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JB Placement Assessment

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Abstract: *The placement assessment platform is a web-based application designed to facilitate the recruitment process for companies and organizations. The platform provides a user-friendly interface for students to take assessment tests, and evaluate candidate performance. Candidates can also use the platform to create profiles, take mock exams, and attend assessments. The placement assessment platform is an effective solution for organizations of all sizes looking to streamline their recruitment process and identify the most qualified candidates for their open positions. The placement assessment platform is a comprehensive solution for employers to assess the skills and capabilities of job candidates in a standardized and objective manner.*

I. INTRODUCTION

Many students want to use and experience how placement exams are conducted. Many students want to solve previous questions asked by companies. Sometimes our college needs to conduct coding tests for students. Online exams portal is a website which students can use for placement preparation. The web application helps the user and its mission is to offer a quick and easy way to appear for the e-Examination.

The e-Examination system ensures security by allowing only registered users with a valid username and password to access the exam. The exam consists of multiple choice questions with appropriate options. Immediate results are provided upon completion of the exam, allowing users to view their performance.

ReactJS is a popular open-source JavaScript library that is widely used for building user interfaces. Developed by Facebook, it allows developers to build complex and interactive web applications with ease. One of the main advantages of ReactJS is its component-based architecture, which allows developers to create reusable and modular UI components. This means that instead of writing long and complex HTML and JavaScript code, developers can create small and isolated components that can be reused across different parts of the application. This approach makes the development process more efficient and helps to reduce code duplication, making it easier to maintain and update the codebase.

Another notable feature of ReactJS is its ability to work with other libraries and frameworks. ReactJS is a highly versatile JavaScript library that can be seamlessly integrated with a multitude of other tools and libraries. Some popular examples include Redux, which is used for managing application state, GraphQL, which is a query language for APIs, and React Native, which is used for building mobile applications.

By utilizing these tools and libraries with ReactJS, developers are able to build a wide range of applications, including mobile apps and progressive web apps. By utilizing these tools and libraries with ReactJS, developers are able to build a wide range of applications, including mobile apps and progressive web apps. Overall, ReactJS is a powerful and versatile tool that has revolutionized the way developers build web applications. Its component-based architecture, virtual DOM, and flexibility make it an excellent choice for building complex and interactive user interfaces.

Django is a powerful web framework for Python that equips developers with an extensive array of tools and functionalities to build complex web applications rapidly and effectively. It offers many pre-built features, including middleware, templating, database management, URL routing, and more, that can be conveniently tailored to fit specific project requirements. It was originally developed by web developers at the Lawrence Journal-World newspaper, and is now maintained by the Django Software Foundation.

One of the key features of Django is its powerful and flexible Object-Relational Mapping (ORM) system, which allows developers to work with databases in a more intuitive and Pythonic way. The ORM provides an abstraction layer between the database and the application code, allowing developers to interact with the database using Python code, without having to write SQL queries manually. This makes it easier to manage the database and reduces the likelihood of errors.

II. PROPOSED METHODOLOGY

In the Figure a system is displayed with backend as Django in the center which sends the HTML , CSS pages to the frontend which is React js which then sends back the API requests while the Django retrieves the data from the database which is SQLite here.

Modules are important to have a precise overview on the development of the project process so that while execution clarity of the next step is maintained. JB Placement Assessment has following modules:

- 1) Authentication
- 2) Aptitude
- 3) Communication
- 4) Code Editor
- 5) Results

JB Placement Assessment comprises these three important modules. Below, you will find a detailed explanation of each module.

- a) *Authentication*: This module takes the user authentication for the first time user should register from then on the user gives his credentials for login .It provides access control for the system by checking to see if a user's credentials match the credentials in the database of authorized users or in a data authentication server.
- b) *Aptitude*: This module is used to conduct an aptitude exam which contains Aptitude questions.
- c) *Communication*: This module is used to conduct exams for the users like a communication test where an audio will be played and after completion of the audio questions will be asked based upon the audio.
- d) *Code Editor*: This module is used to conduct Coding exams where a programming question will be given and the user has to write code in-order to solve the question and user answered code will be tested for correct output.
- e) *Results*: Here in this module the students or users can see the results in the dashboard.

