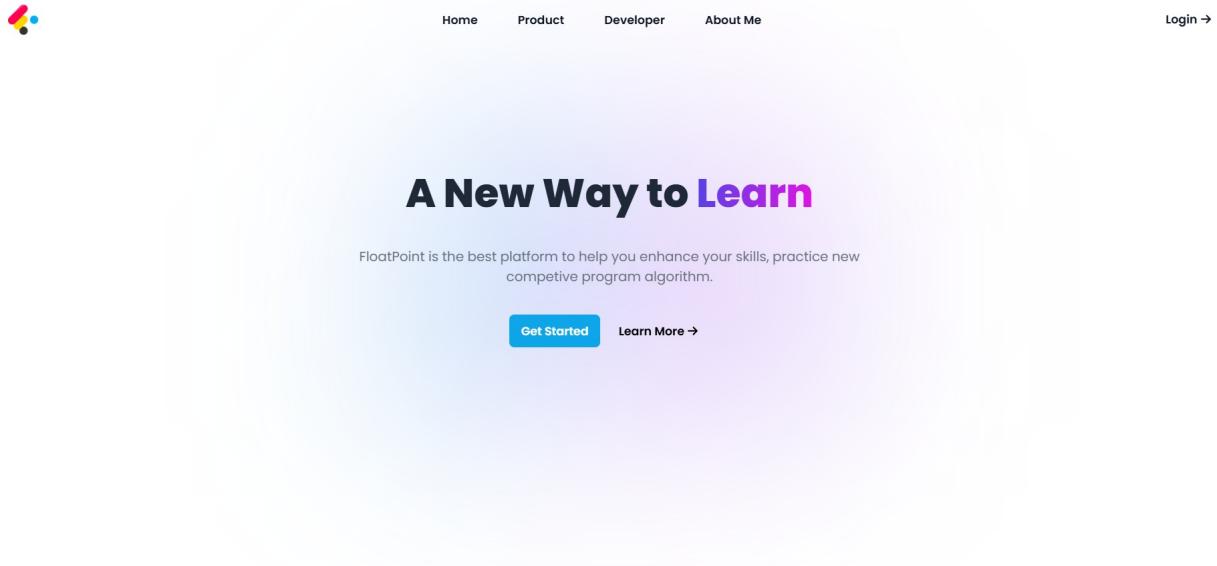


JudgeX - Online Judging System



Overview

JudgeX is a comprehensive online judging system designed to facilitate programming learning and evaluation. Built with the MERN stack (MongoDB, Express, React, Node.js), it provides a complete platform for students and educators.

Key Features

1. Problem Management

- User-friendly interface for solving and submitting coding problems
- Comprehensive problem management system (create, edit, delete)
- Support for various problem types

This screenshot shows a user profile page for a user named "admin". The top navigation bar includes links for Home, Problem, Submission, and Contest, along with a user icon and a notification count of 538. The main content area is divided into several sections:

- User Profile:** Shows a profile picture of a character, the username "admin", and a progress bar indicating "Better than 75% user". Below the progress bar are two icons: a trophy icon with the number "1" and a star icon with the number "538".
- Statistics:** Displays a circular badge with the number "4" and the word "Attempted". Below the badge, it shows "Finished — 3" and "Unfinished — 3".
- Newest Problem:** Lists the "Longest Common Subsequence" problem (difficulty H, 300 points, 0% solved, 128MB memory limit, 1 second time limit). A "try now" button is available.
- Current Contest:** Shows an "Advance Contest" (00:21:59:42) with a trophy icon.
- Your Submissions:** A summary of submission statistics: AC : 60, WA : 27, TLE : 24, MLE : 21, RTE : 24, CE : 24, and IE : 20.

2. Course Management System

- Educational content and video management
- Resource organization and distribution
- Student progress tracking
- Interactive learning paths
- Real-time progress monitoring
- Comprehensive course analytics

Course Features:

- Video lectures with closed captions
- Downloadable resources and materials
- Interactive coding exercises
- Progress tracking and achievements
- Discussion forums for each course

Binary Search Graph Sort String Dp Brute Force Math Greedy Beginner Awfawf Output Io Expand ↴

Difficulty ▼ ⟳ ↻

STATUS	TITLE ▼	DIFFICULTY ▼	TAGS	PRIVATE ▼	POINT ▼	%AC ▼	#AC ▼
	Seem senior next	Hard	Binary Search +2		100p	248%	421
	dijkstra	Medium	Graphs Dfs Bfs +1		100p	0%	0
🕒	Hello World	Easy	Beginner Output		100p	21%	4
	Echo Input	Easy	Beginner Io		100p	13%	2
	New rich mission Republ...	Easy	Binary Search Dp +1	🔒	100p	7%	34
	Fill modern	Easy	String Graph +1	🔒	100p	96%	432
	Culture care task	Easy	Binary Search	🔒	100p	63%	84
	Political human	Hard	Graph Sort +1	🔒	150p	220%	402

