SALES AND INVENTORY MANAGEMENT SYSTEM

CONTENTS

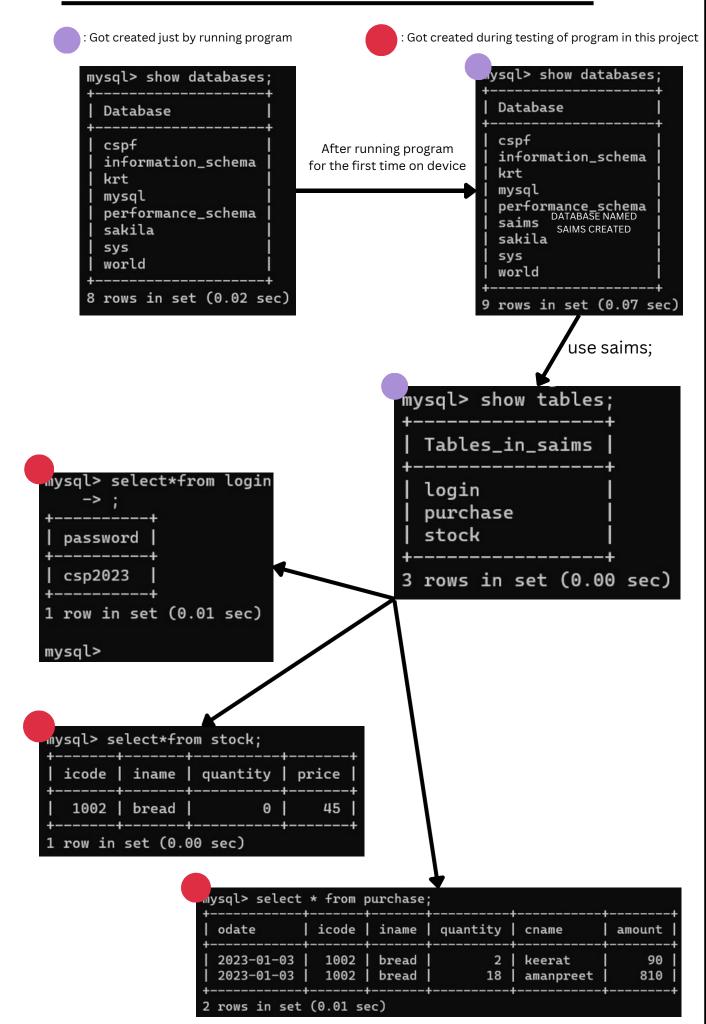# WHAT IS SAIMS ? HOW WILL IT HELP ITS USERS ?

- Sales And Inventory Management System or shortly SAIMS, is a program (*written in python*) which is designed for shops, shopping marts to assist them in managing their stock(*inventory)* and in making the record of the orders .

- This program can also be used in automating shopping marts with few upgradations.

- SAIMS has user-friendly interface that any literate person with zero knowledge of programming stuff can use this program easily.

- This program can run on any PC if user knows his/her MYSQL password, his/her username and has a IDLE to run python code.

- The program will create required database and tables on its own.

- This program occupies only 10KB in your main memory to run.

