ATM

```
balance = 18000

while True:
  print('SIET ATM')
  print('1. check balance')
  print('2.deposit ')
  print('3.withdraw ')
  print('4. exit')

  choice = int(input('Enter your choice(1,2,3,4): '))

  if choice == 1:
    print('Your balance is: ', balance)
  elif choice == 2:
    deposit_amount = float(input('Enter amount to deposit_amount: ₹'))
    if deposit_amount > 0:
      balance += deposit_amount
      print('Your new balance is: ', balance)
    else:
      print('Invalid amount')
  elif choice == 3:
    withdraw = float(input('Enter amount to withdraw: ₹ '))
    if withdraw > 0:
      if withdraw <= balance:
        balance -= withdraw
        print('Remaining balance is: ', balance)
      else:
       print('Insufficient balance. please enter valid amount')

  elif choice == 4:
    print('Thank you for using SIET ATM')
    break

  else:
    print('Invalid choice. Please select a vaild choice')
```

```
SIET ATM
1. check balance
2.deposit
3.withdraw
4. exit
Enter your choice(1,2,3,4): 3
Enter amount to withdraw: ₹ 2000
Remaining balance is:  16000.0
SIET ATM
1. check balance
2.deposit
3.withdraw
```

```
4. exit
Enter your choice(1,2,3,4): 4
Thank you for using SIET ATM
```

```
password = '1234'
while True:
  user_password = input('Enter your password: ')
  if user_password == password:
    print('Access granted')
    break
  else:
    print('Access not granted')

balance = 18000

while True:
  print('SIET ATM')
  print('1. check balance')
  print('2.deposit ')
  print('3.withdraw ')
  print('4. exit')

  choice = int(input('Enter your choice(1,2,3,4): '))

  if choice == 1:
    print('Your balance is: ', balance)
  elif choice == 2:
    deposit_amount = float(input('Enter amount to deposit_amount: ₹'))
    if deposit_amount > 0:
      balance += deposit_amount
      print('Your new balance is: ', balance)
    else:
      print('Invalid amount')
  elif choice == 3:
    withdraw = float(input('Enter amount to withdraw: ₹ '))
    if withdraw > 0:
      if withdraw <= balance:
        balance -= withdraw
        print('Remaining balance is: ', balance)
      else:
       print('Insufficient balance. please enter valid amount')

  elif choice == 4:
    print('Thank you for using SIET ATM')
    break

  else:
    print('Invalid choice. Please select a vaild choice')
```

```
Enter your password: 3456
Access not granted
Enter your password: 1234
Access granted
SIET ATM
1. check balance
2.deposit
3.withdraw
4. exit
Enter your choice(1,2,3,4): 4
Thank you for using SIET ATM
```

```
colors = ['red', 'green', 'blue']
for color in colors:
  print(color)
print('Done')
```

```
red
green
blue
Done
```

```
num_list = [1,2,3,4,5,79,23,56]
count =0

for i in num_list:
  count += 1
print(count)
```

```
8
```

```
num_list = [1,2,3,4,5,79,23,56]
sum =0

for i in num_list:
  sum += i
print(sum)
```

```
173
```

```
num_list = [1,2,3,4,5,79,23,56]
max = 0
min = 0
for i in num_list:
  if  i > (max):
    max = i
  if  i < min:
    min = i
print(max)
print(min)
```

```
79
0

num_list = [1,-2,3,4,5,-79,23,56]
max = None
min = None
for i in num_list:
  if max is None or i > max:
    max = i
  if min is None or i < min:
    min = i
print(max)
print(min)

56
-79
```

multiplication table

```
number = int(input('enter a number to get multiplication table:'))
for i in range(1,11):
  print(number, 'x', i, '=', number*i)

enter a number to get multiplication table:5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

factorial

```
n = int(input('enter a number to get factorial:'))
fact = 1
for i in range(1, n+1):
  fact *= i
print(f"factorial of {n} is {fact}")

enter a number to get factorial:5
factorial of 5 is 120
```

Data structures

```
n = [1,2,3,4,5]
print (type(n))
```

```
<class 'list'>
```

```
n.append(6)
print(n)
```

```
[1, 2, 3, 4, 5, 6]
```

```
n.append('teju')
print(n)
```

```
[1, 2, 3, 4, 5, 6, 'teju']
```

```
n.append(0.1)
print(n)
```

```
[1, 2, 3, 4, 5, 6, 'teju', 0.1, 0.1]
```

```
n.insert(2, 'teju')
print(n)
```

```
[1, 2, 'teju', 3, 4, 5, 6, 'teju', 0.1, 0.1]
```

```
len(n)
```

```
10
```

```
n1 = [1,2,3,4,5]
n2 = [6,7,8,9,10]
n1.extend(n2)
print(n1)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
```

