Ans-(1)(a)

def pypattern(n):

k = 2\*n – 2

for i in range(0, n):

for j in range(0, k):

print(end=" ")

k = k - 2

for j in range(0, i+1):

print("\* ", end="")

print("\r")

n = 5

pypattern(n)

Ans-(1)(b)

print("The character pattern ")

asciiValue = 65

**for** i in range(0, 5):

**for** j in range(0, i + 1):

        alphabate = chr(asciiValue)

        print(alphabate, end=' ')

        asciiValue += 1

    print()

Ans-(2)

while True:

try:

bg = float(input("Enter your budget : "))

s = bg

except ValueError:

print("PRINT NUMBER AS A AMOUNT")

continue

else:

break

a ={"name":[], "quant":[], "price":[]}

b = list(a.values())

na = b[0]

qu = b[1]

pr = b[2]

while True:

try:

ch = int(input("1.ADD AN ITEM\n2.EXIT\nEnter your choice : "))

except ValueError:

print("\nERROR: Choose only digits from the given option")

continue

else:

if ch == 1 and s>0:

pn = input("Enter product name : ")

q = input("Enter quantity : ")

p = float(input("Enter price of the product : "))

if p>s:

print("\nCAN'T BUy THE PRODUCT")

continue

else:

if pn in na:

ind = na.index(pn)

qu.remove(qu[ind])

pr.remove(pr[ind])

qu.insert(ind, q)

pr.insert(ind, p)

s = bg-sum(pr)

print("\namount left", s)

else:

na.append(pn)

qu.append(q)

pr.append(p)

s = bg-sum(pr)

print("\namount left", s)

elif s<= 0:

print("\nNO BUDGET")

else:

break

print("\nAmount left : Rs.", s)

if s in pr:

print("\nAmount left can buy you a", na[pr.index(s)])

print("\n\n\nGROCERY LIST")

for i in range(len(na)):

print(na[i], qu[i], pr[i])