FloatPoint
Home / Problem Problem
Hey, Admin Admin

Dashboard
Problem
+ Create New

Submission
Contest
User

Logout

FloatPoint
Home / Submission Submission
Hey, Admin Admin

Dashboard
Problem
Submission

Contest
User

Logout

Id	Name	Private	Tags	Difficulty	Point	#AC	%AC
#256789	Seem senior next	🔓	Binary Search Greedy Brute Force	Hard	100p	421	248%
#4	dijkstra	🔓	Graphs Dfs Bfs Findpath	Medium	100p	0	0%
#HELLO	Hello World	🔓	Beginner Output	Easy	100p	4	21%
#IO	Echo Input	🔓	Beginner Io	Easy	100p	2	13%
#PROB1001	New rich mission Republican	🔒	Binary Search Dp Graph	Easy	100p	34	7%
#PROB1002	Fill modern	🔒	String Graph Binary Search	Easy	100p	432	96%
#PROB1003	Culture care task	🔒	Binary Search	Easy	100p	84	63%
#PROB1004	Political human	🔒	Graph Sort Brute Force	Hard	150p	402	220%

When	Id	Status	Problem	Time(S)	Memory(MB)	Language	Point	Author
01-07 03:19:44	683be5...	MLE	IO	420	122214	C++17	0	user073
30-06 00:59:35	683be5...	IE	IO	150	6541	Python2	0	user093
28-06 21:36:06	683be5...	CE	IO	99	1277	C++11	0	user066
28-06 19:57:25	683be5...	RTE	IO	41	3234	Python3	0	user049
26-06 06:04:14	683be5...	WA	IO	189	6900	C++11	11	user048
26-06 01:49:13	683be5...	AC	HELLO	9	3523	C	82	user016
25-06 03:47:02	683be5...	CE	IO	91	1619	Python3	0	user037

Status

AC	Accepted 147
TLE	Time Limit Exceeded 69
MLE	Memory Limit Exceeded 48
RTE	Runtime Error 57
CE	Compilation Error 61
WA	Wrong Answer 60
IE	Internal Error 48

Language

C
Python3
C++11
Java
JavaScript

The screenshot shows the FloatPoint Contest Management interface. On the left sidebar, there are links for Dashboard, Problem, Submission, Contest (which is selected and highlighted in pink), and User. The main area displays four contest cards:

- Advance Contest** (ONGOING): Left: 21h 19m 45s, 1 Participant, 0 Problems, 24h Duration. Buttons: View (black), Edit (blue), Delete (red).
- Weekly Contest** (UPCOMING): Start: 02-06-2025 09:55, 0 Participants, 0 Problems, 48h Duration. Buttons: View (black), Edit (blue), Delete (red).
- Beginner Contest** (ENDED): End: 31-05-2025 20:27, 0 Participants, 0 Problems, 0 Duration.
- BitWeekly Contest** (ONGOING): Left: 669h 00m 45s, 0 Participants, 0 Problems, 0 Duration.

At the bottom left is a Logout link, and at the top right is a user profile for 'Hey, Admin Admin' with a dark mode switch.

3. Contest Management

- Automated programming contest organization
- Contest scheduling and time management
- Contests ranking and results display

The screenshot shows the submission history page. At the top, there are navigation links: Home, Problem, Submission (selected and highlighted in grey), and Contest. To the right is a user icon and a notification badge for 538 new items.

Mine	Status	Language	Search by problem							Refresh	Status
WHEN	ID		STATUS	PROBLEM	TIME	MEMORY	LANGUAGE	POINT	AUTHOR	Pie Chart	
31-05-2025 19:24:45	682ac8b8c5988b3856d41e91	view	CE	io	1435s	162298MB	c	55p	admin	Total: 401	
31-05-2025 19:17:55	682ac7d9c5988b3856d41e3b	view	RTE	helloworld	1833s	229999MB	c++14	15p	admin		
31-05-2025 18:50:28	682ac8b8c5988b3856d41ec0	view	AC	io	1146s	99503MB	python3	3p	nourist		
31-05-2025 17:52:36	682ac7d9c5988b3856d41e6c	view	RTE	helloworld	1432s	209112MB	c++11	80p	nourist		
31-05-2025 16:51:31	682ac7d9c5988b3856d41e30	view	AC	helloworld	645s	72580MB	c++20	0p	nourist		
31-05-2025 10:19:21	682ac7d9c5988b3856d41e6f	view	TLE	io	1710s	218423MB	c++17	75p	nourist		
31-05-2025 08:18:03	682ac7d9c5988b3856d41e74	view	CE	io	1117s	189981MB	c++14	30p	nourist		

On the right side, there are two pie charts: one for 'Status' (Total: 401) and one for 'Language' (Total: 401). The status chart has six segments in green, red, blue, yellow, purple, and orange. The language chart has six segments in green, blue, yellow, orange, purple, and red.

4. AI Code Evaluation Feature (New) *

We've integrated an intelligent system for analyzing and evaluating the quality of submitted code. This system provides:

Smart Evaluation Features:

- Code quality and structure analysis
- Performance and efficiency improvement suggestions
- Programming best practices identification
- Potential issues and security vulnerabilities detection

The screenshot shows a user interface for managing contests. At the top, there are navigation links: Home, Problem, Submission, and Contest (which is highlighted). On the right, there's a user icon, a notification count of 538, and a refresh button. Below this is a search bar with a keyword input and a search icon. The main area is titled "All Contests" and lists four entries:

- Advance Contest**: Joined (1 day ago)
- BitWeekly Contest**: Ongoing (28 days)
- Weekly Contest**: Upcoming (2 days)
- Beginner Contest**: Ended (1 day ago)

At the bottom left, there are navigation arrows for "Page 1 of 1".

Guidelines and Recommendations:

Best Practices:

- Use clear and descriptive variable names
- Organize code into logical units
- Add appropriate documentation
- Follow clean code principles

What to Avoid:

- Unnecessary code duplication
- Excessive use of global variables
- Unhandled potential errors
- Complex and unreadable code

Technical Architecture

- **Frontend:** React with TypeScript, Tailwind CSS
- **Admin Dashboard:** React with TypeScript and TanStack Query
- **Backend:** Node.js, Express.js with TypeScript
- **Databases:**
 - MongoDB (Main Database)
 - Redis (Caching & Session Management)
- **Judging System:** Node.js with Docker

Status

WHEN	ID	STATUS	PROBLEM	TIME	MEMORY	LANGUAGE	POINT	AUTHOR
31-05-2025 19:24:45	682ac8b8c5988b3856d41e91	CE	io	1435s	162298MB	c	55p	admin
31-05-2025 19:17:55	682ac7d9c5988b3856d41e3b	RTE	helloworld	1833s	229999MB	c++14	15p	admin
31-05-2025 18:50:28	682ac8b8c5988b3856d41ec0	AC	io	1146s	99503MB	python3	3p	nourist
31-05-2025 17:52:36	682ac7d9c5988b3856d41e6c	RTE	helloworld	1432s	209112MB	c++11	80p	nourist
31-05-2025 15:51:31	682ac7d9c5988b3856d41e30	AC	helloworld	645s	72580MB	c++20	0p	nourist
31-05-2025 10:19:21	682ac7d9c5988b3856d41e6f	TLE	io	1710s	218423MB	c++17	75p	nourist
31-05-2025 08:18:03	682ac7d9c5988b3856d41e74	CE	io	1117s	189981MB	c++14	30p	nourist

Language

Total: 401

FloatPoint

Dashboard

Today's Submissions: 2 -75% | Today's Accepted: 1 -50% | Today's Problems: 2 +0% | New Users: +1 +100%