III. LITERATURE REVIEW

Many different researches have focused on the subject of an online examination system these work can be represented as following: In the context of SIETTE, to regenerate an adaptive test would mean to create a new version of the test that is adapted to the needs or performance of the individual user, based on their previous answers and feedback provided by the system. The regenerated test would be different from the original test but would still cover the same topics and assess the same learning objectives. This process of regeneration helps to personalize the learning experience and improve the accuracy of the assessment. It can be used for instructional objectives, via combining adaptive student self-assessment test questions with hints and feedback. The authors of the EMS (Exam Management System) paper, Rashad et al., state that SIETTE (an existing exam management system) provides secure login and portability features, but lacks other important features such as resumption capability, multi-instructor support, and various types of randomization (question selection, distribution, and choice distribution). In other words, Rashad et al. suggest that SIETTE is lacking in several key areas that are important for a comprehensive and effective exam management system. (2010) proposed a web-based online examination system called Exam Management System (EMS). EMS manages the examination and auto-grading for students exams and supports conducting exams, answers, specify the exam period, register students ,delete students , show questions for students randomly, calculate and show the final results for students.

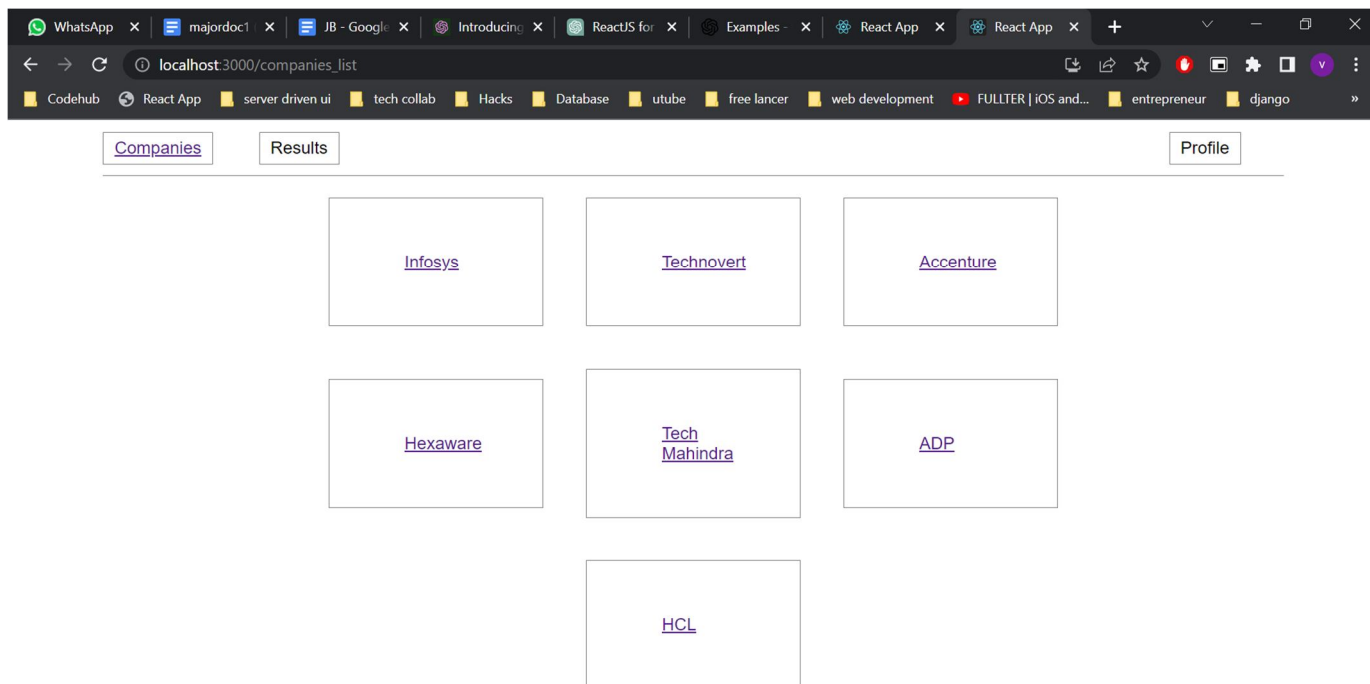
Alias et al. (2017) developed an online exam assessment system using open-source platforms. They used PHP and MySQL for the development of the system and tested it on a sample of students. The study found that the system was effective in conducting exams and grading them automatically. Huang et al. (2016) developed an online exam assessment system using cloud computing technology. The system was designed to be scalable and flexible, with the ability to handle a large number of students taking the exam simultaneously. The study found that the system was effective in reducing the administrative burden of exam administration.