```
n_1 = [12,24,6,87]
n_1
print(max(n_1))
```

```
87
```

```
t = (1,2,3,4,5)
print(type(t))
```

```
<class 'tuple'>
```

```
t.count(3)
```

```
1
```

```
t.index(2)
```

```
1
```

```
t.index(5)
```

```
4
```

```
d = {
    'pen':'red',
    'pencil':'blue',
    'book':'black'
}
print(d)
```

```
{'pen': 'red', 'pencil': 'blue', 'book': 'black'}
```

```
d.values()
```

```
dict_values(['red', 'blue', 'black'])
```

```
d.keys()
```

```
dict_keys(['pen', 'pencil', 'book'])
```

```
d. items()
```

```
dict_items([('pen', 'red'), ('pencil', 'blue'), ('book', 'black')])
```

```
d.pop('pen')
```

```
{"type":"string"}
```

contact app

```
contact_book = {}
def add_contact():
  name = input('enter the person name for contact :')
  phone_number = input('enter the phone number for contact(9901xxxxxx)
:')
  contact_book[name] = phone_number
  print(f"{phone_number} is added to contact {name}")
def search_contact():
  name = input('enter the person name for contact :')
  if name in contact_book:
    print(f"the phone number of {name} is {contact_book[name]}")
  else:
    print(f"{name} is not in contact book")
def remove_contact():
  name = input('enter the person name for contact :')
  if name in contact_book:
    contact_book.pop(name)
    print(f"{name} is removed from contact book")
  else:
    print(f"{name} is not in contact book")
```

```
def list_contact():
  if not contact_book:
    print('contact book is empty')
  else:
    print('contact book:')
    for name, phone_number in contact_book.items():
      print(f"{name}: {phone_number}")
  print()

def choice_list():
  print('contact_book')
  print('1. add contact')
  print('2. search contact')
  print('3. remove contact')
  print('4. list contact')
  print('5. exit')

def contact_details():
  while True:
    choice_list()
    choice = int(input('enter your choice(1,2,3,4,5):'))
    if choice == 1:
      add_contact()
    elif choice == 2:
      search_contact()
    elif choice == 3:
      remove_contact()
    elif choice == 4:
      list_contact()
    elif choice == 5:
      print('Thank you for using contact book')
      break
    else:
      print('invalid choice')



contact_details()
```

```
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :tejaswini
enter the phone number for contact(9901xxxxxx) :65322894345
65322894345 is added to contact tejaswini
```

```
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :srusti
enter the phone number for contact(9901xxxxxx) :67354499869
67354499869 is added to contact srusti
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :ranjitha
enter the phone number for contact(9901xxxxxx) :896754324
896754324 is added to contact ranjitha
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :lohitha
enter the phone number for contact(9901xxxxxx) :35646879898
35646879898 is added to contact lohitha
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :sandhana
enter the phone number for contact(9901xxxxxx) :63427698292
63427698292 is added to contact sandhana
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :megha
enter the phone number for contact(9901xxxxxx) :21321324565
```

```
21321324565 is added to contact megha
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :preritha
enter the phone number for contact(9901xxxxxx) :32435465343
32435465343 is added to contact preritha
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :mani
enter the phone number for contact(9901xxxxxx) :78645434278
78645434278 is added to contact mani
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :harsitha
enter the phone number for contact(9901xxxxxx) :09887676563
09887676563 is added to contact harsitha
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :vinay
enter the phone number for contact(9901xxxxxx) :98776453234
98776453234 is added to contact vinay
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):1
enter the person name for contact :pavan
```

```
enter the phone number for contact(9901xxxxxx) :98767654326
98767654326 is added to contact pavan
contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):4
contact book:
tejaswini: 65322894345
srusti: 67354499869
ranjitha: 896754324
lohitha: 35646879898
sandhana: 63427698292
megha: 21321324565
preritha: 32435465343
mani: 78645434278
harsitha: 09887676563
vinay: 98776453234
pavan: 98767654326

contact_book
1. add contact
2. search contact
3. remove contact
4. list contact
5. exit
enter your choice(1,2,3,4,5):5
Thank you for using contact book
```