

(use a fixed width font like courier to view this document)

=====
Day 1 Exercises
=====

1) Write program to print 100 to 200 numbers in steps of 7.

Output:

100 107 114 121 128 135 142 149 156 163 170 177 184 191 198

Hint: Use the 'range' or 'xrange' functions and for loop.

2) Kapil just got his examinations marks for all the subjects. In hurry he forget to see his grade for each of the subjects. He also too worried to calculate his grades.

Write a program to take the marks in each subject and print out the grade in that subject.

If the marks are less then 35, grade is F. If the marks are 35 or above and less then 60, the grade is C. If the marks are above 60 and below 80, the grade is B. If the marks are 80 or above, the grade is A. Marks can have upto 2 decimal places. Marks should be rounded to the nearest whole number before a grade is declared.

Your program to accept marks in each subject on a seperate line and print grade in that line.

Example:

Input:

34.72

35

34

45.63

80.23

79.46

Output:

C

C

F

C

A

B

Hint: Use python rounding functions and 'if' and 'elif' to compute grades.

3) 5 friends are out enjoying at a picnic. They are about take a boat ride that only one can take at a time. After an argument on who should go first, they agreed that they take will the boart ride in

alphabetical order of their names.

Write a program to take their names each on one line and print them back in a sorted order.

Example:

Input:
anil
rahim
harita
babu
kapila

Output:
anil
babu
harita
kapila
rahim

Hint: Use list sorting.

4) 5 year old Ramu is distributing sweets on his birthday. He wishes to distribute one sweet to each of his classmates. However, his classmates each want more than one and will trick him. So, Ramu enters into his computer the name of the person as soon as he gives a sweet to that person. Write a program to take a list of names and print how many sweets each person received.

Input will consist of one name on each line. End of input is marked by a blank line or EOF. You should output one line for each name. The line should contain the name followed by a space followed by the number of times the person took the sweet.

Example:

Input:
hari
babu
ramu
babu
babu
ramu

Output (no particular order):
hari: 1
babu: 3
ramu: 2

Hint: Use dictionaries.

5) Anand, Basha, Chandra and David are playing the game of rummy using two decks of cards. However, they start to suspect that Chandra with her supreme math skills is taking advantage of the cards that are not shuffled properly.

Write a program to randomly shuffle cards and distribute 13 cards each to the players.

There are 2 packs. Each pack has four suites: diamods(d), clubs(c), hearts(h) and spades(s). Each suite has 13 cards: ace(a), 2, 3, 4, 5, 6, 7, 8, 9, 10(t), jack(j), queen(q) and king(k). In addition each pack as a face joker(fj).

The output of the program should as follows. On each line, first print the player number followed by a colon then followed by the 13 cards the person has been distributed. Cards are seperated by a space.

Example:

Input:
(nothing)

Output:
1: hj dt s3 d4 h9 s7 s2 s3 h4 h8 dj fj hq
2: s2 s3 h4 h8 dj fj hq hj d2 s3 d4 h9 s7
(similarly for remaining two players)

Hint: Use list shuffling from 'random'. Even better, shuffle the list yourself using other methods from 'random' package.

6) Read through the python tutorial at python.org.

```
=====  
Day 2 Exercises  
=====
```

1) Write a program to open GUI window with title 'Free Software, Free Society'. The window title bar should have a close button. Clicking on the close button should terminate the program.

```
+-----+---+  
| Free Software, Free Society | X |  
+-----+---+  
|           |  
|           |  
|           |  
+-----+  
|           |  
|           |  
|           |  
+-----+  
|           |  
|           |  
|           |  
+-----+
```

2) Write a GUI program that looks as follows:

```
+-----+---+
```

```

| Population Census | X |
+-----+-----+
| _____ |
| Name: | | |
| ----- |
| | |
| +-----+ |
| | Submit | |
| +-----+ |
+-----+-----+

```

When user enters the name and presses submit, show a popup message box with user's name.

```

+-----+-----+
| Your Name | X |
+-----+-----+
| |
| Your name is: Madhu |
| |
+-----+-----+

```

- 3) Redo the above program using Glade user interface designer.
- 4) Read through the python-gobject tutorial learn GUI programming in python.