Project Title : Codifica

Category : Web Application

PURPOSE

The purpose of developing "Codifica" is to provide editorials to the programmers stepping into the world of Competitive Programming and help them improve on their honed skills.

SCOPE

It will integrate the benefits of a Coding Environment with the convenience of getting different approaches for the same problem which can help the programmers in all the possible ways. It provides a means of collaborative learning for them and also creates a new coding community to discuss their doubts and come up with various solutions to it.

INTRODUCTION

Introduction contains the following sub categories :

Existing System

Presently editorials are only released by the official contests' writers and testers. This system involves the following disadvantages :

- It provides limited resources and is less beginner friendly

- Understanding the most efficient approach directly is not easy

- It takes a lot of time to grasp the logic behind the solution

- The existing websites provides editorials for only the contests hosted on their websites

Proposed System

Codifica is the one that aims to give the programmer an experience to a better coding community that could help them in every possible way. It is advantageous for both the learner and the ones who are writing the editorials.

The system after careful analysis has been identified to be presented with the following modules :

- **Editorial Writing Portal** : Coders who have solved the problem can provide their code and its explanation.

- **Editorials** : Coders who were unable to solve the problem during the contest can refer the solutions on Codifica to understand its solution easily.

- **Authentication** : Verifying the writer's credibility using various APIs to see that if they have really solved the problem before writing it.

- **Filtering** : Editorials can be filtered according to specific contests and problems.

ADVANTAGES FOR LEARNERS

Advantages for the programmers are explained below

- **Time Saving** : One place for all kind of help
- **Building connections**
- **Beginner friendly environment**
- To learn **new methods and algorithms**

ADVANTAGES FOR WRITERS

Advantages for the writers are explained below

- **Improvement** : No one is perfect and every solution can be optimized, the writer can improve even after getting an AC verdict on his code.
- **Building connections**

FUNCTIONAL REQUIREMENTS

- Users must have a valid account to access the features of the website
- Users will be able to save their data for future references
- Users will be able to access editorials right after the competition ends
- Users will be able to use a text editor
- Users will be able to write editorials
- Users will be able to analyse other users' code as well

NON FUNCTIONAL REQUIREMENTS

- Secure access of confidential data (user's details)
- Maximum uptime
- Better UX design to get increased efficiency
- Only verified programmers can write editorials
- Proper deployment of the web application