Saleh et al. (2018) developed an online exam assessment platform for King Khalid University in Saudi Arabia. The system was designed to be easy to use and accessible to students and instructors. The study found that the platform was effective in improving the efficiency of exam administration and reducing the cost of exams. Alshammari (2019) conducted a literature review of online exam assessment systems. The review included studies on the benefits and challenges of online exam assessment systems and identified several key factors that can impact their effectiveness.

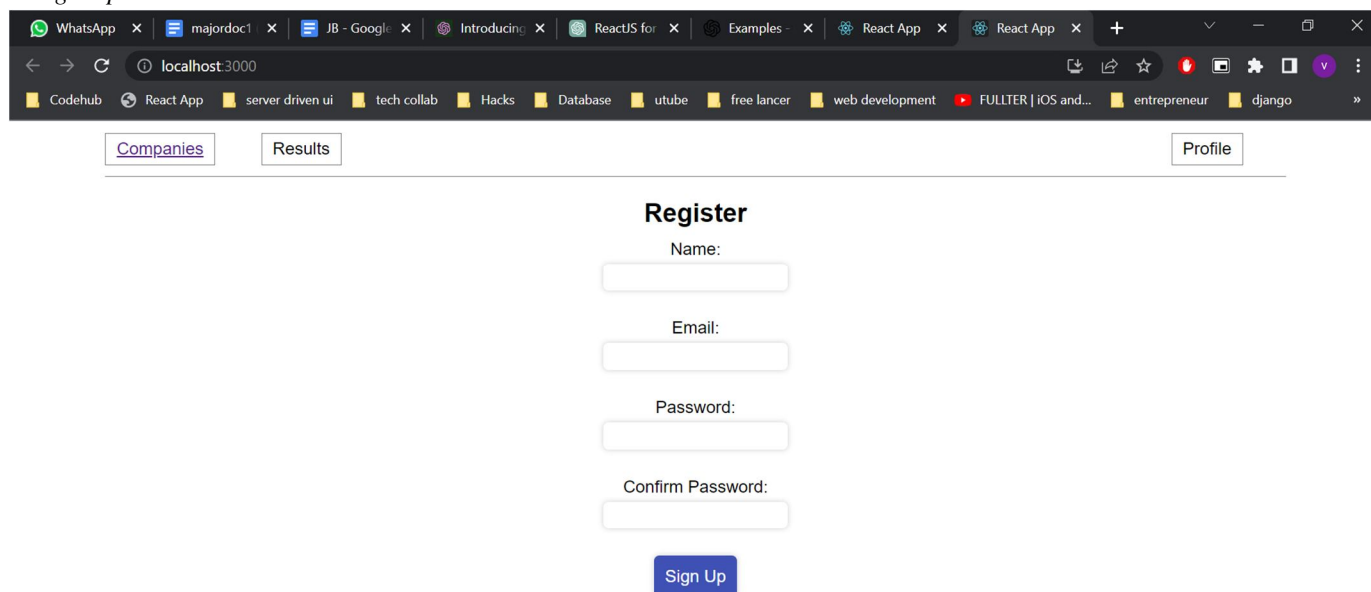
Njoku et al. (2020) conducted a systematic review of online assessment platforms. The review included studies on the effectiveness of various types of online assessment platforms, including platforms for objective and subjective assessments, and identified several key factors that can impact their effectiveness.