CODE AT THE BACKEND

```python
PYCODE2.PY > ...
1   import mysql.connector as con
2   import random
3
4   print('''
5   _____
6
7   WELCOME TO SALES AND INVENTORY MANAGEMENT SYSTEM
8
9   _____
10  ''')
11
12  mydb = con.connect(host = "localhost",passwd = "1234",user = "root")
13  if not mydb.is_connected():
14      print("There is some error while connecting to mysql....")
15
16  #********************************creating prerequisites on mysql********************************
17  cur = mydb.cursor()
18  cur.execute("create database if not exists saims")
19  cur.execute("use saims")
20  cur.execute("create table if not exists login(password varchar(25) not null)")
21  cur.execute("create table if not exists stock(icode int(10),iname varchar(25) not null,quantity int(3) not null ,price int(10) not null,primary key(icode))")
22  mydb.commit()
23  cur.execute("select * from login;")
24  z=0
25  for i in cur :
26      z=+1
27  if z==0 :
28      cur.execute("insert into login values('123')")#DEFAULT ADMIN PASSWORD
29      mydb.commit()
30
31
32  while True :
33      print('''
34  1)ADMIN
35  2)CUSTOMER
36  3)EXIT
37  ''')
38      choice1 = input("Enter your choice: ")
40      #********************************ADMIN********************************
41      if choice1 == "1" :
42          paswd = input("Enter the password : ")
43          cur.execute("select * from login;")
44          for i in cur :
45              password, = i
46          if paswd == password :
47
48              while True :
49                  choice2 = input('''
50  WOULD YOU LIKE TO :
51  1)ADD NEW ITEM
52  2)UPDATE PRICE
53  3)DELETE AN ITEM
54  4)DISPLAY ALL ITEMS
55  5)CHANGE THE PASSWORD
56  6)LOG OUT
57
58
59  '''
60  +"Enter your choice(ADMIN-WINDOW) : ")
61                  if choice2 == "1" :
62                      while True :
63                          itemcode = int(input("Enter Itemcode :"))
64                          itemname = input("Enter Itemname : ")
65                          quantity = int(input("Enter Quantity : "))
66                          price = int(input("Enter item price : "))
67                          cur.execute("insert into stock values({},'{}',{},{})".format(itemcode,itemname,quantity,price))
68                          mydb.commit()
69                          print("\n\n---------------ITEM ADDED SUCCESSFULLY---------------\n\n")
70
71                          c = input("\n------------Want to add another item ?(y/n)\t")
72                          if c == "n" :
73                              break
74
75
76                  elif choice2 == "2" :
77                      while True :
78
79                          itemcode2 = int(input("Enter itemcode : "))
80                          itemprice = int(input("Enter new price : "))
81                          cur.execute("update stock set price = {} where icode = {}".format(itemprice,itemcode2))
82                          print("\n--------PRICE SUCCESSFULLY UPDATED-------\n")
83                          mydb.commit()
84                          d = input("\n------------Want to update price of any other item ?(y/n)\t")
85                          if d == "n" :
86                              break
87
88
89                  elif choice2 == "3" :
90                      while True :
91
92                          dltcode = input("Enter itemcode : ")
93                          cur.execute("delete from stock where icode = {}".format(dltcode))
94                          print("------------ITEM SUCCESSFULLY DELETED------------")
95                          e = input("\n------------Want to delete more items ?(y/n)\t")
96                          if e == "n" :
97                              break
98
99
100                 elif choice2 == "4" :
101                         cur.execute("select * from stock")
102                         print("\n\n||icode|iname|quantity|price||")
103                         for i in cur :
104                             print(i)
105                         print("\n\n")
106
107
108                 elif choice2 == "5" :
109                         chk_pass = input("Enter current password : ")
110                         cur.execute("select * from login")
111                         for i in cur :
112                             pswd, = i
113                         if chk_pass == pswd:
114                             new_pass = input("Enter new password : ")
115                             cur.execute("delete from login")
116                             cur.execute("insert into login values('{}')".format(new_pass))
117                             mydb.commit()
118                             print("\n------------PASSWORD SUCCESSFULLY UPDATED------------\n\n")
119                         else :
```

```python
120                     print("\n-------ENTERED PASSWORD IS INCORRECT-------\n")
121                 elif choice2 == "6" :
122                     break
123                 else :
124                     ask = input("\n\n-------DO YOU WANT TO CONTINUE IN ADMIN TAB ?(Y/N)--------\n\n")
125                     if ask == "n" :
126                         break
127
128         else :
129             print("\n\n-------------Access Denied-------------\n\n")
130
131 #****************************************CUSTOMER****************************************************
132
133     elif choice1 == "2" :
134         while True :
135
136             choice3 = input('''
137
138 WOULD YOU LIKE TO :
139
140 1)ADD ITEMS TO BUCKET
141 2)VIEW TOTAL AMOUNT
142 3)VIEW ITEMS IN BUCKET
143 4)GO BACK
144
145 '''
146 +"Enter your choice(CUSTOMER-WINDOW) : ")
147             if choice3 == "1" :
148                 cname = input("Enter customer name : ")
149                 randno = random.randint(100000,999999)
150                 table_name = cname + str(randno)
151                 cur.execute("use saims ")
152                 cur.execute("create table {} (item_code int(10) not null,item_name varchar(25) not null,quantity int(10) not null,amount int(10) not null)".format(table_name))
153                 mydb.commit()
154                 while True :
155                     #printing items to consumer**********
156                     cur.execute("select icode,iname,price from stock")
157                     print("\n\n||item-code|item-name|price||\n")
158                     for i in cur:
159                         cd,nm,prs = i
160                         print("||",cd,"|",nm,"|",prs,"||\n")
161                     #*********************************************
162                     itmcode = input("\nEnter item's code you want : ")
163                     quantity_required = int(input("\nEnter item quantity : "))
164                     #selecting consumer item details*********
165                     cur.execute("select * from stock where icode = {}".format(itmcode))
166                     for i in cur :
167                         ico,inam,quant,pris = i
168                     amount = pris*quantity_required
169                     rmning = quant-quantity_required
170                     amount2 = pris*quant
171                     #*********************************************
172                     if quant == 0 :
173                         print("\n-----------Currently the item isn't available------------\n")
174                     else:
175                         if quant < quantity_required :
176                             print("\n\nWe went out of stock, but we provided you with",quant,inam)
177                             cur.execute("update stock set quantity = quantity - {} where icode = {}".format(quant,itmcode))
178                             cur.execute("insert into {} values({},'{}',{},{})".format(table_name,itmcode,inam,quant,amount2))
179                             mydb.commit()
180
181                         elif quant>=quantity_required :
182                             cur.execute("update stock set quantity = quantity - {} where icode = {}".format(quantity_required,itmcode))
183                             cur.execute("insert into {} values({},'{}',{},{})".format(table_name,itmcode,inam,quantity_required,amount))
184                             mydb.commit()
185
186                     f = input("\n------Do you want to add more items ?(y/n) : ")
187                     if f == "n" :
188                         print("\n\n***************YOUR ASSIGNED BUCKET PASSWORD IS : ",table_name)
189                         break
190
191             elif choice3 == "2" :
192                 tname = input("Enter you assigned bucket password : ")
193                 cur.execute("select sum(amount) from {} ".format(tname))
194                 for i in cur :
195                     final_amount, = i
196                 print("\n\nYOUR PAYABLE AMOUNT IS : ",final_amount)
200             elif choice3 == "3" :
201                 tname = input("Enter your assigned bucket password : ")
202                 cur.execute("select item_name,quantity from {} ".format(tname))
203                 print("\n||ITEM_NAME|QUANTITY||\n")
204                 for i in cur :
205                     i_n,qua = i
206                     print("||",i_n,"|",qua,"||"+"\n\n")
207
208
209             elif choice3 == "4" :
210                 break
211             else :
212                 print("\n\n------------ENTER A VALID CHOICE-------------\n\n")
213 #**********************************************************************************************************
214     elif choice1 == "3" :
215         break
216     else :
217         print("\n\n-------Put a valid choice-------\n\n")
218
219
220
```

