



## **A tool to track student performance on various online judges (coding platforms) and learning platforms**

**Context** (Word limit: 100-150)

*Include all details explaining the track topic as mentioned below:*

- *Why is it needed?*
  - For a student (Mentee) to get placed into FAANG (facebook,amazon,apple,netflix and google) and other product companies it is almost mandated for them to practice coding on online judges like Hackerrank, Hackerearth, Codechef, Codeforces etc. They also need to hone their self-learning abilities by learning on self-learning platforms like salesforce. And as a mentor it is their responsibility to monitor mentees progress on such platforms by continuously monitoring their progress. An automated tool to monitor mentees performance on various coding and learning platforms can be of great help.
- *What is the overall objective of your product?*

The overall objective of the product is to track the students' performance continuously on various online judges and other learning platform to make them not only employable but also to be readily deployable.

**Case** (Word Limit:100-150)

*Explain in detail the case study you are giving to the attendees and make sure to include all the necessary information while keeping in mind the intended audience (i.e students).*

- A dashboard for mentors is to be created to monitor the progress of his mentees on online judges and other learning platforms.
- Mentee himself shall also be able to see his progress as well.
- The dashboard should show the progress in any form such as line graph, pie chart, etc
- The tool should monitor any number of platforms.
- Mentor should be able to see all his mentees progress.
- Mentor should be able to create profile for his mentees using User Ids (handles) of various platform.
- Platforms for various mentees need not be same.
- Provision for mentors to add and remove any number of platforms from mentee profile.

### **Problem Statement** (*Word Limit: 250-300*)

State the problem question clearly which involves the following:

- What is needed to be created (idea/prototype/working model)
  - A working software model is to be created with a focus on dashboard using appropriate data visualization techniques.
  - Should include functionalities as mentioned in above Case Study
  - Focus should be on the following nonfunctional requirements.
    1. Usability (with attractive GUI)
    2. Scalability
    3. Modifiability
  
- Type of industry
  - Education Institute especially where computer engineering programs are offered.
- Details of flowcharts and diagrams if they need to be included  
NA
  
- The platform on which the innovation needs to be hosted or deployed
  - GitHub
- Technological limitations (if any)
  - No
  - The tool should be device independent.

### **Things to be submitted** (*Word Limit: 150-200*)

Mention how the solution should be submitted. It can include one or all of the following:

- A video recording of end-to-end product flow: **Required.**
- A document / presentation. It can contain the following details:
  - Potential users: Mentors and Mentees in the field of education Industry Track.
  - Expected outcomes: A working Model which can be deployed easily in Education Institutes.
  - Potential Impact: Helps Mentors to track the performance of the Mentees/Students from different handles of competitive Programming websites, which would result in placement of students with top software product companies
  - Probable Discipline: Supportive discipline for Mentors and Mentees/Students.
- Code bases (which are hosted on GitHub): Deployment on GitHub.

**Good to have features** (*Word Limit: 50-100*)

- Prompter (notification) on dashboard and/or through **SMS or e-mail** about decrease/increase in performance on various platform by a specified percentage (around 10 to 20)
- Dashboard for heads of the department to monitor all students
- **AI and ML** based to feature to map students' performance to appropriate roles.
- Various reports on overall performance of students at Mentor and head level

**Final Notes** (*Word Limit: 30-50*)

Any special suggestions or recommendations for participants.

Students are advised to refer [www.stopstalk.com](http://www.stopstalk.com) for the kind of product to be developed. It is expected that the tool is developed on similar lines.

Platforms in which profiles of users are in public domain can only be included in mentees profiles.

May have to use **web scraping techniques** and **web crawling** if needed.

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