           print("\nThere are no admission Logs to display")
           sleep(1.5)
       else:
           print(table)
           print("\n")
    except sqlerror:
       print(
            "\nAn Error Occurred while receiving data from the database. Please Try Again")
       sleep(1.5)
def Discharge Logs():
    """This functions prints all the discharge logs to the admin user"""
   print("\n-- Discharge Logs --\n")
       cursor.execute(f"""SELECT admission.*, cadet.name FROM admission, cadet WHERE
admission.roll no = cadet.roll no
                       AND discharge timestamp IS NOT NULL AND status = 'Discharged'
                       ORDER BY discharge timestamp DESC""")
       data = cursor.fetchall()
       table = PrettyTable()
       table.field names = ['Roll No', 'Name', 'Cause',
                             'Discharge Date', 'Admission Time', 'Status', 'Discharged On']
       for roll, cause, discharge, timestamp, status, discharge time, name in data:
           table.add row([roll, name, cause, discharge,
                          timestamp, status, discharge time])
       if data is None:
           print("\nThere are discharges to show")
           sleep(1.5)
       else:
           print(f"\n{table}")
           sleep(1.5)
   except sqlerror:
       print(
           "\nAn error occurred while receiving data from the database. Please Try Again")
       sleep(1.5)
def Active Admissions():
    """This function prints all the active admissions to the admin user"""
   print("\n-- Active Admissions --")
       cursor.execute(f"""SELECT admission.roll no, cadet.name, admission.cause,
admission.discharge date,
```

```
admission.timestamp FROM admission, cadet WHERE cadet.roll no =
              no and
                       status = 'Admitted'""")
               cursor.fetchall()
               √PrettyTable()
             field names = ['Roll No', 'Name', 'Cause',
                            'Discharge Date', 'Time of Admission']
SAINIK SCHOOL KALIKIRI
       for no, name, cause, discharge, time in data:
           table.add row([no, name, cause, discharge, time])
       if data is None:
           print("\nThere are No Active Admissions")
           sleep(1.5)
       else:
           print(table)
           print('\n')
   except sqlerror:
       print("\nAn Error occurred while parsing the data. Please Try Again.")
def Admit Discharge Main():
   """This function prints the menu of the discharge to the admin user"""
   src.Cls()
   while True:
       print("\n----- Admission/Discharge Menu -----\n")
       print("Press (1) to Admit a Cadet")
       print("Press (2) to Discharge Cadet")
       print("Press (3) to Extend Discharge")
       print("Press (4) to see Admission Logs")
       print("Press (5) to see Discharge Logs")
       print("Press (6) to see Active Admissions")
       print("Press (7) to go to Admin Menu")
       print("Press (8) to Exit the Program\n")
       admit dict = {'1': Admit Cadet,
                     '2': Discharge Cadet,
                     '3': Extend Discharge Confirmation,
                     '4': Admission Logs,
                     '5': Discharge Logs,
                     '6': Active Admissions,
                     '8': src.Exit}
       admit input = input ("Enter a Valid input from the above options: ")
       if admit input in admit dict:
           # Calling the function based on the dictionary
           admit dict[admit input]()
       elif admit input == '7':
           print("\nYou chose to go the Admin Menu")
           sleep(1.5)
           break
       else:
           print("\nYou have entered an Invalid Input. Please Try Again")
           sleep(1.5)
           continue
```

basic medical\_data.py: This file execute the cadet functionalities of managing cadet medical data ort sleep SAINIK SCHOOL KALIKIRI def Height Update (roll no): """This function shows and updates the height of the cadet""" cursor.execute(f"SELECT height FROM medical data WHERE roll no = {roll no}") present height = cursor.fetchone()[0] if present height is None: update input = 'Y' else: print(f"\nYour Height according to the database is : {present height}") update input = input(f"Do you want to change your height (Y / N): ") if update input in ['y', 'Y']: print("\nYou chose to update your height") print("Example : 156.20") new height = input("Enter you height in centimeters: ") try: new height = float(new height) new height = round(new height, 2) cursor.execute(f"UPDATE medical data SET height = {new height} WHERE roll no = {roll no}") conn.commit() value = src.Update BMI (roll no) if value: print("\nYour BMI is updated") sleep(1.5)else: print("\nYour BMI is not updated check your Weight") sleep(1.5)except ValueError: print ("\nYou have entered an Invalid value for the height. Please Try Again") sleep(1.5)else: print("\nYou chose not to update your height") sleep(1.5)except sqlerror: pass

