



# GAME OF CODES

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AS PROJECT FOR **DATA STRUCTURES** TO:

SUMEDHAY SENIARAY MA'AM



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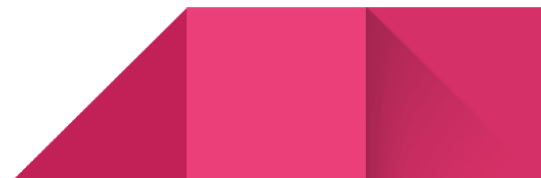
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## Motivation

Codeforces has been a great platform for competitive programming lovers but usually people lose interest in solving those great problems due to fall in their rating, and people get confused about what problems to do in this great ocean. We faced the same problem too and thus found a simple yet elegant solution: Making personalized contests and identifying weak, strong topics.

This way students can easily do contests and thus can practice easily. This was the motivation behind this project.

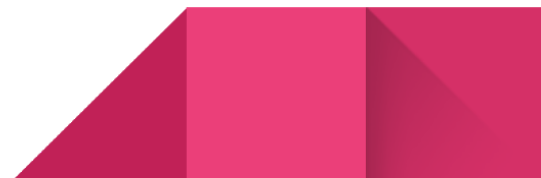


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## OBJECTIVE

Our main objective was to make programming fun and a playful yet competitive environment for coders. Problems faced by competitive programmers were lack of tools for tracking their consistency, identifying their weak and strong topics and practice problems according to their skill levels. Group Coding is also a challenge for them.

Our Objective is to make these features accessible to everyone and they may use it for improving themselves in this field.



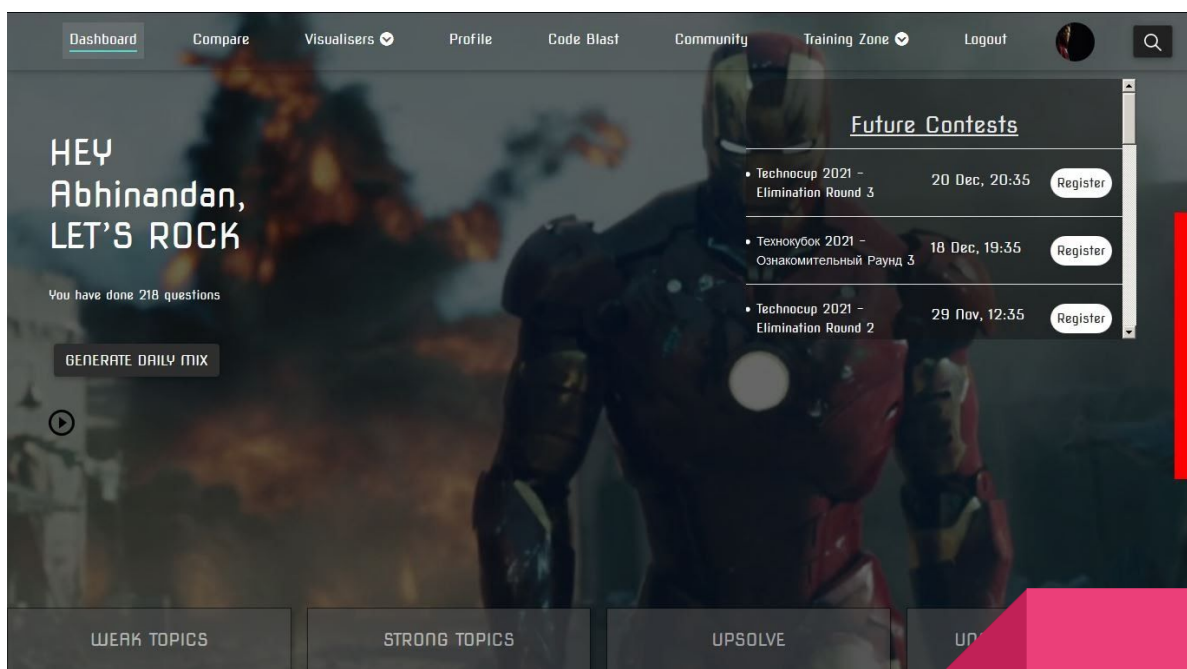
## RESULTS:

[Watch Tour of the Site](#)

