

SHRI G. S. INSTITUTE OF TECHNOLOGY & SCIENCE, INDORE



Project Title : Codifica

Group Members:

Aryaman Mishra(0801CS191016)

Mitul Garg(0801CS191052)

Priyanka Jain(0801CS191064)

Sanidhya Mahajan(0801CS191080)

Yashi Verma(0801CS191104)

SRS

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

USER STORIES

1. As a user I want to see solutions/approach of contests so that I can prepare for further competitions accordingly

Acceptance Criteria :

- The user needs to be logged in for accessing the editorials
- Editorials displayed accordingly

2. As a experienced programmer I want to share my knowledge with other so that everyone can be benefited

Acceptance Criteria :

- The user needs to be logged in to write the editorials
- API calls verify that the user has an AC solution to the problem
- Editorial can be written on the write portal

3. As a user I want a valid account details so that I can login and have access to features of application

Acceptance Criteria :

- The user needs to have a valid email id along with a valid competitive profile
- User can create an account then and can login to access the application

4. As a user I want to save my data so that I can refer it in future

Acceptance Criteria :

- The user needs to be logged in to be able to save data
- The written editorials are displayed on the user's profile page

5. As a moderator I need special account rights to remove/ban content from the website

Acceptance Criteria :

- The user needs to have moderator rights provided by the admin
- Moderator will have access to temporarily remove content from the website if it violates the website's data and content policy

6. As a user I want a text editor in the website itself so that it's easy to edit and save

Acceptance Criteria :

- The user needs to be logged in to access the text editor in the write portal
- Text Editor with full functionality will be accessible once the user is verified of an AC solution to the problem

7. As a user I want to filter problems according to tags

Acceptance Criteria :

- The user needs to have a verified account to access this feature
- Tags will consist of the Contest IDs and all topics related to DSA

8. As a user I want to easily find a specific problem from a specific contest

Acceptance Criteria :

- The user needs to have a verified account to access this feature
- Search Bar to improve User Experience

9. As a user I want to have a user friendly UI to access the features of the website easily

Acceptance Criteria :

- Proper Navigation and User Experience
- Dark Theme Switch

10. As a user I want to be able to access all the famous programming languages while writing code in the code editor

Acceptance Criteria :

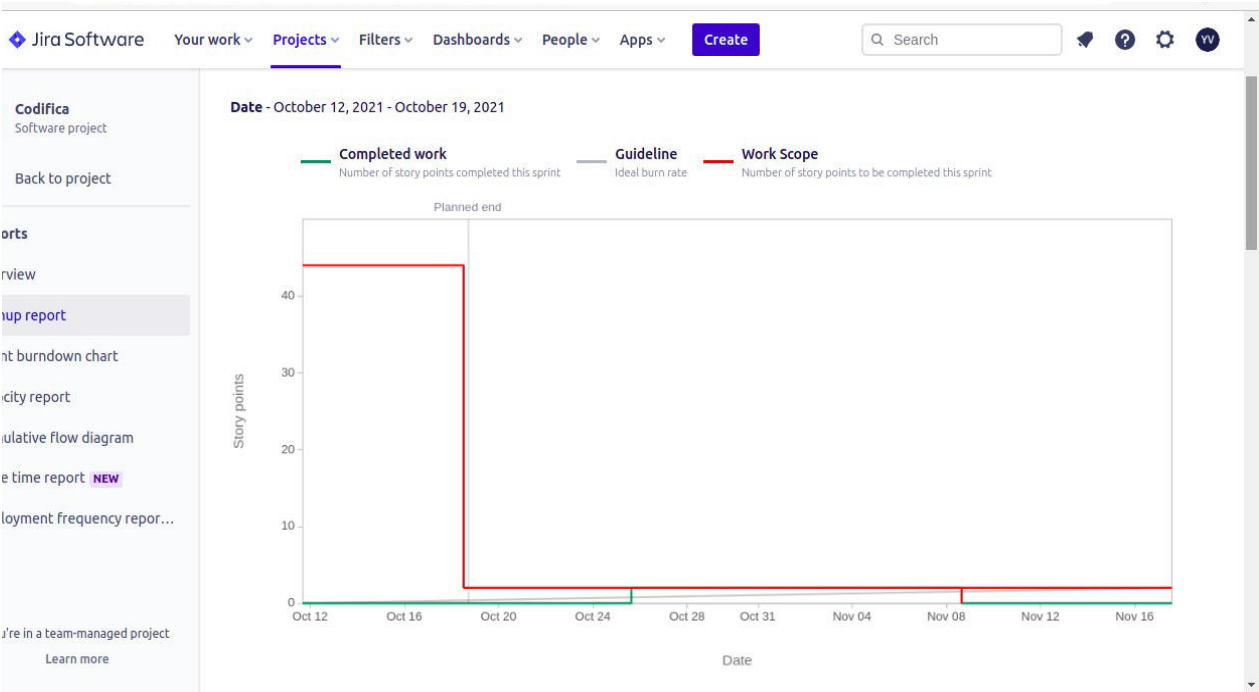
- The user needs to be logged in to access the code editor
- Text Editor should support syntax highlighting for various languages