```
the Update (roll no):
       s function shows and updates the weight of the cadet"""
          rson Recute(f"SELECT weight FROM medical data WHERE roll no = {roll no}")
              weight = cursor.fetchone()[0]
SAINIK SCHOOL KALIKIKI t_weight is None:
           print(f"\nYour Weight according to the database is : {present weight}")
           update input = input(f"Do you want to change your weight (Y / N): ")
       if update input in ['y', 'Y']:
           print("\nYou chose to update your weight")
           print("Example : 66.20")
           new weight = input("Enter you weight in kilograms: ")
           try:
               new weight = float(new weight)
               new weight = round(new weight, 2)
               cursor.execute(f"UPDATE medical data SET weight = {new weight} WHERE roll no =
                                                                                    {roll no}")
               conn.commit()
               value = src.Update BMI(roll no)
               if value:
                   print("\nYour BMI is updated")
                   sleep(1.5)
               else:
                   print("\nYour BMI is not updated check your Height")
                   sleep(1.5)
           except ValueError:
               print ("\nYou have entered an Invalid value for the weight. Please Try Again")
               sleep(1.5)
       else:
           print("\nYou chose not to update your weight")
           sleep(1.5)
   except sqlerror:
       pass
def Eye Sight Confirm(roll no):
    """This function confirms whether a cadet is having eye sight or not"""
    trv:
       cursor.execute(f"SELECT eye 1, eye r FROM medical data WHERE roll no = {roll no}")
       left, right = cursor.fetchone()
       if left and right is None:
           print("\nYou have not entered you Eye Sight till now.Please Update")
           sleep(1)
```

```
Eye Sight Update (roll no)
            print("Your Present Eye Sight")
            print (f"Left Eye : {left}")
             fit(f"Right Eye: {right}\n")
SAINIK SCHOOL KALIKIRI irmation = input ("Do you want to update your Eye Sight (Y / N): ")
                nfirmation in ['y','Y']:
               Eye_Sight_Update(roll_no)
            else:
               print("\nYou chose not to update your eye sight")
               sleep(1.5)
    except sqlerror:
       print ("\nAn error occurred while parsing the data from the database. Please Try Again")
        sleep(1.5)
def Eye Sight Update(roll no):
    """This function updates eye sight of the cadet"""
    confirm input = input("Do you have Eye Sight (Y / N): ")
    if confirm input in ['y', 'Y']:
        print("\nExample: -1.25, ")
       print("If you have perfect vision for an Eye. Please Enter Zero\n")
        r eye = input("Enter your Left Eye Sight: ")
        l eye = input("Enter your Right Eye Sight: ")
        try:
           cursor.execute(f"UPDATE medical data SET eye r = {r eye}, eye l = {l eye} WHERE roll no =
{roll no}")
           conn.commit()
            print("\nYou have successfully updated your eye sight")
            sleep(1.5)
        except sqlerror:
           print("\nAn error occurred while sending the data to the database")
           sleep(1.5)
    else:
        print("\nYou don't have Eye Sight")
        sleep(1.5)
def BMI Check(roll no):
    """This function prints the cadet's BMI and other data"""
   print("\nYou chose to see your BMI")
        cursor.execute(f"""SELECT medical data.roll no, cadet.name, cadet.class, medical data.height,
medical data.weight,
                       medical data.BMI, medical data.BMI status FROM medical data, cadet
                       WHERE medical data.roll no = cadet.roll no and cadet.roll no = {roll no}""")
        roll, name, clas, height, weight, bmi, bmi status = cursor.fetchone()
       print(f"Roll Number: {roll no}")
       print(f"Cadet Name: {name}")
        print(f"Class: {clas}")
```