## Features

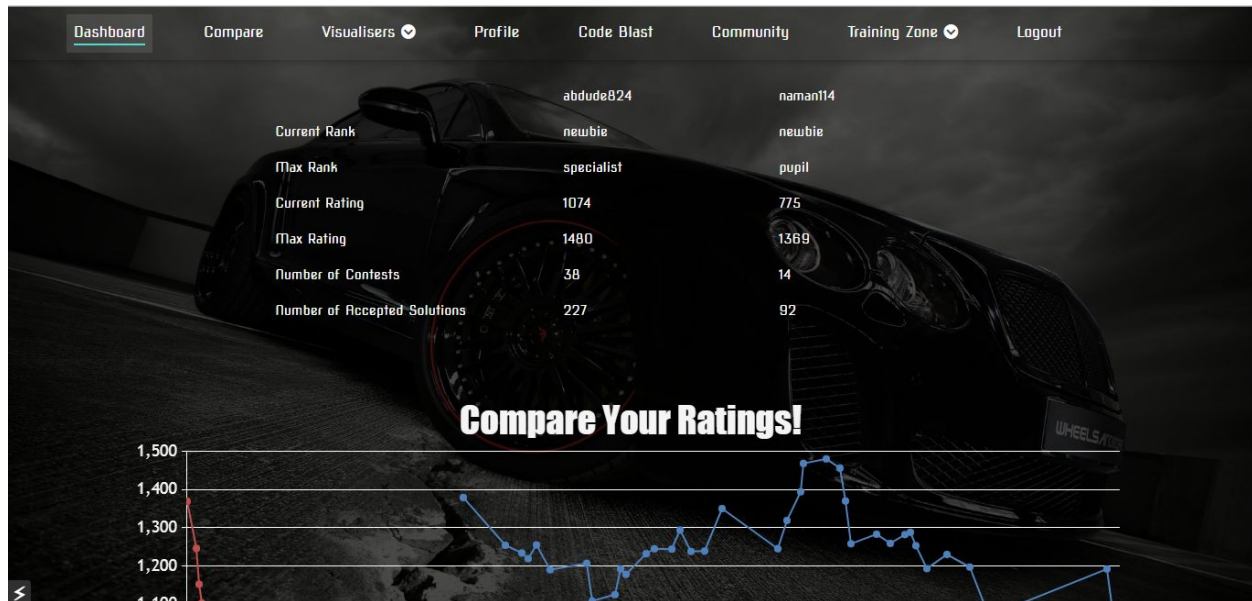
1. **Dashboard** consists of the user info and future contests. Bottom of the dashboard contains boxes having links to weak and strong topics, questions to be upsolved, and unsolved mysteries. Generate daily mix gives you a personalised contest based on your weak and strong topics. We have distributed questions in sets which are basically a set of questions. The difficulty of the questions rises as you unlock higher sets. The red bar on the right is a track of your daily record which is by default 16000. This number basically is the sum of the difficulties of the questions you did on a particular day.