11. As a user I want to access the editorials in all the famous programming languages

Acceptance Criteria :

- Variety of programmers to write the editorials

Burnup Chart



Burndown



Sprint and Test Cases

Sprint1

▼

COD Sprint 1

12 Oct – 19 Oct (3 issues)

2

0

0

Complete sprint

...

COD-22

As a reader, I want to have a valid account so that I can login and have access to features of the application

LOGIN

1

TO DO ▼

COD-23

As a writer, I want to have a valid account so that I can login and have access to the writing features of the appli...

LOGIN

1

TO DO ▼

COD-37

Checking the login functionality

TO DO ▼

Test Details

Add Step ↓

Columns ▼

-	-	✕ Test Step	✕ Test Data	✕ Test Result	✕ Attachments	Action
⋮	1	Login Page using Navigation UX	Clicking on the Login Link takes to the Login Form	Passed	0 attached +	<div><div></div><div></div></div>
⋮	2	Enter Email and Password	Email : mitulgarg2000@gmail.com Password : mitulgarg	Passed (after validations)	0 attached +	<div><div></div><div></div></div>
⋮	3	Click on the Login Button	Clicking on the Login Button sends request to the server for Login	Passed	0 attached +	<div><div></div><div></div></div>
						<div><div>✓</div><div>✕</div></div>

Sprint 2

▼

COD Sprint 2

Add dates (3 issues)

21

0

0

Start sprint

...

COD-26

As a reader, I want a user friendly UI to access the features of the websit...

FEATURES

8

TO DO ▼

COD-28

As a writer, I want to have a user friendly platform to share my program...

FEATURES

13

TO DO ▼


COD-38

Checking the UI & UX through Navigation


TO DO ▼

-	✖ Test Step	✖ Test Data	✖ Test Result	✖ Attachments
1	Click on Login Link	User must be taken to the Login Form	Passed	0 attached +
2	Click on Editorials Link	User must be taken to the Editorials Page	Passed	0 attached +
3	Click on the Write Editorial Link	User must be able to write the Editorial	Passed	0 attached +
4	Click on the My Editorials Link	User must be shown his written editorials	Passed	0 attached +
5	Click on the Logout button	User must be logged out of the application	Passed	0 attached +

Sprint 3


▼ COD Sprint 3  Add dates (3 issues)


4200Start sprint


 COD-30 As a writer, I want a built in text editor so that its easy to edit and save ...

FEATURES21


TO DO ▼




 COD-31 As a writer, I want a text editor which supports most of the popular ...


FEATURES21









TO DO ▼



 COD-39 Checking Code Editor - Syntax Highlighting & Languages Supported

TO DO ▼



-	✖ Test Step	✖ Test Data	✖ Test Result	✖ Attachments	Action
1	Login	Enter valid credentials in the Login Form	Passed	0 attached +	 
2	Go to Write Page	Redirected to Write Form	Passed	0 attached +	 
3	Write Code in the provided Editor	Syntax Highlighting Support for all Languages	Passed	0 attached +	 
					 

Sprint 4

▼ COD Sprint 4

Add dates

(4 issues)

24

0

0

Start sprint

...

COD-25

As a reader, I want to see solutions/approach of contests so that I can pr...

FEATURES

3

TO DO ▼

COD-27

As a reader, I want to have access to Editorials in all popular languages

FEATURES

8

TO DO ▼

COD-29

As a writer, I want to save my Algorithms and implemented code so that...