IV. RESULTS

A. Home Screen



B. Sign Up Screen





C. Sign In Screen

WhatsApp x majordoc1 x JB - Google x Introducing x ReactJS for x Examples x React App x React App x

localhost:3000/login

Codehub React App server driven ui tech collab Hacks Database utube free lancer web development FULLTER | iOS and... entrepreneur django

Companies Results Profile

Login

Email:

Password:

Sign In

D. Start Test Screen

WhatsApp x majordoc1 x JB - Google x Introducing x ReactJS for x Examples x React App x React App x

localhost:3000/Infosys_start_text

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Companies Results Profile

Candidates Instructions

Exam Pattern

Rounds

1. The question paper for the examination consists of 100 questions to be attempted in 1.5 hours(90 minutes) time.
2. It consists of Two rounds
Aptitude
Pseudo Coding Round
3. The Aptitude round consists of aptitude related questions
4. The time given for Aptitude round is 1 hour
5. The Pseudo Coding Round consists of 10 coding questions
6. The time given for programming round is 30 minutes

Start Test



E. Aptitude Exam Screen

WhatsApp x majordoc1 x JB - Google x Introducing x ReactJS for x Examples - x React App x React App x +

localhost:3000/apptitude_round

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Companies Results Profile

Aptitude

1 Question: In the class interval 13-23, 23 is known as ____.

☐ Frequency ☐ Class width

☐ Upper class limit ☐ Lower class limit

Pervious Next Submit

F. Communication Exam Screen

WhatsApp x majordoc1 x JB - Google x Introducing x ReactJS for x Examples - x React App x React App x +

localhost:3000/communication_test

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Companies Results Profile

Communication

Listen to the given audio carefully. The next three questions are based on the audio.

Note:

You will be allowed to listen to the Audio Only Once.

You would not be able to Pause the Audio in between.

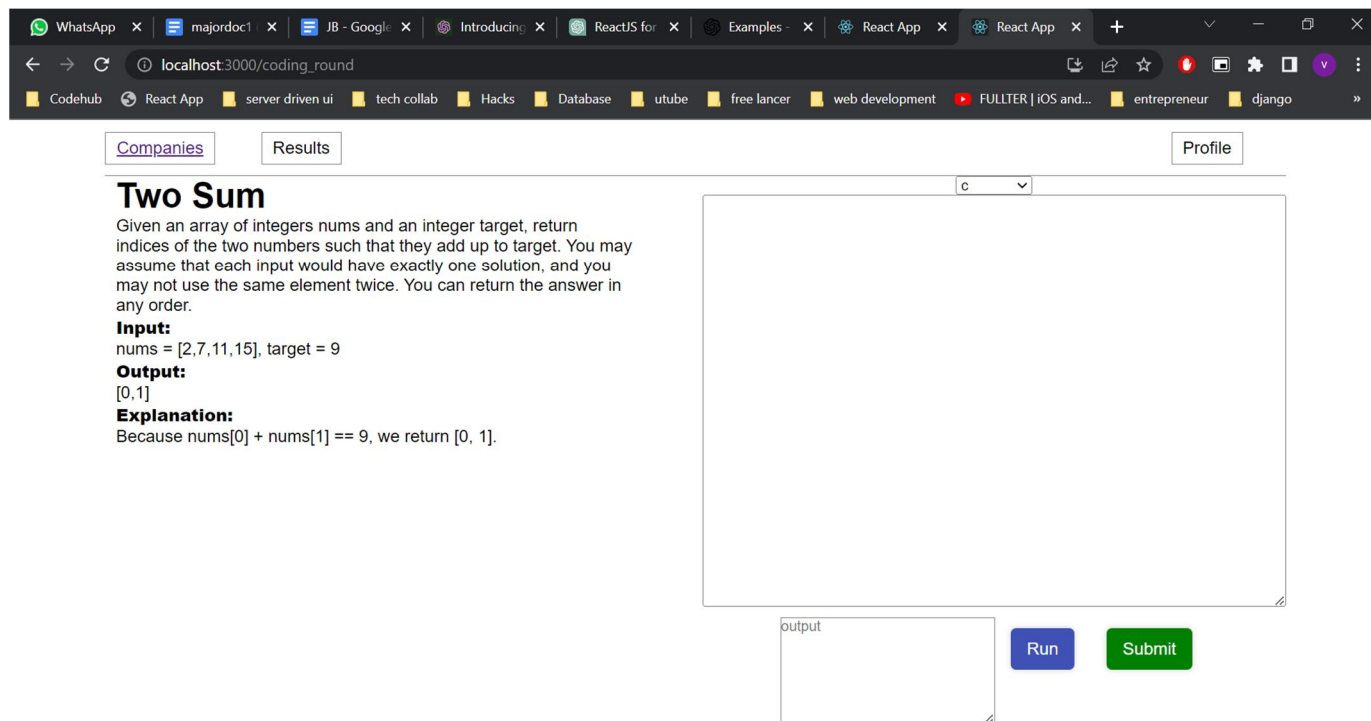
You would not able to Listen to the Audio again once you move on to the Answering Question

