

# A SURVEY ON FUNCTIONING OF INTERVIEW PLATFORMS

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## 1.ABSTRACT

*In past few years, online platforms have emerged out of nowhere in the lives of people and one of these platforms are hiring software which are used by recruiters for interviewing process. Nowadays many companies use coding platform to evaluate student based on there coding skills, there abilities to solve different coding problems, and there to understand the algorithms and concepts associated with programs. Though for conducting coding competitions and interview is a big challenging task, especially for the companies who do mass hiring. To solve this problem a better coding plat-form need to be introduced which will also provide audio-video conferencing and coding challenges also. Coding Platform may help during this condition.*

## 1. INTRODUCTION

First things first, what is Coding Platform? To understand it in a better view lets consider an example A which is the hiring manager and candidate B which is the student. A is the hiring manager of the company xyz and he wants to hire some freshers for his company. He will first conduct few rounds. It may be aptitude and GD round or any other round depending on the company's policies. The most common round in any hiring process in tech companies are interview round and coding round. As many student got eliminated in aptitude and GD round and candidate B got selected for further rounds, the next round will be interview round in which the hiring manager team will create a link in which A and B both will join the meeting and A will ask technical question to student B according to the requirement of the company policies, if he or she wants to judge the student based on the coding then an online compiler option will be present and student B can write the code online and hiring manager can evaluate him based on his performance.

## 2. LITERATURE SURVEY

We conducted a review of current systems from the book by the Docker book by James and discovered that they are highly recognised for their diversity of questions organised into multiple categories, a scalable judging system, and a strong user interface, as well as discussion boards on each issue. It is a sophisticated software platform that offers an interactive, thorough debugging experience. Several of these systems offer support for additional languages than only C, C++, Java, and Python. Modern systems like WorkAt Tech, Interview Bit, Code Wars, and Hacker Rank are among them.[1]

The necessity to exceed the typical interview technique:- i)Traditional interviews are opaque [2], somewhat hypothetical, and unprepared for real-world situations. A candidate's level of job competency is not updated in this way for the interviewer. Whiteboard coding interviews, for instance, do not reflect the requirements of the position

since they lack the tools necessary for actual coding. By causing individuals to become frightened or tense, such coding tools even eliminate the finest coders.

ii) There are no recruiting decisions [1] supported by statistics that result in better employment results. Most recruiters forget to provide important criteria for selection and references. Instead, they favour candidates who are simple to choose based on presumptions or intuition. As a result, businesses are unable to find and select the top applicant for the position.

iii) The recruiting process requires a lot of resources, both financially and otherwise, due to expenditures associated with on-site interviews and other extra charges. The process begins with posting jobs on job sites, analysing applications [1], setting up interviews in advance, conducting onsite interviews, and concluding with extending offers, settling on a price, and checking references.

During the pandemic duration, academic organizations had been challenged with many troubles with how to gain their purpose by persevering with online teaching. In some fields, it used to be challenging to habits tremendous instructing and gaining knowledge [2], and one of these disciplines used to be laptop programming teaching. In the subject of programming, the use of online compilers used to be viewed as a necessary challenge. The use of online compilers was once viewed by some college students as an answer (especially at some point of pandemic lockdown) when they no longer have a pc to set up an IDE however used a tablet/smartphone without a doubt related to the Internet, or they situated tough to install/configure distinct compilers. The purpose of this paper is to find out about and discover online compilers by making an assessment between them. A pattern of 10 online compilers that have been completely or partly open-source was once selected. The contrast of compilers used to be executed in two aspects, the first in the offerings they furnish and the 2D [3] in their overall performance in executing programs. Finally, a rating of the three exceptional compilers is given based totally on comparisons of the two aspects [2]

A hands-on instructional platform for compiler development called FreeCompilerCamp.org [3] enables learners to go through practical exercises in a Linux environment that is seamlessly integrated into their web browser. Both new and seasoned compiler developers can benefit from the practical and efficient training environment it offers. Test Driven Development [4] is an important part of the business that, if instilled in a student at an early level, would benefit both the student and the industry.

The biggest difficulty in developing on current online programming platforms is meeting the required restrictions by addressing multiple test cases. Typically, test cases [5] are used to automate code evaluation. The test cases are mainly classified as formal test cases [5] and informal test cases [5].