### *Screenshot of Dashboard*



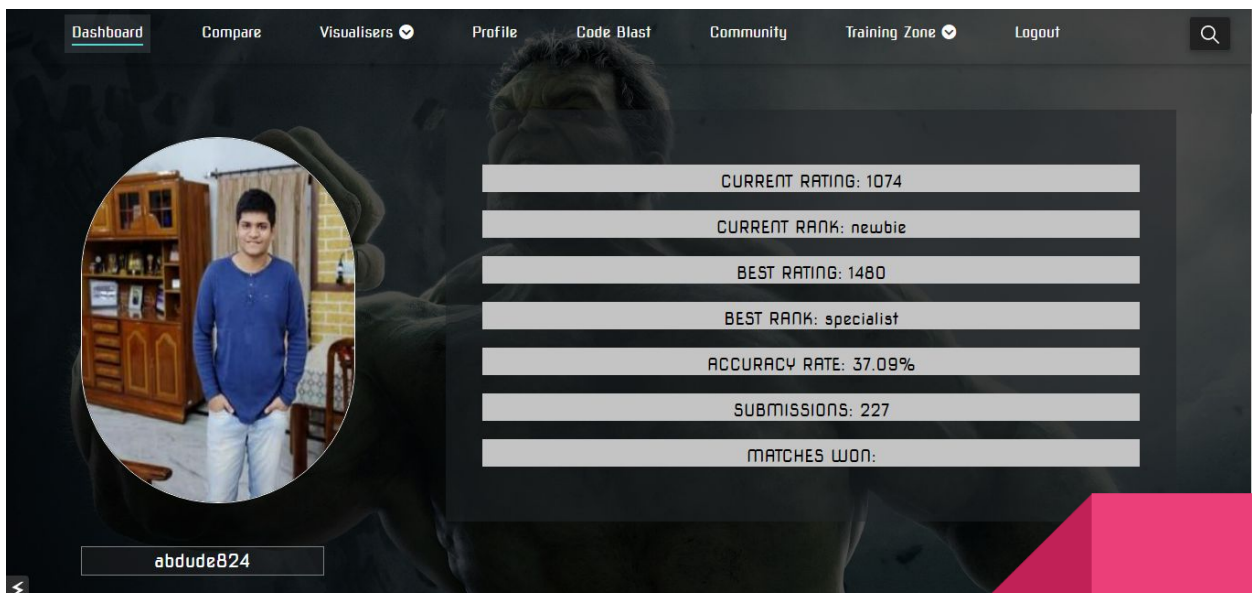
2. You can compare different profiles in the compare tab by just entering the handle name of the user you want to compare with.

### Screenshot of Compare Page



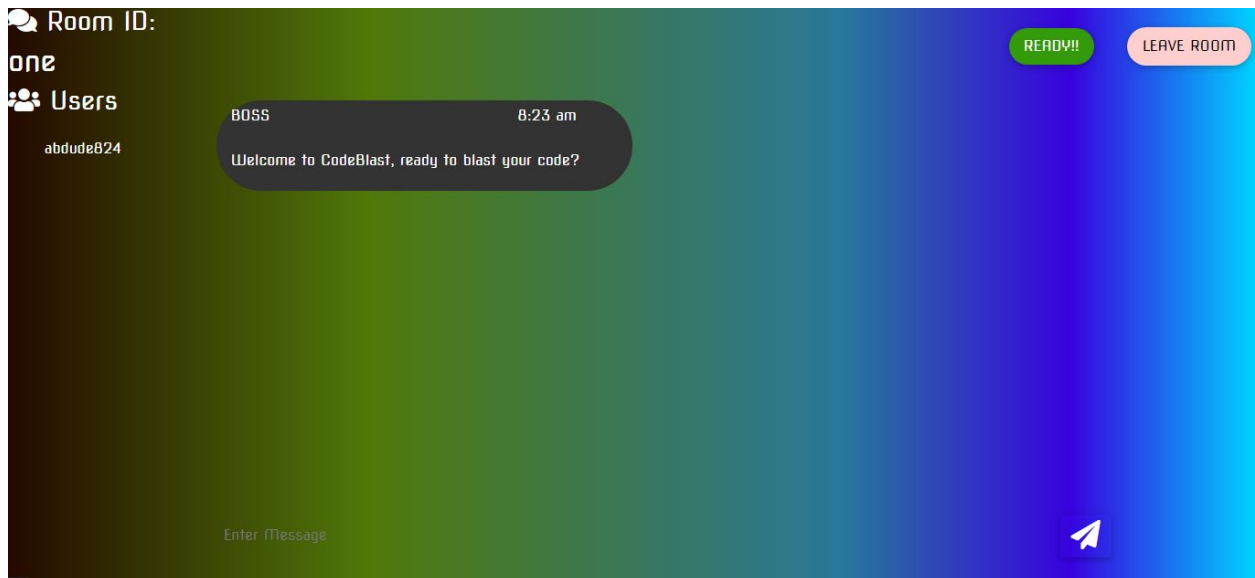
3. Profile gives you your stats and submissions.