FEATURES

13

TO DO ▼

COD-40

Checking that Editorials are displayed properly in all Languages and are saved

TO DO ▼

-	-	✱ Test Step	✱ Test Data	✱ Test Result	✱ Attachments
⋮	1	Login	Enter valid credentials	Passed	0 attached +
⋮	2	Go to My Editorials	Users must be able to see their editorials and to edit and delete them	Passed	0 attached +
⋮	3	Go to Editorials	Users must be able to see editorials added by other users	Passed	0 attached +

Sprint 5

▼ COD Sprint 5

Add dates

(3 issues)

7

0

0

Start sprint

...

COD-24

As a moderator, I want to have a valid account so that I can login with moder...

LOGIN

2

TO DO ▼

COD-32

As a moderator, I want to have special account rights to remove/ban c...

MODERATION

5

TO DO ▼

COD-41

Checking Moderator Rights

TO DO ▼

+ Create issue

Test Details

×

Add Step ↓Columns ▾

-	-	✕ Test Step	✕ Test Data	✕ Test Result	✕ Attachments	Action
⋮	1	Giving Database Access	Able to modify and delete content and accounts	Passed	0 attached +	<div>📄🗑</div>
						<div>✓✕</div>

Implemetation

Link: <https://codifica.netlify.app/>

Welcome to Codifica

Read and Write Unofficial Codeforces Editorials

LOGIN NOW!!



Sign Up



SIGNUP

SWITCH TO LOGIN

Welcome yashi_002

Read and Write Unofficial Codeforces Editorials

WRITE A EDITORIAL!



Write your Editorial here!

ENTER PROBLEM LINK

ENTER EDITORIAL

1

EDITORIALS

Problem Tags : AllSearch Problem Name :

Anton and currency you all know

Contest Id : 508

Greedy Math Strings

Rating : 1300

Language : Java 11

```
1 import java.math.BigInteger;
2 import java.util.*;
3 import java.io.*;
4
5 public class B_Anton_and_currency_you_all_know {
6     public static void main (String[] args) {
7         FastReader scan = new FastReader();
8         String str = scan.nextLine();
9         int n = str.length(), si = -1;
10        int last = str.charAt(n-1) - '0';
11        for (int i=0; i<n-1; i++) {
12            int x = str.charAt(i) - '0';
13            if (x % 2 == 0) {
14                if (x < last) {
15                    si = i;
16                    break;
17                }
18            }
19        }
```


Write your Editorial here!

<https://codeforces.com/contest/318/problem/A>

Editorial by [privanka jain](#)

```
1 import java.util.*;
2 public class even_odd
3 {
4
5     public static void main(String[] args)
6     {
7         Scanner scan=new Scanner(System.in);
8         long n=scan.nextLong();
9         long k=scan.nextLong();
10        long index=0;
11        if(n%2==1)
12        {
13            index=n/2+1;
14        }
15        else
16        {
17            index=n/2;
18        }
19        if(k<=index)
20        {
21            System.out.println(2*k-1);
22        }
23        else
24        {
25            System.out.println(2*(k-index));
26        }
27    }
28 }
```

ADD EDITORIAL

YOUR EDITORIALS

Чет и нечет

Contest Id : 318

Math

Rating : 900

Language : Java 11

```
1 import java.util.*;
2 public class even_odd
3 {
4
5     public static void main(String[] args)
6     {
7         Scanner scan=new Scanner(System.in);
8         Long n=scan.nextLong();
9         Long k=scan.nextLong();
10        Long index=0;
11        if(n%2==1)
12        {
13            index=n/2+1;
14        }
15        else
16        {
17            index=n/2;
18        }
19
20        if(k<=index)
21            System.out.println(2*k-1);
22        else
23            System.out.println(2*(k-index));
24        }
25    }
26 }
```

YOUR EDITORIALS

Чет и нечет

Contest Id : 318

Math

Rating : 900

Language : Java 11

```
1 import java.util.*;
2 public class even_odd
3 {
4
5     public static void main(String[] args)
6     {
7         Scanner scan=new Scanner(System.in);
8         long n=scan.nextLong();
9         long k=scan.nextLong();
10        long index=0;
11        if(n%2==1)
12        {
13            index=n/2+1;
14        }
15        else
16        {
17            index=n/2;
18        }
19        if(k<=index)
20            System.out.println(2*k-1);
21        else
22            System.out.println(2*(k-index));
23    }
24 }
25
26 }
```

Editorial by priyanka jain

EDIT

DELETE

Welcome priyankajainmodi

Read and Write Unofficial Codeforces Editorials

WRITE A EDITORIAL!



Welcome to Codifica

Read and Write Unofficial Codeforces Editorials

LOGIN NOW!!