Weekly Accepted
than last week -24%

Weekly Submissions +13%

Monthly Submissions

Monthly Languages

Newest Activities: +2
User user083 successfully solved problem #IO

Logout

System Requirements

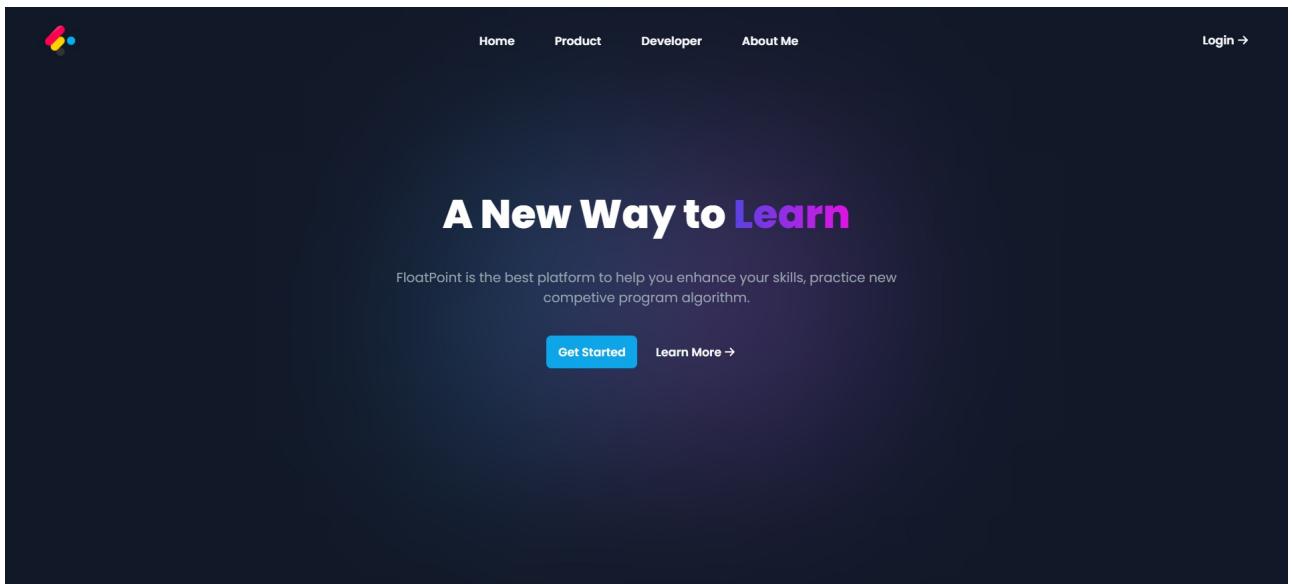
- Node.js (v18 or higher)
- npm or yarn
- Docker (optional)
- Docker Compose (optional)
- Redis Server
- TypeScript 5.0+

Development Tools

- VS Code with recommended extensions
- TypeScript and JavaScript linting tools
- Redis CLI for cache management
- MongoDB Compass for database management

Security and Privacy

- Multi-level authentication and authorization system
- Data protection and user privacy
- Encryption of sensitive information



Admin Features

The administrative interface provides powerful tools for managing the platform:

- Problem creation and management
- User administration
- Contest organization
- Course content management
- System monitoring and analytics

Student Features

Students can access a range of features:

- Solve programming problems
- Participate in contests
- Access course materials
- Track their progress
- Receive AI-powered code feedback

The screenshot shows the JudgeX homepage with a dark theme. At the top, there are navigation links: Home, Problem, Submission, and Contest. On the right, there's a user icon, a star rating of 538, and a profile picture. The main area is divided into several sections:

- User Profile:** Shows a circular profile picture of a character, the username "admin", and a progress bar indicating "Better than 75% user". Below it are two boxes: one with a trophy icon and the number 1, and another with a star icon and the number 538.
- Statistics:** A large circle showing "4 Attempted". Below it, a legend indicates "Finished — 3" (green) and "Unfinished — 3" (red).
- Newest Problem:** A card for "Longest Common Subsequence" with a difficulty level of H. It shows statistics: 300 submissions, 0% accepted, 128MB memory limit, and 1 second time limit. A "try now" button is available.
- Current Contest:** An "Advance Contest" starting at 00:22:00:03. It features a trophy icon and a timer.
- Your Submissions:** A summary of submission statistics: AC: 60, WA: 27, TLE: 24, MLE: 21, RTE: 24, CE: 24, and IE: 20.

Future Development

We plan to add more features such as:

- Support for additional programming languages
- Enhanced AI evaluation system
- Collaborative features for users
- UI/UX improvements

Conclusion

JudgeX is an integrated platform that combines education and programming evaluation, focusing on delivering an outstanding learning experience supported by AI technologies to improve code quality and develop programming skills.

The screenshot shows the JudgeX problem listing page with a dark theme. At the top, there are navigation links: Home, Problem, Submission, and Contest. On the right, there's a user icon, a star rating of 538, and a profile picture. The main area is a table of problems:

STATUS	TITLE	DIFFICULTY	TAGS	PRIVATE	POINT	%AC	#AC
Seem senior next	Hard	Binary Search +2			100p	248%	421
dijkstra	Medium	Graphs Dfs Bfs +1			100p	0%	0
Hello World	Easy	Beginner Output			100p	21%	4
Echo Input	Easy	Beginner Io			100p	13%	2
New rich mission Republ...	Easy	Binary Search Dp +1	🔒		100p	7%	34
Fill modern	Easy	String Graph +1	🔒		100p	96%	432
Culture care task	Easy	Binary Search	🔒		100p	63%	84
Political human	Hard	Graph Sort +1	🔒		150p	220%	402

At the top of the table, there are filters: Difficulty (set to Hard), a search bar ("Search questions"), and buttons for refresh and export.