Click on the Next button to Start Answering Questions, Next button will be displayed after the audio played
(Listen to the audio carefully, take notes, if required).

you can play this media: 1 times

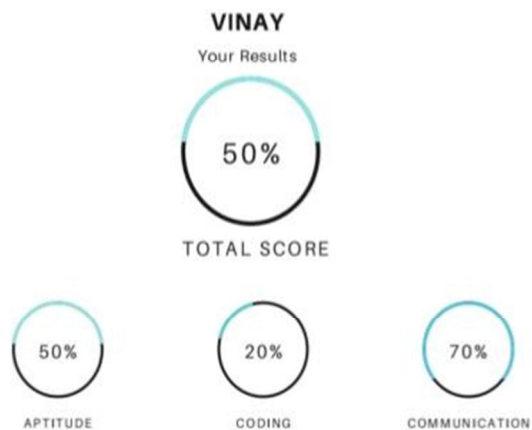
0:00 / 0:14

G. Code Editor



H. Student Individual Result Screen

Student Individual Result



I. All Students Results

CoCesid Name	RollNumb	Branch	Degree	Batch	Score/800	Ability	English	Quantitativ	Analytical	Domain	Inter Funda	Coding	Written Engl	Personality	Analyst	Service E	Enginee	Enginee	work Engi	Enginatio	Execlut	ware Develo	ware Engin	ware Test
3795681	19671A021	Electrical a	B. Tech.	2023	662	80%	80%	87%	73%	40%	60%	90%	74%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795682	19671A044	Electronics	B. Tech.	2023	649	80%	67%	100%	73%	60%	80%	82%	57%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795683	19671A196	Electrical a	B. Tech.	2023	641	67%	47%	80%	73%	75%	87%	100%	84%	oDEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795466	19671A054	Computer	B. Tech.	2023	629	64%	60%	73%	60%	70%	60%	93%	83%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795455	19671A052	Computer	B. Tech.	2023	602	62%	60%	60%	67%	65%	53%	97%	56%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795505	19671A059	Computer	B. Tech.	2023	598	62%	33%	67%	87%	55%	67%	61%	79%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795458	19671A053	Computer	B. Tech.	2023	596	60%	73%	53%	53%	65%	53%	83%	73%	oDEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795623	19671A193	Electronics	B. Tech.	2023	596	60%	60%	47%	73%	45%	80%	81%	63%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795488	19671A055	Computer	B. Tech.	2023	592	62%	67%	47%	73%	50%	67%	38%	69%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795459	19671A055	Computer	B. Tech.	2023	589	60%	60%	73%	47%	45%	60%	100%	61%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3663030	19671A193	Electrical a	B. Tech.	2023	589	60%	47%	80%	53%	15%	67%	97%	77%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795593	19671A044	Electronics	B. Tech.	2023	583	67%	60%	87%	53%	75%	67%	00%	75%	oDEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795485	19671A058	Computer	B. Tech.	2023	583	71%	87%	53%	73%	65%	67%	00%	55%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795501	19671A058	Computer	B. Tech.	2023	579	58%	93%	53%	27%	80%	60%	42%	68%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795453	19671A053	Computer	B. Tech.	2023	578	58%	47%	73%	53%	75%	53%	43%	86%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795498	19671A058	Computer	B. Tech.	2023	577	67%	73%	67%	60%	60%	87%	00%	59%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795726	19671A126	Information	B. Tech.	2023	577	64%	53%	60%	80%	70%	60%	00%	66%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3673410	19671A024	Electrical a	B. Tech.	2023	577	58%	33%	47%	93%	35%	73%	42%	86%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795508	19671A059	Computer	B. Tech.	2023	576	62%	60%	73%	53%	35%	73%	42%	67%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795752	19671A123	Information	B. Tech.	2023	575	62%	80%	