



PROJECT PROPOSAL
ON
ONLINE PROGRAMMING CONTEST PLATFORM

Submitted By

Araf Al-Jami	1432020033	CSE 37 th Batch
Tahsin Rashad	1432020022	CSE 37 th Batch
Aminul Haque Rasel	1432020009	CSE 37 th Batch
Mohammad Ashraful Haque Chowdhury	1432020030	CSE 37 th Batch

Submitted To

Md. Minhazul Haque Bhuiyan
(Senior Lecturer),
Assistant Proctor & Convener,
CSE Project/Thesis Committee.
Department of Computer Science & Engineering
Leading University, Sylhet

Submission Date: 06/06/2018

05 June 2018

Head of the Department

Department of Computer Science & Engineering

Leading University, Sylhet

Subject: An application for permission to approve the project

Sir,

With due respect, we would like to inform you that we are the following students of CSE department. We want to develop an online programming contest platform for competitive programming as a part of our final year project (Project II). We believe that our project will serve as beneficial for inspiring the young upcoming software engineers of our university. So, we kindly need your permission to start our work as soon as possible.

It will be grateful for us if you are kind enough to permit us & oblige thereby.

Your most obedient,

Araf Al-Jami

CSE 37th batch

Tahsin Rashad

CSE 37th batch

Aminul Haque Rasel

CSE 37th batch

Mohammad Ashraful Haque Chowdhury

CSE 37th batch

Department of Computer Science & Engineering,

Leading University, Sylhet

Title: STAR Online Judge - The Programming Contest Platform

Abstract:

The online judge has several features, to name a few; the user can both participate and host contest. Solve archived problems, search problems by tags or category be it problem type or problem setter. The user can also check their submission status in real-time. Also user can see their progress which is displayed through a graph.

Objectives:

Build an online competitive programming platform, to host contests; that can support concurrent submissions by users. Keep track of user's progress and update submission status in real-time.

Scope:

The online judge can support several concurrent submissions by the participants, the rest will be placed in queue, and judged accordingly.

Functionalities:

- Host programming contests
- Real-time update of submission status
- Keep track of users progress
- Participate in replay and mock contest
- Categorized problems
- Practise problems from archive
- Search for problems through tags and category

Preferred Technology:

- Coding: PHP, Javascript, GoLang, Java
- Sandboxing: Linux
- Development & Testing Environment: Brackets, PHPStorm , XAMPP
- Design and Mockup: Photoshop
- UML Modelling: StarUML
- Hosting: Virtual Private Server(VPS)
- Documentation: L^AT_EX

Conclusion:

Our idea is to develop an Online Judge from scratch. To inspire the upcoming software engineers, who wish to pursue how the software architecture behind an online judge is designed, as well as how it is developed. If we get proper support from the authority then we can update the Application features in future. It will be a challenging task for us to accomplish our goal, but we will strive to achieve our goals.