



Introduction to Computers (IDC101)

Academic Session 2018-19

Lab Session - 04

September 17-21, 2018

You will be required to use `matplotlib.pyplot` and `numpy` in this task. You may like to visit the following

- https://matplotlib.org/users/pyplot_tutorial.html
 - <https://docs.scipy.org/doc/numpy/user/quickstart.html> for quick reference.
-

1. Ask user to input values of m and c and plot the line $y = mx + c$.
2. Plot following curves in one graph using in appropriate range.
 $y = \sin(x)$, $y = \cos(x)$.
3. Let $\pi(n)$ denote the number of primes p such that $p \leq n$. Let us call π the prime counting function. Plot π for $n \leq 10000$. Also, on the same graph plot $n/\log(n)$ against n .
4. The number of batchwise students at an institute is :

Year	Number
2014	153
2015	164
2016	178
2017	173
2018	210

Plot a bar chart to depict this information.

5. Composition of air is as follows: Nitrogen 78.09% , Oxygen 20.95% , Argon 0.93% , Carbon dioxide 0.04% . Plot a pie chart to depict this information.
-