```
int(f"Cadet height: {height}")
          ptdf"Cadet Weight: {weight}")
       bint(f"Cadet BMI: {bmi}")
          nt√(f"Cadet BMI Status: {bmi status}\n")
           sqlerror:
             	bigcup 	ag{"}nAn Error occurred while parsing the data. Please Try Again")
SAINIK SCHOOL KALIKIRI 5)
def Basic Medical Data Main(roll no):
   """This function prints the menu of the Updating of the Medical Data"""
   src.Cls()
   while True:
       print("\n-- Personal Medical Data --\n")
       print("Press (1) to update your height")
       print("Press (2) to update your weight")
       print("Press (3) to update your eye sight")
       print("Press (4) to check you Body Mass Index")
       print("Press (5) to go to Cadet Menu")
       print("Press (6) to exit the program\n")
        medical dict = {'1' : Height Update,
                        '2': Weight Update,
                        '3' : Eye_Sight_Confirm,
                        '4' : BMI_Check}
       medical input = input ("Enter your input from the available options: ")
        if medical input in medical dict:
           medical dict[medical input] (roll no)
       elif medical_input == '5':
           print("\nYou chose to go to Cadet Menu")
           sleep(1.5)
           break
       elif medical input == '6':
           src.Exit()
       else:
           print("\nYou have entered an invalid input. Please Try Again")
           sleep(1.5)
           continue
```

```
cadet log py: This file handles the cadets logs
          import sleep
                Æ import PrettyTable
SAINIK SCHOOL KALIKIRI et Login():
    print("-- List of Cadets' Logins --")
    conn, cursor, sqlerror = src.Establish Connection()
    rollno = input("Enter the Roll Number to see Log Ins:")
    try:
       rollno =int(rollno)
        try:
           table = PrettyTable()
           table.field names = ['Roll No', 'Name', 'Class', 'Timestamp']
           cursor.execute(
                f"SELECT cadet log.roll no, name , class, timestamp from cadet log, cadet WHERE
cadet log.roll no = {rollno} and cadet.roll no = cadet log.roll no ORDER BY timestamp desc")
           data = cursor.fetchall()
            for row in data:
               table.add row(row)
           print(table)
           print("\n")
           sleep(1.5)
        except sqlerror:
           print ("\nAn Error Occurred while parsing the data. Please Try Again")
           sleep(1.5)
   except ValueError:
       print("\n<{rollno}> is invalid. Please Try Again")
        sleep(1.5)
    conn.close()
def List_Of_Cadets_Logins():
   conn, cursor, sqlerror = src.Establish_Connection()
    query = "select cadet log.roll no, cadet.name, count(cadet log.roll no) as 'Logged in Times',
cadet.class, cadet.section, cadet.house from cadet_log natural join cadet group by cadet_log.roll_no"
       cursor.execute(query)
       data = cursor.fetchall()
        table = PrettyTable()
        table.field names = ['Roll No', 'Name',
                             'No of Times logged in', 'Class', 'Section', 'House']
        for row in data:
           table.add row(row)
       print(table)
       print("\n")
       sleep(1.5)
   except sqlerror:
       print ("\nAn Error Occurred while parsing the data. Please Try Again")
        sleep(1.5)
    conn.close()
```

