In [1]:
```python
# Q1. Write a program to accept percentage from the user and display the grade a

marks = int(input())

if marks > 90:
    print("GRADE: A")
elif marks > 80 and marks <= 90:
    print("GRADE: B")
elif marks >= 60 and marks <= 80:
    print("GRADE: C")
else:
    print("GRADE: D")
```

GRADE: A

In [2]:
```python
# Q2. Write a program to accept the cost price of a bike and display the road ta

cost_price = int(input())

if cost_price > 100000:
    print("ROAD TAX IS: 15%")
elif cost_price > 50000 and cost_price <= 100000:
    print("ROAD TAX IS: 10%")
else:
    print("ROAD TAX IS: 5%")
```

ROAD TAX IS: 10%

In [3]:
```python
# Q3. Accept any city from the user and display monuments of that city.

city = input()

if city == 'Delhi':
    print("Monument of the city: Red Fort")
if city == 'Agra':
    print("Monument of the city: Taj Mahal")
if city == 'Jaipur':
    print("Monument of the city: Jal Mahal")
```

Monument of the city: Red Fort

In [4]:
```python
#4. Check how many times a given number can be divided by 3 before it is less th

num = int(input())
count = 0

while num >= 10:
    num = num / 3
    count += 1
print(count)
```

5

In [5]:
```python
#5. Why and When to Use while Loop in Python give a detailed description with ex
```

```python
"""ANSWER:--
            Python while loop is used to run a block code until a certain condit

The syntax of while loop is:

while condition:
    # body of while loop

In the while loop:

1. A while loop evaluates the condition
2. If the condition evaluates to True, the code inside the while loop is execute
3. condition is evaluated again.
4. This process continues until the condition is False.
5. When condition evaluates to False, the loop stops.

EXAMPLE:-"""

n = int(input())
i=1
while(i < n):
    print(i)
    i += 1
```

```
1
2
3
4
5
6
7
8
9
```

In [11]:
```python
#Q6. Use nested while loop to print 3 different pattern.

n = int(input())
i=1

while(i <= n):
    j=1
    while(j <= i):
        print("*", end = " ")
        j = j+1
    print("")
    i = i+1


print(".....................")

i = n
while i >= 1:
    j = 1
    while j <= n:
        if j >= i:
            print("*", end=" ")
        else:
            print(" ", end=" ")
        j += 1
    print("")
```

```
        i -= 1

print(".....................")

i = 1
while(i <= n):
    j=n
    while(j >= i):
        print("*", end = " ")
        j = j-1
    print("")
    i = i+1
```

```
*
* *
* * *
* * * *
.....................
        *
    * *
  * * *
* * * *
.....................
* * * *
* * *
* *
*
```

In [9]:
```python
#7. Reverse a while loop to display numbers from 10 to 1.
n = 10
while(n >= 1):
    print(n)
    n = n-1
```

```
10
9
8
7
6
5
4
3
2
1
```

In [10]:
```python
#8. Reverse a while loop to display numbers from 10 to 1.
n = 10
while(n >= 1):
    print(n)
    n = n-1
```

```
10
9
8
7
6
5
4
3
2
1
```

In [ ]: