

BASH SCRIPTING

Q1.

Given a positive integer N, print it in english. You need to check if the input is a valid number and get rid of leading zeros from the input.

$0 \leq N \leq 9999,99,99,999$

Example-

Input	Output
0	zero
100	one hundred
978	nine hundred seventy eight
9999,99,99,999	nine thousand nine hundred ninety nine crore ninety nine lakh ninety nine thousand nine hundred ninety nine

Note-

- 1) There should not be any commas in input.
- 2) Please write the output in lower case with only a single space between words
- 3) For invalid input just mention the output - 'invalid input' without quotes

Q2.

Given a directory path as input, print the number of sentences and number of integers (-ve, +ve and zero) for each file. For directories, it should print the sum of these two values for the subtree rooted under this directory. For both directories and files, the output format should be <name>-<# of sentences>-<# of integers>. For example, for a file with name *somefile.txt* with 5 sentences and 4 integers, the output will be *somefile.txt-5-4*

Example:

exercise-1B

```
--dir1
|    |-- dir12
|    |    |-- file1
|    |-- file2
|-- dir2
|    |-- file3
|-- rawtext
```

Content of file1 and file3

hfhfh 9090 lool. is iy coooll.
22.33 is not a valid integer.

Content of file2

100 20 340 90

IIT Kanpur is a great place to live. I will give 100 out of 100 as far as campus living is concerned. enjoy!
Are you enjoying? Please do.
It is a -100 and 0.

Content of rawtext

Number 9090 is cool. Infact very cool!
Is -22 is a valid integer? Yes, it is.

Sample output

```
(F) file1-3-1
  (D) dir12-3-1
    (F) file2-6-8
      (D) dir1-9-9
        (F) file3-3-1
          (D) dir2-3-1
            (F) rawtext-4-2
              (D) exercise-1B-16-12
```

Note that while order of output does not matter, the indentation must correctly separate the entries at different depths.

Sample output (correct)

```
(D) dir1-9-9
  (D) dir12-3-1
    (F) file1-3-1
      (F) file2-6-8
        (D) dir2-3-1
          (F) file3-3-1
            (F) rawtext-4-2
              (D) exercise-1B-16-12
```

Sample output (incorrect)

```
(D) dir1-9-9
  (D) dir12-3-1
    (F) file1-3-1
      (F) file2-6-8
        (D) dir2-3-1
  (F) file3-3-1
    (F) rawtext-4-2
  (D) exercise-1B-16-12
```

Submission format

Your submission should be a single archive (tar, zip etc.) named after your roll no. (<roll_no.zip>) which expands to a folder containing two bash source files (qn1.sh and qn2.sh).