Problem Selecting Guideline

Problem Setter: is responsible for preparing two contests relevant to the subjects of the corresponding week: online and onsite contests. This guideline is for problem setters.

- **Online Contest Details:**

  - This contest should contain about **10** problems.

    - Desired distribution of those 10 problems by difficulties:

      - 2 easy problem

      - 3 medium problems

      - 3 hard problems

      - 2 advanced problems

  - This contest will be active for a week after the lecture day.

- **Onsite Contest Details:**

  - This contest should contain at least **5** problems.

    - Desired distribution of those 5 problems by difficulties:

      - 1 easy problem

      - 2 medium problems

      - 1 hard problems

      - 1 advanced problems

  - Only onsite participants can attend it.

  - After the contest, problem setter will make a short editorial in class.

- **Suggested Steps for Selecting Problems:**

  - First, reach out to editor (document writer), and get to know all necessary details of lecture contents.

- Determine problems' categories and difficulties, and ask for review for them.

- After the reviews are done, now start selecting problems.

  - You can use some popular websites such like hackerrank, codeforces, yet little-known problems are preferred.

  - Please be sure that the problems were not asked before.

  - If you have difficulty to find problems, you can ask reviewer or editor for help.

  - It is better to choose problems which have test cases, otherwise you may have to write a test case generator. If you will prepare your own test cases you should consider:

    - Edge cases(like chain and balanced trees)

    - Limit cases(according the problem constraints, some hard test cases should be added)

    - Checking the test cases with another person's code(you can ask the reviewer or use the same source as you found the problem if it is on the internet) in order to avoid mistakes.

    - Checking the test cases with a brute-force or weak solution in order to check strength of test cases.

- Next, you can send the selected problems to review.

- After the problems are selected, and reviewer confirms them:

  - create a contest which is named "inzva-week-#X-bundle_name-year" in hackerrank

  - do not forget to add beginning and ending time.

  - create problems and add them to the contest.

  - be sure that all test cases are correct.

- Send the contest page to last review, and share it in related discord channel. You can use the contest landing page template.

- **Additional Notes:**

- Problem setter **must** consider the recommendations given by reviewer, and make the necessary arrangements.

- For due dates for problem setter, you should check preparation guideline.