### Screenshot of Profile Page



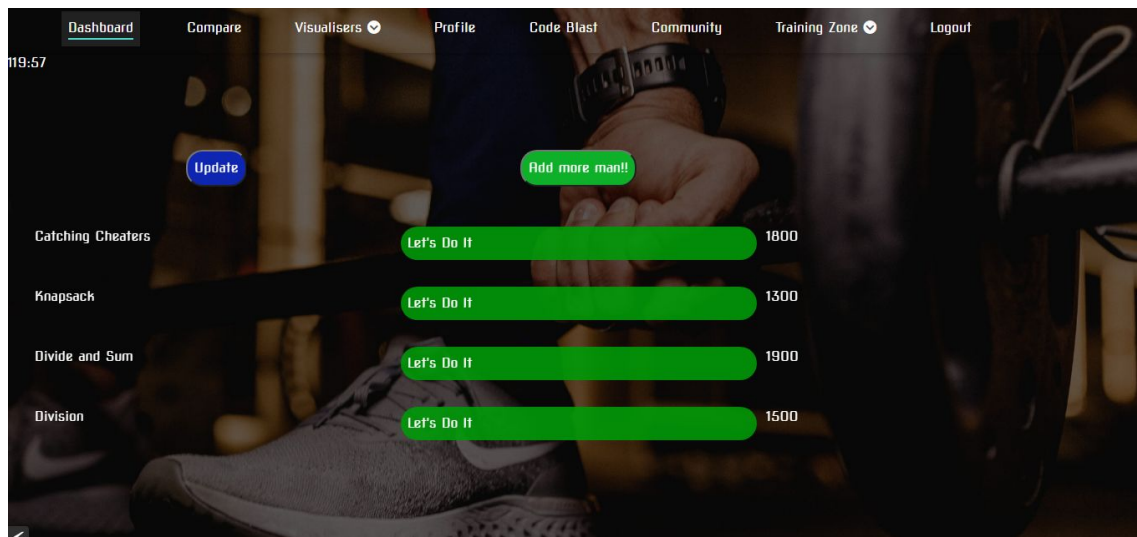
4. CodeBlast is a platform for a team fight(max members are 3). Basically these members will be given some set of 3 questions and they will be ranked according to the number of solved questions.

*Screenshot Of CodeBlast*

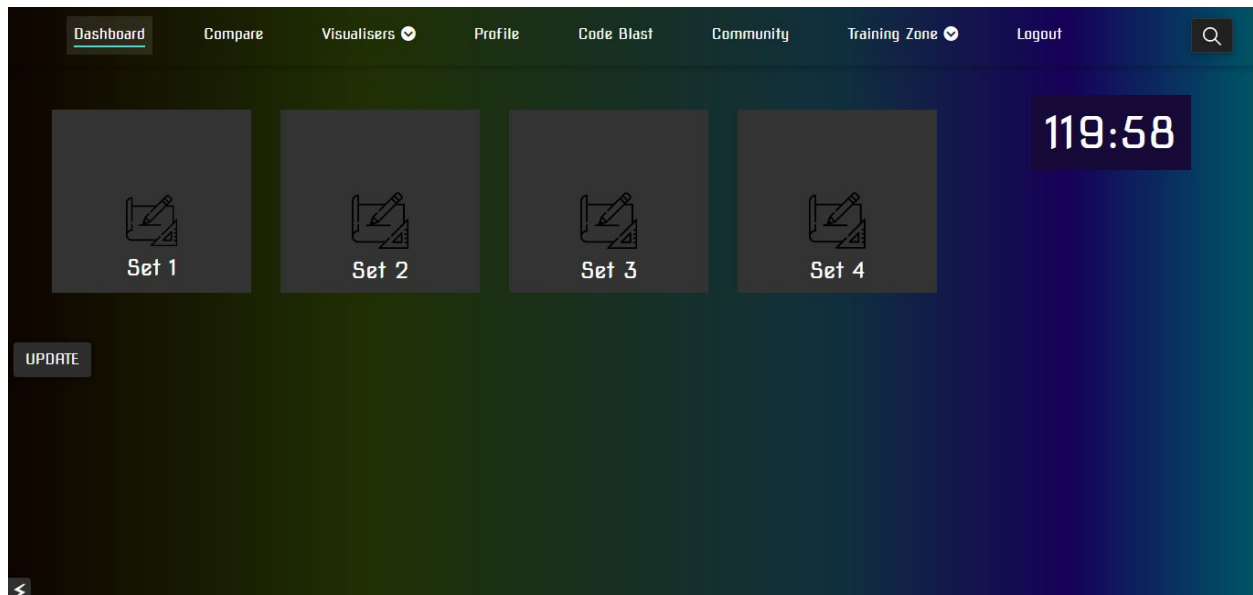


## 5. Training zones:

a. **Level wise:** It will train you on the basis of codeforces rating and give you questions in that particular range and a timer of 2 hours.



b. **Topic wise:** It will train you in a particular topic by giving you sets with progressively higher difficulty.