DATABASE CREATED IN MYSQL

● : Got created just by running program ● : Got created during testing of program in this project

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| cspf               |
| information_schema |
| krt                |
| mysql              |
| performance_schema |
| sakila             |
| sys                |
| world              |
+--------------------+
8 rows in set (0.02 sec)
```

After running program
for the first time on device

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| cspf               |
| information_schema |
| krt                |
| mysql              |
| performance_schema |
| saims        DATABASE NAMED
| sakila        SAIMS CREATED
| sys                |
| world              |
+--------------------+
9 rows in set (0.07 sec)
```

use saims;

```
mysql> show tables;
+------------------+
| Tables_in_saims  |
+------------------+
| login            |
| purchase         |
| stock            |
+------------------+
3 rows in set (0.00 sec)
```

```
mysql> select*from login
    -> ;
+----------+
| password |
+----------+
| csp2023  |
+----------+
1 row in set (0.01 sec)

mysql>
```

```
mysql> select*from stock;
+-------+-------+----------+-------+
| icode | iname | quantity | price |
+-------+-------+----------+-------+
| 1002  | bread |        0 |    45 |
+-------+-------+----------+-------+
1 row in set (0.00 sec)
```

```
mysql> select * from purchase;
+------------+-------+-------+----------+-----------+--------+
| odate      | icode | iname | quantity | cname     | amount |
+------------+-------+-------+----------+-----------+--------+
| 2023-01-03 | 1002  | bread |        2 | keerat    |     90 |
| 2023-01-03 | 1002  | bread |       18 | amanpreet |    810 |
+------------+-------+-------+----------+-----------+--------+
2 rows in set (0.01 sec)
```