```
Medications():
       "-H Cadet Medications --")
         \rho = 1put ("Enter the roll no : ")
         curs sqlerror = src.Establish Connection()
         Himo = int(rollno)
              execute(f"SELECT * FROM cadet WHERE roll no = {rollno}")
SAINIK SCHOOL KALIKIRI ta = cursor.fetchone()
           cursor.execute(
               f"select * from issue medicine where roll no = {rollno}")
           medicine data = cursor.fetchall()
           table = PrettyTable()
           table.field names = ['Roll No', 'Cause', 'medicine',
                               'quantity', 'timestamp', 'end_date', 'status']
           if len(cadet data) == 0:
               print('The entered roll no does not exists. Please Try Again')
               conn.close()
               return None
           print("----")
           print(f"Roll No : {cadet data[0]}")
           print(f"Name : {cadet data[1]}")
           print(f"Class : {cadet data[2]}")
           print(f"Section: {cadet data[3]}")
           print(f"House : {cadet_data[4]}")
           print("----")
           if medicine data == []:
               print("Nothing to show. No data is found for the cadet.")
               conn.close()
               return None
           for row in medicine data:
               table.add row(row)
           print(table)
           sleep(1.5)
       except sqlerror:
           print ("An Error Occurred while parsing the Data. Please Try Again")
           sleep(1.5)
   except ValueError:
       print("You have entered an invalid roll no. Please Try Again")
       sleep(1.5)
    conn.close()
def Cadet Admissions():
   conn, cursor, sqlerror = src.Establish Connection()
   rollno = input ("Enter the Roll Number to see the Admissions:")
   try:
       rollno = int(rollno)
       cursor.execute(f"SELECT * FROM cadet WHERE roll no = {rollno}")
       cadet data = cursor.fetchone()
       if len(cadet data) == 0:
           print(f"<{rollno}> does not exists. Please Try Again")
           conn.close()
           return None
       print(" -----")
       print(f"Roll No : {cadet data[0]}")
       print(f"Name : {cadet data[1]}")
       print(f"Class : {cadet data[2]}")
       print(f"Section: {cadet data[3]}")
       print(f"House : {cadet data[4]}")
```

```
int(" -----")
            Cursor.execute(f"select * from admission where roll no = {rollno}")
           data = cursor.fetchall()
           take = PrettyTable()
              e.field names = [
               'Roll No', 'Cause', 'Discharge Date', 'Timestamp', 'Status', 'Discharge Timing']
            <u>for</u>row in data:
SAINIK SCHOOL KALIKIRI able.add_row(row)
           print(table)
           print('\n')
           sleep(1.5)
       except salerror:
           print ("An Error Occurred while parsing the data. Please Try Again")
           sleep(1.5)
   except ValueError:
       print(f"<{rollno}> is an invalid input. Please Try Again")
       sleep(1.5)
    conn.close()
def Cadet Log Main():
   src.Cls()
   while True:
       print("----- Cadet Log Menu ----- \n")
       print("Press (1) to see List of Cadets' Login")
       print("Press (2) to see List of Cadet Login")
       print("Press (3) to see Cadet Medications")
       print("Press (4) to see Cadet Admissions/Discharges")
       print("Press (5) to go to Admin Menu")
       print("Press (6) to Exit the Program\n")
       cadet log dict = {'1': List Of Cadets Logins,
                         '2': List Of Cadet Login,
                         '3': Cadet Medications,
                         '4': Cadet Admissions,
                         '6': src.Exit}
       cadet log input = input ("Enter your input from the above options: ")
       if cadet log input in cadet log dict:
           # Calling the function based on the dictionary
           cadet_log_dict[cadet_log_input]()
       elif cadet log input == '5': # Taking to Admin Menu
           print("\nYou chose to go the Admin Menu")
           sleep(1.5)
           break
       else:
           print("\nYou have entered an Invalid Input. Please Try Again")
           continue
```

admin password.py: This file handles the passwords of the admin users ort sleep a import getpass SAINIK SCHOOL KALIKIRI error = src.Establish\_Connection() # Establishing connection to the database def Change Password (username): """This function helps the admin user to change his password""" new pass 1 = getpass("Enter your new password: ") new pass 2 = getpass("Please Enter you new password Again: ") if new\_pass\_1 == new\_pass\_2: try: cursor.execute(f"UPDATE admin user SET password = '{new pass 1}' WHERE username = '{username}'") conn.commit() except sqlerror: print ("\nAn Error occurred while sending data to the database. Please Try Again") sleep(1.5)else: print("\nThe Entered Passwords Do Not Match. Please Try Again.") sleep(1.5)def Admin Password Main(): """This function verifies if the user is authorized to change his password""" print("\n-- Change Password --\n") print("First Prove your Identity to change your password") username = input("Enter your Username: ") username list = src.Get Admin Username List() if username in username list: password = getpass("Enter your Password: ") table password = src.Get Admin User Password(username) if password in table password: print("\nYou are authorized to change you password\n") sleep(1.5)Change Password (username) else: print ("Incorrect Password was Entered. Please Try Again.") else: print ("\nSorry. The Entered username does not exists. Please Try Again.") sleep(1.5)

```
cadet password.py: This file handles the passwords of the cadet users
moor
              ort sleep
           a/import getpass
SAINIK SCHOOL KALIKIRI error = src.Establish_Connection() # Establishing connection to the database
def Change Password(roll no):
    """This function gets the new password and changes the password in the database"""
   pass 1 = getpass("Enter your new Password: ") # Getting new Password
   pass 2 = getpass("Enter your new Password Again: ")
    if pass 1 == pass 2: # checking if both the passwords match
       try:
           #Sending the data to the database 'medic'
           cursor.execute(f"UPDATE cadet user SET password = '{pass 1}' WHERE roll no = {roll no}")
           conn.commit()
           print("\nYou have successfully changed your password") # Printing the success message
           sleep(1.5)
       except sqlerror: # Handling the MySql Exception
           print ("\nAn Error Occurred while sending data to the database. Please Try Again")
           sleep(1.5)
   else: # Printing Error Message when passwords do not match
       print("\nThe entered passwords do not match. Please Try Again")
       sleep(1.5)
def Change Cadet Password Main(roll no):
    """This function authorizes user for changing password"""
   print("\n-- Change Password --\n") # Printing the heading
   print("First Prove your Identity to change your password\n")
   roll list = src.Get Roll No List()
    if roll no in roll list: # checking if the roll number exists in the database
       password = getpass("Enter your password: ")
       cadet password = src.Get Cadet Password(roll no)
       if password == cadet password: # checking if the entered password matches with the database
           print("\nYou are authorized to change you password\n")
           sleep(1.5)
           Change Password(roll no) # Authorizing user for changing password
       else: # Handling Invalid password Exception
           print("You have entered an invalid password. Please Try Again")
           sleep(1.5)
    else: # Handling Invalid Roll Number Exception
       print ("The entered Roll Number does not exists. Please Try Again")
       sleep(1.5)
```

# 3. Output Screens

# The main menu of the program

----- Main Menu

Press (1) to log in as Admin

Press (2) to log in as Cadet

Press (3) to exit the program

Enter a valid input from the above options: \_

### Logging in as Admin

Enter a valid input from the above options: 1

You chose to login as admin

Enter your username: anoop

Enter you password:

You have logged in as Admin Successfully

Redirecting\_

----- Admin Menu -----

#### **Admin Menu**

- Press (1) to Manage Medicines
- Press (2) to Manage Admissions/Discharges
- Press (3) to Issue Medicines
- Press (4) to See the Cadets' Data
- Press (5) to Change your Password
- Press (6) to Go to the Main Menu
- Press (7) to Exit the Program

Enter your input from the above options:

SAINIK SCHOOL KALIKIRI

edicine Management Menu Press (4) to Update a Medicine

----- Medicine Management Menu -----

Press (1) to see the Medicine List

Press (2) to Add a Medicine

Press (3) to See Expired Medicines

Press (5) to Delete a Expired Medicine

Press (6) to go to Admin Menu

Press (7) to Exit the Program

Enter a valid input from the above options:

### Option 1 : see the medicine list

Enter a valid input from the above options: 1

Medicine Name	Usage / Indication	Quantity	Expiry Date
1.0 Catgut Suture Needles	Suturing	0	2021-10-05
2.0 Catgut Suture Needles	Suturing	0	2021-10-05
Acne Star Ointment	Acne	0	2021-10-05
Actowin nasal Drops	Clear Nasal Pathway	0	2021-10-05
Acyclofenac - P	Ortho And Muscular Pain	0	2021-10-05
Acyclovir Ointment	Herpes Infections	0	2021-10-05
Arm Sling	Arm Fracture	0	2021-10-05
Asthalin Inhaler	Bronchial Asthma And Dypnea	0	2021-10-05
Asthalin Respules	Expectorant	0	2021-10-05
Bactogen Ointment	Bactericidal Solution	0	2021-10-05
Beclasone C Ointment	Skin Infections	0	2021-10-05
Benzac AC Ointment	Skin Infections	0	2021-10-05
Betadin Gargle Solution	Ent Infections	0	2021-10-05
Betadine solution	Bactericidal Solution	0	2021-10-05
Betamethosone Ointment	Skin Infections	0	2021-10-05
Betzee Ointment	Skin Infections	i ø	2021-10-05

## Option 2 : adding a new medicine

Enter a valid input from the above options: 2

-- Add Medicine --

Enter the Medicine Name to Add: Advil

Please enter the medicine name again: Advil

Enter the Usage / Indication of the Medicine: Headache/Nausea

Enter the quantity of the Medicine: 500

Please Enter the Medicine Expiry Date Carefully

Please do enter only integers for the date

Enter the Day: 21 Enter the Month: 10 Enter the Year: 2021

You have successfully added a new medicine to the Database.

Option 3: to see the expired medicines

Enter a valid input from the above options: 3

-- See Expiry --

No Medicines have expired Till Date.

### Option 4 : to update a medicine