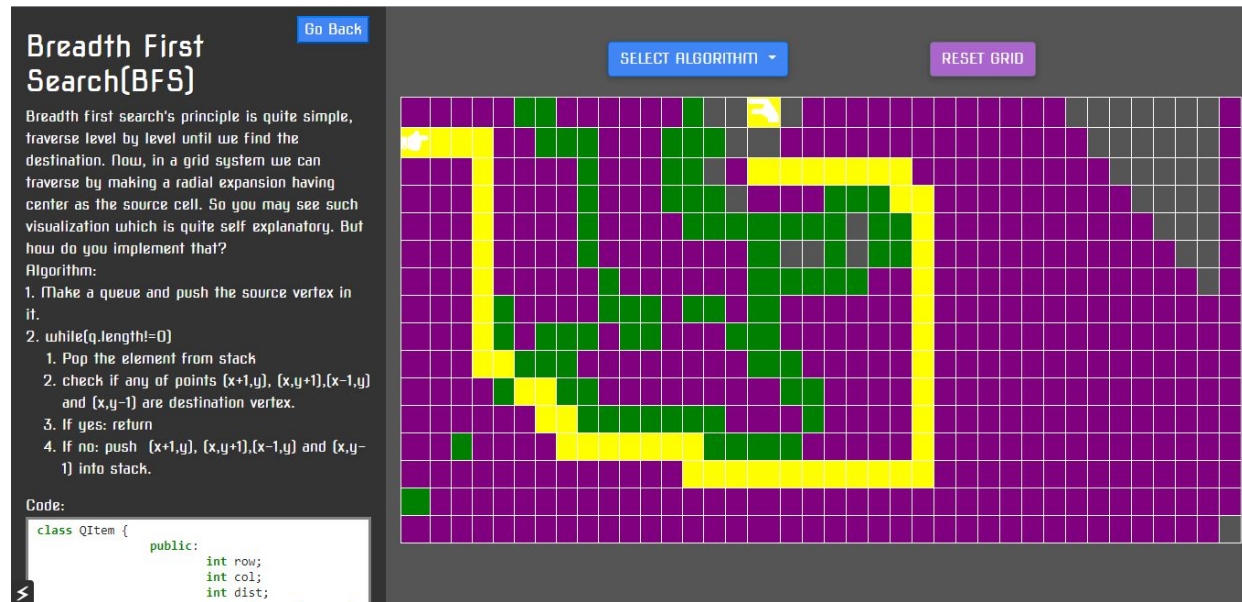
## 6. Visualisers:

- **Sorting Visualizers:** These help users to understand various sorting visualisers which are built to learn and have fun simultaneously.





- **Path Finding Visualizers:** These visualisers give users a deep insight to the various path finding algorithms in a very fun way.



## CONCLUSION

We have made a site which is perhaps quite useful for competitive coders, where they can

- Track their consistency
- Learn Algorithms
- Identify their weak and strong topics
- Practice efficiently from codeforces
- Bookmark important questions
- Train them in various topics.

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## NEXT STEPS

We are heading to add much more features which already are being implemented. These include:

- Roadmap to Competitive Programming: We are making a game for competitive programming lovers which will be a series of blogs and contest in a very very competitive mode.
- Contest Analysis: We are looking forward to add Contest Analysis after each contest through which user can more efficiently look their mistakes.

## REFERENCES

codeforces for providing us with APIs and a great platform for CP lovers, NodeJs, SocketIO, and FireBase (open source softwares we used).

<https://codeforces.com/>

<https://nodejs.org/en/>

<https://socket.io/>

<https://firebase.google.com/>

## CONTRIBUTION

The Contribution was as follows:

**Abhinandan Sharma:** Whole design and implementation of the site, development of the features and error debugging.

**Chetan:** Studying Sorting Algorithms, and applying them to make sorting Visualizer.