### 3. FUNCTIONING

#### What is a platform for coding interviews?

An automated system for assessing candidates coding abilities [6] is called a coding interview platform. It is an extensive software platform [6] that offers a thorough, interactive development environment [6] to assist recruiters in selecting the finest personnel. By offering a comprehensive examination of candidate technical abilities and knowledge for each role/position under consideration, the coding interview platform removes the guesswork from a time-consuming screening procedure. It achieves this by evaluating the test-familiarity taker's with the frameworks [6], tools, libraries, and practical expertise with any specific technology required for doing the task successfully.

#### How the platform works??

For Recruiters :-



Fig -1, Flow for the recruiter

For Student :-



Fig -2, Flow for the Student

### 3.1 How the programming structure Works?



Fig -3, Programming Flow

### 3.2 Demo website

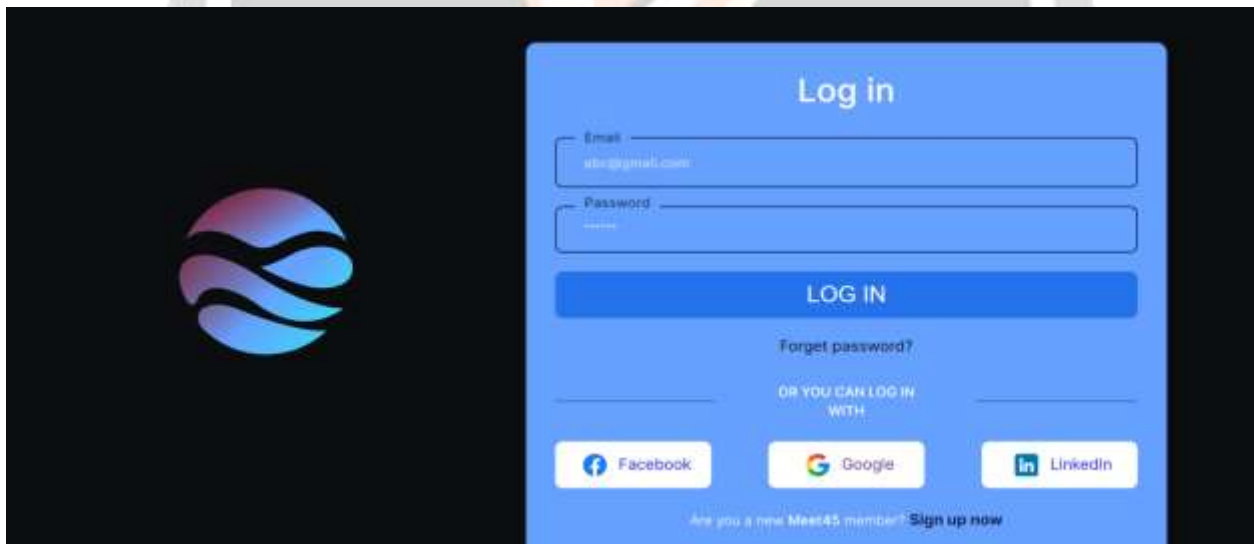
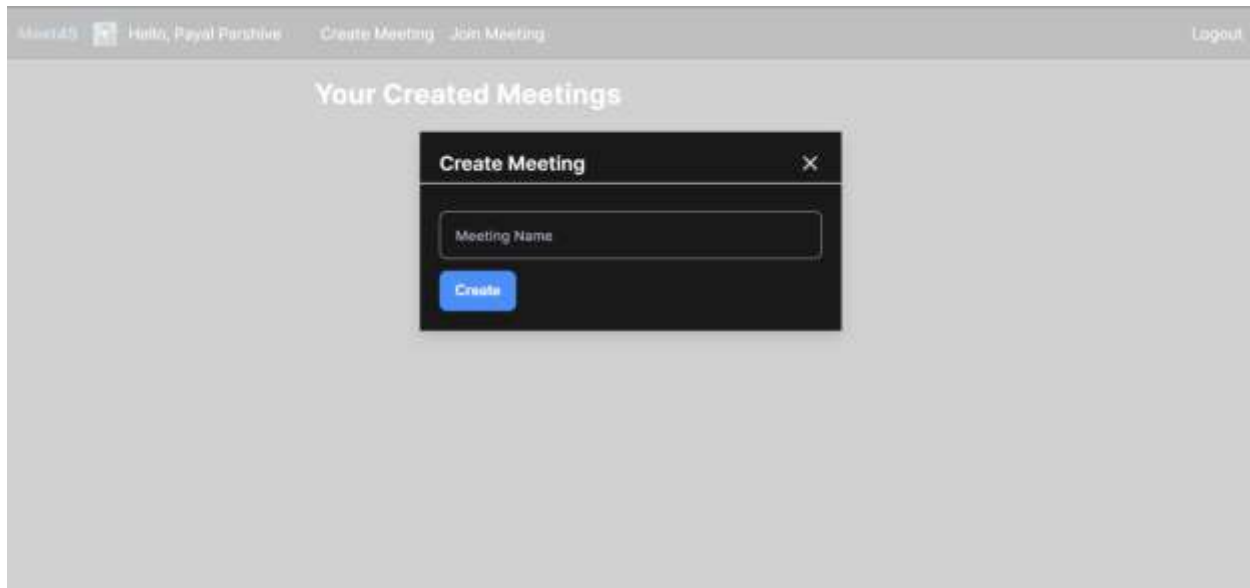