40%	67%	25%	73%	42%	62%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795628	19671A193	Electrical a	B. Tech.	2023	575	67%	73%	67%	60%	55%	73%	10%	58%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795670	19671A024	Electrical a	B. Tech.	2023	574	69%	60%	80%	67%	55%	60%	10%	61%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795564	19671A044	Electronics	B. Tech.	2023	573	58%	53%	53%	67%	40%	73%	57%	65%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795549	19671A044	Electronics	B. Tech.	2023	572	56%	53%	53%	60%	50%	87%	38%	88%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795492	19671A055	Computer	B. Tech.	2023	572	64%	73%	60%	60%	40%	10%	64%	56%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795435	19671A059	Computer	B. Tech.	2023	569	64%	60%	73%	60%	60%	60%	10%	56%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795787	20675A039	Mechanical	B. Tech.	2023	568	64%	60%	60%	73%	75%	80%	00%	46%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795615	19671A198	Electrical a	B. Tech.	2023	567	60%	53%	60%	67%	60%	67%	43%	47%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795597	20675A044	Electronics	B. Tech.	2023	564	64%	67%	67%	60%	45%	40%	00%	68%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795684	19671A028	Electrical a	B. Tech.	2023	564	60%	73%	53%	53%	50%	73%	55%	29%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795673	19671A024	Electrical a	B. Tech.	2023	561	56%	67%	33%	67%	45%	27%	55%	77%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795480	19671A054	Computer	B. Tech.	2023	561	60%	47%	73%	60%	00%	40%	94%	54%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795476	19671A053	Computer	B. Tech.	2023	560	33%	13%	47%	40%	50%	87%	10%	56%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795598	20675A044	Electronics	B. Tech.	2023	560	58%	60%	33%	80%	50%	47%	35%	75%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795720	19671A126	Information	B. Tech.	2023	559	58%	73%	47%	53%	55%	53%	10%	67%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795596	19671A048	Electronics	B. Tech.	2023	559	60%	53%	53%	73%	50%	40%	43%	60%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795705	20675A022	Electrical a	B. Tech.	2023	557	58%	60%	60%	53%	50%	67%	10%	88%	UdEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795491	19671A055	Computer	B. Tech.	2023	556	51%	47%	47%	60%	55%	60%	75%	78%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795592	19671A048	Electronics	B. Tech.	2023	556	62%	33%	80%	73%	60%	60%	00%	58%	UdEST	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go
3795770	19671A033	Mechanical	B. Tech.	2023	554	58%	80%	27%	67%	00%	80%	45%	63%	oCEAT	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go	Good to go

V. CONCLUSIONS

The placement assessment platform is a powerful tool for organizations looking to improve their hiring processes and make more informed, data-driven hiring decisions. By providing standardized and objective assessments of candidate skills and capabilities, the platform helps to reduce biases and increase the accuracy of hiring decisions.

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