CODESHOWS TUTORIAL-5

Tasks:

- ❏ Make a good Resume (**Important**)
  (for both first year and second year)
  - ❏ Make the resume online (eg. Google drive) and always edit the same document and put that link on all your profiles (eg. LinkedIn), so that whenever you update it, all the changes are reflected
- ❏ Make a LinkedIn Profile and try to update the profile accordingly
  (*Optional for 1st year*)
- ❏ Make an account on Github (and start using it, ofcourse)
- ❏ (Optional) Start working on a personal website
  (A common practice nowadays for developers)
  - ❏ Upload the website in Github (name the repository: <username>.github.io)
  - ❏ You will have a personal site with the url (<username>.github.io)
    (*Therefore, keep a simple username thats makes it easy to recognize you*)
  - ❏ The website will contain the your portfolio, link to resume, project details, links to various other accounts (eg. competitive coding sites)
  - ❏ The website may serve as a project to put in the resume
    (*In case you are struggling with ideas for projects to put in the resume*)

Competitive Coding:

Some basic algorithms for medium level questions in competitive coding

- ❏ Disjoint Set
  https://www.topcoder.com/community/competitive-programming/tutorials/disjoint-set-data-structures/
  https://codeforces.com/blog/entry/57338
- ❏ Linear Recurrences
  fusharblog.com/solving-linear-recurrence-for-programming-contest/
  https://www.topcoder.com/tc?module=Static&d1=features&d2=010408
- ❏ MO's algorithm
  https://www.commonlounge.com/discussion/bcd6416a18cf4e749a4c22f7ccf94ab6
- ❏ Sqrt- Decomposition
  http://acm.math.spbu.ru/~sk1/mm/lections/mipt2016-sqrt/mipt-2016-burunduk1-sqrt.en.pdf
- ❏ Binary Indexed Tree (a.k.a. Fenwick Tree)
  https://www.topcoder.com/community/competitive-programming/tutorials/binary-indexed-trees/
- ❏ Fast I/O
  C++: https://www.geeksforgeeks.org/fast-io-for-competitive-programming/
  Python: https://www.geeksforgeeks.org/python-input-methods-competitive-programming/

Java: https://www.geeksforgeeks.org/fast-io-in-java-in-competitive-programming/

Extras

- ❏ Making a basic Snake Game
  https://www.youtube.com/watch?v=AaGK-fj-BAM&list=PLRqwX-V7Uu6ZiZxtDDRCi6uhfTH4FilpH&index=4&t=0s
- ❏ Why Git?
  https://www.youtube.com/watch?v=w3jLJU7DT5E
- ❏ How to Git?
  https://www.youtube.com/watch?v=euInSXkhE7I
- ❏ Basic Project Ideas (with tutorial):
  https://github.com/tuvtran/project-based-learning