Fig -4, Demo Website



**Fig -5, Demo Website**

#### 4. TECHNOLOGY

Few technologies that are important in making the virtual coding interview platforms are-

i) Docker- A software platform called Docker makes it simple to develop, test, and deploy applications. Software is packaged by Docker [7] into standardised units called containers that contain all of the necessary code, libraries, system tools, and runtime. Using Docker, you can easily scale and deploy apps [7] into any environment while being certain that your code will work.

Docker runs by offering a standardised mechanism [7] for your code to execute. An operating system for containers is called Docker. Containers virtualize the operating system of a server in a manner similar to how a virtual machine virtualizes (eliminates the need to manage directly) server hardware. Each server has Docker installed, which offers straightforward instructions for building, starting, and stopping containers.

AWS technologies such as AWS Fargat [7], Amazon ECS [7], Amazon EKS [7], and AWS Batch make it easier to launch and manage Docker containers at scale.

ii) Web RTC- WebRTC (Web Real-Time Communication) is an open-source technology [8] that allows for real-time communication [8] and data sharing between browsers and devices. It allows for the transmission of audio [8], video [8], and data [8] through the internet.

WebRTC is an amazing specification that sets communication without the need of setting up any external installation [8] or plug-ins. With negligible latency, webRTC stimulates [8] exchanging of data from two different sources. This open-source protocol [8] is majorly supported by all browsers.

WebRTC incorporates communication technologies into web browsers through the use of JavaScript [8], APIs [8], and Hypertext Markup Language [8]. Its goal is to make audio, video, and data communication between browsers as easy and uncomplicated as possible. WebRTC is supported by the vast majority of common web browsers.

iii) Node.js and Express.js – Node.js is an open source [9], cross platform [9], Javascript run time [9] environment. It is the back end that runs in a runtime environment. It plays the big role in compiler building.

Express.js is use in building RESTful APIs [10] with Node.js which is a back-end web application framework [10]. It runs on run time environment. It works with Node.js to develop compiler.

## 5. FUTURE SCOPE

By including more languages, mock tests with multiple-choice questions, pseudocode, and other features like screen sharing in the interview part, we can make this online application better. By offering cutting-edge remote interview and recruiting solutions, we want to increase the effectiveness of interviews and hiring processes. The market for coding interview platforms has a lot of potential and a promising future.

The COVID-19 pandemic scenario has had a significant influence on coding interview platforms, encouraging students and businesses to use our platform for technical and non-technical interviews during the recruiting process.

The paper gives a thorough description of our Platform, including its operational benefits, functional domains, and market environment. Customers can concentrate on the most crucial factors and develop objectives using the previously mentioned criteria to compete in the global market.

## 6. CONCLUSION

For all candidates attending the interview, our application offers a testing and evaluation environment. We have created all the necessary functionality for applicant video interviews, management, and authentication. Interviewers may more efficiently hire applicants based on their coding skills thanks to the automatic scoring of code submissions. Via our platform, both the recruiter and the applicant receive the greatest interview experience with all the necessary tools for administering and assessing the tests and the interview in real time. The applicant no longer needs to be concerned with scheduling or expense issues because they can interact with recruiters from any location and have access to all the resources they could possibly need to improve their skills and comprehend market demands.

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