Question1:

Given a string with words separated by spaces, create an acronym by taking the first letter of each word. The output string should be in upper case.

In [1]:
```python
# Example:

Input="State Bank of India"
lst=Input.split(" ")
lst1=[]
for i in lst:
    lst1.append(i[0].upper())
str1="".join(lst1)
print(str1)
```

SBOI

Question 2:

Write a program that prints the sand clock pattern.

```
In [2]:  # Example:

         nr=5 #it represents the length of 1st half of sand like pattern

         for r in range(0,nr):
             print("*",end=" ")
         print()
         for r1 in range(1,nr-1):
             for s in range(r1):
                 print(" ",end="")
             for c in range(1):
                 print("*", end="")
             for s1 in range(1,2*nr-2*r1-2):
                 print(" ",end="")
             for c1 in range(1):
                 print("*", end="")
             print()
         for r2 in range(1,nr-1):
             for s2 in range(r2,nr-1):
                 print(" ",end="")
             for c2 in range(1):
                 print("*", end="")
             for s3 in range(0,2*r2-1):
                 print(" ",end="")
             for c3 in range(1):
                 print("*", end="")
             print()
         for r3 in range(0,nr):
             print("*",end=" ")
```

```
* * * * *
 *       *
  *     *
   * *
   * *
  *     *
 *       *
* * * * *
```

Question 3:

Given a list of integers, group all numbers which end with the same digit and return as a
dictionary. The keys of the dictionary will be the last digit and value of dictionary will be a list of
numbers. If given list is empty return -1.

```
In [3]:  # Example:

         Input = [22,3,22,2,71,11]

         def dict_return(Input):
             dict1={}
             lst_keys=[]
             for i in Input:
                 x=i%10
                 if x not in lst_keys:
                     y=lst_keys.append(x)
             for j in lst_keys:
                 lst=[]
                 for values in range(len(Input)):
                     if Input[values]%10==j:
                         lst.append(Input[values])
                         dict1[j]=lst
                 lst=[]
             return dict1
         print(dict_return(Input))
```

{2: [22, 22, 2], 3: [3], 1: [71, 11]}

Question 4:

Given a list of integers, find the index of the maximum value. If there are two maximums, return index of the first one. If given list is empty return -1. Do not use the index() method.

```
In [4]:  # Example 1:
         Input = []


         lst=[]
         def returnmax():
             if len(Input)==0:
                 return -1
             else:
                 x=np.max(Input)
                 for i in range(len(Input)):
                     if Input[i] ==x:
                         lst.append(i)
                 return lst[0]


         print(returnmax())
```

-1

```python
In [6]:   # Example 2:

          import numpy as np
          Input = [56,67,43,32,1]


          lst=[]
          def returnmax():
              if len(Input)==0:
                  return -1
              else:
                  x=np.max(Input)
                  for i in range(len(Input)):
                      if Input[i] ==x:
                          lst.append(i)
                  return lst[0]


          print(returnmax())

          1
```

```python
In [ ]:
```