```
Enter a valid input from the above options: 4

-- Update Medicine --
Enter the Medicine Name: Tab Pantop -D

-- Update Medicine --

Press (1) to Update the Medicine Name
Press (2) to Update the Usage / Indication
Press (3) to Update the Quantity
Press (4) to Update the Expiry Date
Press (5) to go back to Manage Medicine Menu
Press (6) to Exit the Program

Enter a valid input from the Above Options:
```

### Option 5 : to delete an expired medicines

Enter a valid input from the above options: 5 -- Delete Expired Medicine There are no expired medicine. You don't need to delete any of them

### Admission/ Discharge Menu



```
Press (1) to Admit a Cadet
Press (2) to Discharge Cadet
Press (3) to Extend Discharge
Press (4) to see Admission Logs
Press (5) to see Discharge Logs
Press (6) to see Active Admissions
Press (7) to go to Admin Menu
Press (8) to Exit the Program

Enter a Valid input from the above options:
```

#### Option 1: to admit a cadet to the dispensary

```
Enter a Valid input from the above options: 1

--- Admit Cadet ---

Enter the Roll No of the Cadet: 433
Enter the reason for Admission: Fever
Enter the Date of the Discharge

Please do enter only integers for the date
Enter the Day: 11
Enter the Month: 2
Enter the Year: 2021

Please Confirm the admission (Y / N): y

You have successfully admitted S HARSHA VARDHAN
```

### Option 2 : discharge the cadet

```
Enter a Valid input from the above options: 2

-- Discharge Cadet --

| Roll No | Name | Cause | Discharge Date |
| 433 | S HARSHA VARDHAN | Fever | 2021-02-11 |
| +-----+
Enter the Roll Number of the Cadet to Discharge: 433
Are you sure you want to discharge S HARSHA VARDHAN (Y / N): Y

You have successfully discharged S HARSHA VARDHAN
```

ption 3: to extend the discharge date of the cadet

	2	
	नेतु रागुद्यतः	
1	2014	//
INIKS	CHOOL	KALIKIRI

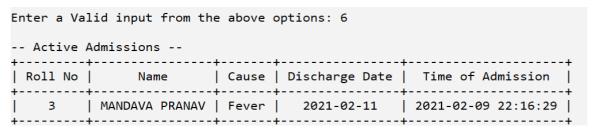
Enter a Valid input from the	above o	options: 3	
Extend Discharge			
Active Admissions			
Roll No   Name	Cause	Discharge Date	Time of Admission
3   MANDAVA PRANAV	Fever	2021-02-10	2021-02-09 21:44:34
Enter the Roll Number of the Do you want to extend the di			ge: 3
Enter the new data for disch	narge		
Please do enter only integer Enter the Day: 11 Enter the Month: 2 Enter the Year: 2021	rs for t	he date	
You have successfully update	ed the d	ischarge date	

## Option 4 : see Admission Logs

Enter a Valid input from the above options: 4  Admission Logs						
Roll No	Name	+   Cause	Discharge On	Admission Time	Status	
3   433   3   3   3   3	MANDAVA PRANAV S HARSHA VARDHAN MANDAVA PRANAV MANDAVA PRANAV MANDAVA PRANAV	Fever   Fever   Headache   Fever   Fever	2021-02-11 2021-02-11 2021-02-09 2020-10-10 2020-10-10	2021-02-09 22:16:29 2021-02-09 21:41:41 2021-02-09 21:40:35 2020-10-10 09:49:06 2020-10-10 09:49:06	Admitted     Discharged     Discharged     Discharged     Discharged	

### Option 5 : see discharge Logs

## Option 6 : see Active Admissions



### <u>Issue Medicine Menu</u>