INTERFACE TO USER

```
------------------------------------------------
WELCOME TO SALES AND INVENTORY MANAGEMENT SYSTEM
------------------------------------------------




1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice:
```

```
1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 1
Enter the password : 123

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) :
```

```
1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 2


WOULD YOU LIKE TO :

1)ADD ITEMS TO BUCKET
2)VIEW TOTAL AMOUNT
3)VIEW ITEMS IN BUCKET
4)GO BACK

Enter your choice(CUSTOMER-WINDOW) :
```

```
1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 3
PS C:\Users\keerat\OneDrive\Documents\Sales and Inventory Management System>
```

TESTING THE CODE

TESTING ADMIN :

- **ADDING ITEMS TO STOCK**

```
--------------------------------------------------
WELCOME TO SALES AND INVENTORY MANAGEMENT SYSTEM
--------------------------------------------------


1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 1
Enter the password : 123

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 1
Enter Itemcode :1001
Enter Itemname : kurkure
Enter Quantity : 100
Enter item price : 20


---------------ITEM ADDED SUCCESSFULLY---------------


-------------Want to add another item ?(y/n)     y
Enter Itemcode :1002
Enter Itemname : bread
Enter Quantity : 20
Enter item price : 45


---------------ITEM ADDED SUCCESSFULLY---------------


-------------Want to add another item ?(y/n)     n

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) :
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1001, 'kurkure', 100, 20)
(1002, 'bread', 20, 45)
```

- **UPDATING ITEM PRICE**

```
WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 2
Enter itemcode : 1002
Enter new price : 50

--------PRICE SUCCESSFULLY UPDATED-------


-------------Want to update price of any other item ?(y/n)      n
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1001, 'kurkure', 100, 20)
(1002, 'bread', 20, 50)
```

- **DELETING ITEMS FROM STOCK**

```
WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 3
Enter itemcode : 1001
------------ITEM SUCCESSFULLY DELETED-------------

------------Want to delete more items ?(y/n)    n

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : █
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 20, 45)
```

- **DISPLAYING ALL ITEMS IN STOCK**

```
WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 20, 45)
```

- **CHANGING ADMIN PASSWORD**

```
1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 1
Enter the password : 123

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 5
Enter current password : 123
Enter new password : csp2023

-------------PASSWORD SUCCESSFULLY UPDATED-------------


WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) : 6

1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 1
Enter the password : 123


-------------Access Denied-------------



1)ADMIN
2)CUSTOMER
3)EXIT

Enter your choice: 1
Enter the password : csp2023

WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)CHANGE THE PASSWORD
6)LOG OUT


Enter your choice(ADMIN-WINDOW) :
```

TESTING CUSTOMER :

- **ADDING ITEMS TO BUCKET**

```
1)ADMIN
2)CUSTOMER                          CASE 1
3)EXIT

Enter your choice: 2


WOULD YOU LIKE TO :

1)ADD ITEMS TO BUCKET
2)VIEW TOTAL AMOUNT
3)VIEW ITEMS IN BUCKET
4)GO BACK

Enter your choice(CUSTOMER-WINDOW) : 1
Enter customer name : keerat


||item-code|item-name|price||

|| 1002 | bread | 45 ||


Enter item's code you want : 1002

Enter item quantity : 2

------Do you want to add more items ?(y/n) : n


******************YOUR ASSIGNED BUCKET PASSWORD IS :   keerat439873
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 20, 45)
```

QUANTITY OF
BREAD CHANGED

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 18, 45)
```

```
WOULD YOU LIKE TO :

1)ADD ITEMS TO BUCKET                CASE 2
2)VIEW TOTAL AMOUNT
3)VIEW ITEMS IN BUCKET
4)GO BACK

Enter your choice(CUSTOMER-WINDOW) : 1
Enter customer name : amanpreet

||item-code|item-name|price||

|| 1002 | bread | 45 ||

Enter item's code you want : 1002

Enter item quantity : 30

We went out of stock, but we provided you with 18 bread

------Do you want to add more items ?(y/n) : n

******************YOUR ASSIGNED BUCKET PASSWORD IS :   amanpreet553354
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 18, 45)
```

