

```

num = 10
while num <= 50:
    # write prime number code here
    i = 2
    while i < num:
        if num % i == 0:
            break
        i = i + 1
    else:
        print(num,end=' ')
    #####
    num = num + 1

    11 13 17 19 23 29 31 37 41 43 47

```

```

i = 0
while i < 5:
    print(1,end=' ')
    i = i + 1

    1 1 1 1 1

```

```

row = 0
while row < 3:
    ##### write column logic #####
    col = 0
    while col < 5:
        print(1,end=' ')
        col = col + 1
    #####
    print() # new row
    row = row + 1

    1 1 1 1 1
    1 1 1 1 1
    1 1 1 1 1

```

```

rows = 5
cols = 5
row = 0
while row < rows:
    ##### write column logic #####
    col = 0
    while col < cols:
        print(1,end=' ')
        col = col + 1
    #####
    print() # new row
    row = row + 1

    1 1 1 1 1
    1 1 1 1 1
    1 1 1 1 1
    1 1 1 1 1
    1 1 1 1 1

```

```

rows = 5
cols = 5
row = 0
while row < rows:
    #####columns#####
    col = 0
    while col < cols:
        if row==0 or row==4 or col==0 or col==4:

```

```

        print(1,end=' ')
    else:
        print(' ',end=' ')
    col = col + 1
#####
print()
row = row + 1
1 1 1 1 1
1      1
1      1
1      1
1 1 1 1 1

```

```

rows = 5
cols = 5
row = 0
while row < rows:
    col = 0
    while col < cols:
        if row == col:
            print(row,end=' ')
        else:
            print(' ',end=' ')
        col = col + 1
    print()
    row = row + 1

0
  1
    2
      3
        4

```

```

s = 'lokesh'
rows = len(s)
cols = len(s)
row = 0
while row < rows:
    col = 0
    while col < cols:
        if row == col:
            print(s[row],end=' ')
        else:
            print(' ',end=' ')
        col = col + 1
    print()
    row = row + 1

1
  o
    k
      e
        s
          h

```

```

s = 'prabhas'
rows = len(s)
cols = len(s)
row = 0
while row < rows:
    col = 0
    while col < cols:
        if row == col:
            print(s[(len(s)-1-row)],end=' ')
        else:
            print(' ',end=' ')
        col = col + 1
    print()
    row = row + 1

```

```
print()
row = row + 1

s
a
h
b
a
r
p
```

```
num = 987
rev = 0
while num != 0:
    digit = num % 10
    rev = rev * 10 + digit
    num = num // 10
else:
    print('reverse : ',rev)
```

reverse : 789

```
num = 9390018934
backup = num
rev = 0
while num != 0:
    digit = num % 10
    rev = rev * 10 + digit
    num = num // 10
else:
    if backup == rev:
        print(backup,'is palindrome number')
    else:
        print(backup,'is not a palindrome number')
```

9390018934 is not a palindrome number

```
num = 20
while num <= 100:
    rev = 0
    backup = num
    while num != 0:
        digit = num % 10
        rev = rev * 10 + digit
        num = num // 10
    else:
        num = backup
        if num == rev:
            print(num,end= ' ')
    num = num + 1
```

22 33 44 55 66 77 88 99

```
s = 'hyderabad'
for row in range(len(s)):
    for col in range(len(s)):
        if row <= col:
            print(s[col],end= ' ')
        else:
            print(' ',end= ' ')
    print()
```

```
h y d e r a b a d
y d e r a b a d
d e r a b a d
e r a b a d
r a b a d
a b a d
```

```

b a d
a d
d

```

```

s = 'hyderabad'
rows = len(s)
cols = len(s)
row = 0
while row < rows:
    col = 0
    while col < cols:
        if row <= col:
            print(s[col],end=' ')
        else:
            print(' ',end=' ')
        col = col + 1
    print()
    row = row + 1

```

```

h y d e r a b a d
 y d e r a b a d
  d e r a b a d
   e r a b a d
    r a b a d
     a b a d
      b a d
       a d
        d

```

```

s = 'hyderabad'
for row in range(len(s)):
    for col in range(len(s)):
        if row <= col:
            print(s[col - row],end=' ')
        else:
            print(' ',end=' ')
    print()

```

```

h y d e r a b a d
 h y d e r a b a
  h y d e r a b
   h y d e r a
    h y d e r
     h y d e
      h y d
       h y
        h

```

```

s = 'hyderabad'
rows = len(s)
cols = len(s)
row = 0
while row < rows:
    col = 0
    while col < cols:
        if row <= col:
            print(s[col - row],end=' ')
        else:
            print(' ',end=' ')
        col = col + 1
    print()
    row = row + 1

```

```

h y d e r a b a d
 h y d e r a b a
  h y d e r a b
   h y d e r a
    h y d e r
     h y d e
      h y d

```

h y
h

```
'''  
a b c d  
b c d a  
c d a b  
d a b c  
c a d b  
c b a d  
c d b a  
'''
```