```
Press (1) to Issue Medicine

Press (2) to see list of Cadet's Under Medication

SAINIK SCHOOL KALIPPRESS (3) to see the list of all Issued Medicines

Press (4) to go to Admin Menu

Press (5) to exit the Program

Enter a valid input from the available options:
```

### Option 1: to Issue a Medicine to the cadet

```
Enter a valid input from the available options: 1

--Issue Medicine --
Enter the Roll Number: 3
Enter the Medicine Name: Tab Pantop -D

Are you sure you want to issue the medicine (Y / N): Y
Enter the Quantity you want to Issue for 'Tab Pantop -D': 5
Enter the Cause for Issuing Medicine 'Tab Pantop -D': stomach pain
Enter the date by when the medicine should be consumed:

Please do enter only integers for the date
Enter the Day: 11
Enter the Month: 02
Enter the Year: 2021

You have successfully issued 'Tab Pantop -D' to Roll No 3
You have issued 1 Medicine(s) to Roll No 3.Do you want to issue more(Y / N): N
You have closed the issue medicine.
```

### Option 2: to see the list of cadets under medication

-	Enter a valid input from the available options: 2 Under Medication List +								
Ī	Roll No	Name	Class	Cause	Medicine	Qty		End Date	Status
Ì	3	MANDAVA PRANAV	12	stomach pain	Tab Pantop -D	5	2021-02-09 22:26:29	2021-02-11	Under Medication

## Option 3: to see the list of all Issued Medicines

Enter a valid input from the available options: 3								
Issued Medicine Table								
++   Roll No	Name	+   Class	+   Cause	+   Medicine	l Oty	 TimeStamp	+   End Date	+   Status
}+   3				      Tab Pantop -D			 	Under Medication
3	MANDAVA PRANAV	12	Stomach Ache	Tab Pantop -D	5	2021-02-09 12:14:53	2020-10-08	Healthy
3	MANDAVA PRANAV MANDAVA PRANAV	12   12	Stomach Pain Cold	Tab Pantop -D   Tab Setride	5   10	2021-02-09 12:14:53 2021-02-09 12:14:53	2020-10-08	Healthy Healthy
ا د	PIANDAVA PRANAV	12 +		Tab Setride			2020-10-09 	nearthy

Cadet Log Menu

---- Cadet Log Menu -----

Press (1) to see List of Cadets' Login

Press (2) to see List of Cadet Login

SAINIK SCHOOL KALIKIR Press (3) to see Cadet Medications Press (4) to see Cadet Admissions/Discharges

> Press (5) to go to Admin Menu Press (6) to Exit the Program

Enter your input from the above options:

### Option 1: to list of all the cadets login

Enter your input from the above options: 1

Roll No	Name	No of Times logged in	Class	Section	House
3		26		С	Godavari   Krishna

### Option 2: to see list of a specific cadet login

Enter your input from the above options: 2

-- List of Cadets' Logins --

Enter the Roll Number to see Log Ins : 3

Roll No	Name	Class	Timestamp
3	MANDAVA PRANAV	12	2021-02-09 09:40:20
3	MANDAVA PRANAV	12	2021-02-09 09:38:52
3	MANDAVA PRANAV	12	2021-02-09 09:37:40
3	MANDAVA PRANAV	12	2021-02-07 11:12:21
3	MANDAVA PRANAV	12	2021-01-17 11:06:06
3	MANDAVA PRANAV	12	2020-12-14 08:33:15
3	MANDAVA PRANAV	12	2020-12-12 19:26:12