```
Enter your choice(ADMIN-WINDOW) : 4


||icode|iname|quantity|price||
(1002, 'bread', 0, 45)
```

```
Enter your choice(CUSTOMER-WINDOW) : 1
Enter customer name : rahul
                                    CASE 3

||item-code|item-name|price||

|| 1002 | bread | 45 ||


Enter item's code you want : 1002

Enter item quantity : 3

------------Currently the item isn't available-------------


------Do you want to add more items ?(y/n) : n
```

- **VIEWING TOTAL AMOUNT**

```
WOULD YOU LIKE TO :

1)ADD ITEMS TO BUCKET
2)VIEW TOTAL AMOUNT
3)VIEW ITEMS IN BUCKET
4)GO BACK

Enter your choice(CUSTOMER-WINDOW) : 2
Enter you assigned bucket password : keerat439873


YOUR PAYABLE AMOUNT IS :  90
```

- **VIEWING ITEMS IN BUCKET**

```
Enter your choice(CUSTOMER-WINDOW) : 3
Enter your assigned bucket password : keerat439873

||ITEM_NAME|QUANTITY||

|| bread | 2 ||
```

UPGRADING THE PROGRAM AS REQUIRED BY THE THE USER

USER REQUIREMENT : ADD A OPTION TO SEE WHEN A PURCHASE HAS TAKEN PLACE ALONG WITH THE DETAILS OF ITEM

CODE :

```python
16  #****************************creating prerequisites on mysql*********************************
17  cur = mydb.cursor()
18  cur.execute("create database if not exists saims")
19  cur.execute("use saims")
20  cur.execute("create table if not exists login(password varchar(25) not null)")
21  #ADDED LINE
22  cur.execute("create table if not exists purchase(odate date not null,icode int(10) not null,iname varchar(25) not null,quantity int(10) not null,cname varchar(25) not null,amount int(10) not null) ")
23  #******************
24  cur.execute("create table if not exists stock(icode int(10),iname varchar(25) not null,quantity int(3) not null ,price int(10) not null,primary key(icode))")
25  mydb.commit()
```

```python
50              while True :
51                  choice2 = input('''
52  WOULD YOU LIKE TO :
53  1)ADD NEW ITEM
54  2)UPDATE PRICE
55  3)DELETE AN ITEM
56  4)DISPLAY ALL ITEMS
57  5)DISPLAY ALL PURCHASES       OPTION  ADDED
58  6)CHANGE THE PASSWORD          IN ADMIN MENU
59  7)LOG OUT
60
61
62  ...
63  +"Enter your choice(ADMIN-WINDOW) : ")
```

```python
110              elif choice2 == "5" :
111                  cur.execute("select * from purchase")
112                  print("\n\n||order_date|item_code|item_name|quantity|cname|amount||")
113                  for i in cur:
114                      print(i)
115                  print("\n\n")
```

```python
178              print("\n\nWe went out of stock, but we provided you with",quant,inam)
179              cur.execute("insert into purchase values(now(),{},'{}',{},'{}',{})".format(itmcode,inam,quant,cname,amount2))#ADDED LINE
180              cur.execute("update stock set quantity = quantity - {} where icode = {}".format(quant,itmcode))
181              cur.execute("insert into {} values({},'{}',{},{})".format(table_name,itmcode,inam,quant,amount2))
182              mydb.commit()
183
184          elif quant>=quantity_required :
185              cur.execute("insert into purchase values(now(),{},'{}',{},'{}',{})".format(itmcode,inam,quantity_required,cname,amount))#ADDED LINE
186              cur.execute("update stock set quantity = quantity - {} where icode = {}".format(quantity_required,itmcode))
187              cur.execute("insert into {} values({},'{}',{},{})".format(table_name,itmcode,inam,quantity_required,amount))
188              mydb.commit()
```

RESULT :

```
WOULD YOU LIKE TO :
1)ADD NEW ITEM
2)UPDATE PRICE
3)DELETE AN ITEM
4)DISPLAY ALL ITEMS
5)DISPLAY ALL PURCHASESS
6)CHANGE THE PASSWORD
7)LOG OUT


Enter your choice(ADMIN-WINDOW) : 5


||order_date|item_code|item_name|quantity|cname|amount||
(datetime.date(2023, 1, 3), 1002, 'bread', 2, 'keerat', 90)
(datetime.date(2023, 1, 3), 1002, 'bread', 18, 'amanpreet', 810)
```

BIBILOGRAPHY

For learning python : Sumita arora Class 11 and 12

I have used VScode to write this program

Program's user interface : youtube.com/@ng_allrounder

For Making This Pdf : canva.com

THANK YOU