

```
In [18]: ''' Task 1 '''
def myreduce(n, i):
    try:
        a = n/i
        print("%d = %d / %d" %(a, n ,i) )
    except ZeroDivisionError:
        print("infinity = %d / %d" %(n ,i) )
        print("Error: %d cannot be divided by zero" %n)
    finally:
        print("Exiting the function\n")

myreduce(10,2)
myreduce(10,1)
myreduce(10,0)
```

```
5 = 10 / 2
Exiting the function
```

```
10 = 10 / 1
Exiting the function
```

```
infinity = 10 / 0
Error: 10 cannot be divided by zero
Exiting the function
```

```
In [40]: ''' Task 1
          Prog 2 '''
import numpy as np
row1 = ["American", "Indian"]
row2 = ["play", "watch"]
row3 = ["Baseball", "Cricket"]

for i in row1:
    for j in row2:
        for k in row3:
            print(i, j, k)
```

```
American play Baseball
American play Cricket
American watch Baseball
American watch Cricket
Indian play Baseball
Indian play Cricket
Indian watch Baseball
Indian watch Cricket
```

```
In [70]: ''' Task 2
          Prog 1 '''
import numpy as np
def vander_matrix(b, n):
    a = np.array(b)
    nn = np.column_stack([a**(n-1-i) for i in range(n)])
    print("Vandermonde matrix:")
    print(nn)

a = [1,2,3,4]
vander_matrix(a, 4)
```

```
Vandermonde matrix:
[[ 1  1  1  1]
 [ 8  4  2  1]
 [27  9  3  1]
 [64 16  4  1]]
```