### Option 3: to see cadet Medications

Enter your input from the above options: 3

-- Cadet Medications --Enter the roll no : 3 Roll No : 3

Name : MANDAVA PRANAV

Class : 12 Section : C House : Godavari

oll No	Cause	medicine	quantity	timestamp	end_date	status
3		Tab Pantop -D	5	2021-02-09 12:14:53	2020-10-08	Healthy
3	Stomach Pain	Tab Pantop -D	5	2021-02-09 12:14:53	2020-10-08	Healthy
3	Cold	Tab Setride	10	2021-02-09 12:14:53	2020-10-09	Healthy
3	stomach pain	Tab Pantop -D	5	2021-02-09 22:26:29	2021-02-11	Under Medicatio

### : to see a cadet's admissions & discharges

Enter your input from the above options: 4 Enter the Roll Number to see the Admissions : 3

Roll No : 3

Name : MANDAVA PRANAV

Class: 12 Section : C House : Godavari

Roll No	Cause	Discharge Date	Timestamp	Status	Discharge Timing
3	Fever	2020-10-10	2020-10-10 09:49:06	Discharged	2020-10-10 09:49:06
3	Fever	2020-10-10	2020-10-10 09:49:06	Discharged	2020-10-10 09:49:00
3	Headache	2021-02-09	2021-02-09 21:40:35	Discharged	2021-02-09 21:40:3
3	Fever	2021-02-11	2021-02-09 22:16:29	Admitted	None

### Admin – Change your password

Enter your input from the above options: 5

-- Change Password --

First Prove your Identity to change your password

Enter your Username: anoop

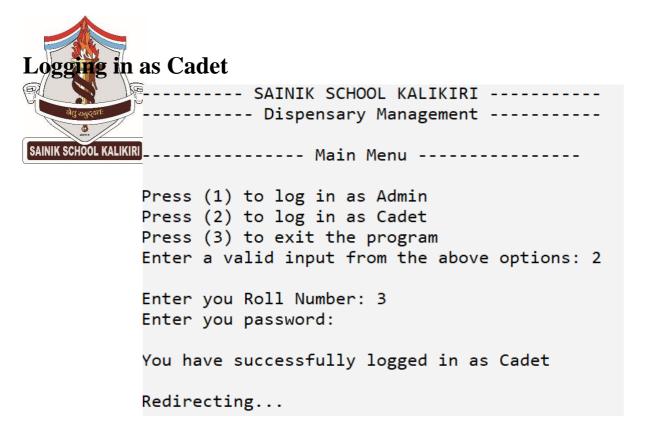
Enter your Password:

You are authorized to change you password

Enter your new password:

Please Enter you new password Again:

**Note:** To maintain privacy of the user the password won't be shown the computer screen at any point of time



#### Main Menu of the Cadet

Option 1: to check cadet logs



-	input from the above options: :	1
	Time Stamp	
3	2021-02-09 23:22:14	
3   3	2021-02-09 23:10:18     2021-02-09 23:08:34	
3	2021-02-09 09:40:20	
3	2021-02-09 09:38:52	
3	2021-02-09 09:37:40	
3	2021-02-07 11:12:21	
3	2021-01-17 11:06:06	
3	2020-12-14 08:33:15	
3	2020-12-12 19:26:12	
3	2020-12-12 19:25:25	
+	++	
You have lo	ogged in 11 Times	

Option 2 : to See Fit House Championship Leaderboard

Enter yo	our input from	_	options:	2
Rank	House Name	:		
1	Penna Krishna	0   0		
j 3 j	Godavari	0		
4	Tungabhadra	0		
++		+	ŀ	

Option 3: to Edit the cadet's Basic Medical Data

```
-- Personal Medical Data --

Press (1) to update your height
Press (2) to update your weight
Press (3) to update your eye sight
Press (4) to check you Body Mass Index
Press (5) to go to Cadet Menu
Press (6) to exit the program

Enter your input from the available options:
```

Option 4: to change cadet's password

Enter your input from the above options: 4

SAINIK SCHOOL -- Change Password --

First Prove your Identity to change your password

Enter your password:

You are authorized to change you password

Enter your new Password:

Enter your new Password Again:

You have successfully changed your password

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