

PrashnaSetu

Think. Compete. Conquer.

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Introduction

PrashnaSetu is a **modern quiz management system** designed for educational institutions, blending traditional assessments with modern digital evaluation. Built using **JavaFX**, it offers secure, scalable, and user-friendly solutions for educators and students.

Purpose and Primary Features

Purpose:

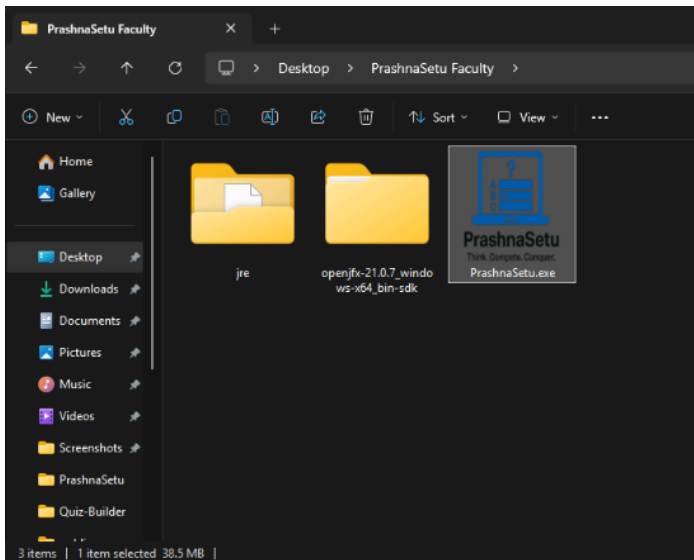
- Facilitate secure quiz administration
- Enable real-time monitoring for academic integrity
- Streamline quiz creation/management
- Generate robust performance analytics
- Support hierarchical user management (Admin, Instructor, Proctor, Student)

Key Features:

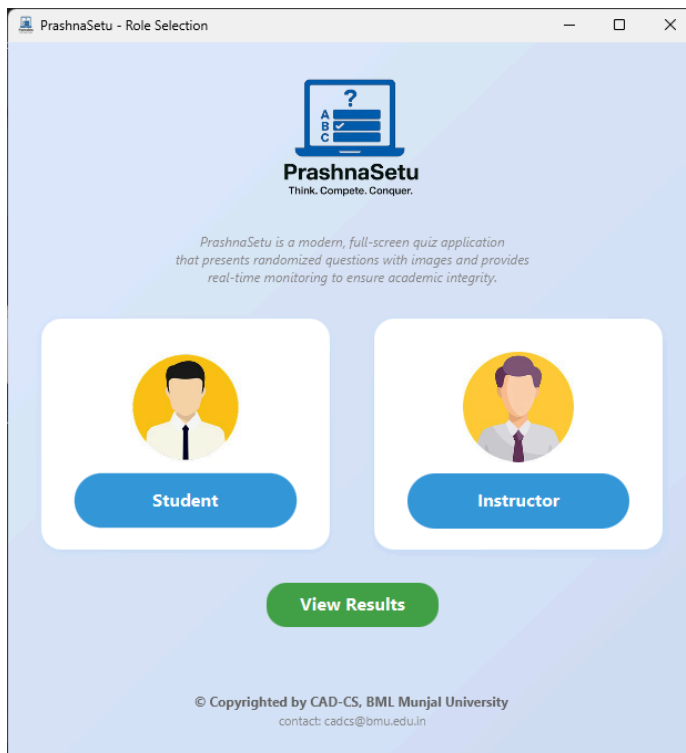
- Multi-role access control (RBAC)
- Advanced quiz engine: supports images, mathematical expressions
- Real-time proctoring/monitoring
- Detailed analytics and export capabilities
- Secured authentication
- Academic integrity tools: time limits, randomization, etc.

Starting the Application

1. Extract the distributed zip
2. Locate PrashnaSetu Executable file:



3. Run the executable file, upon running it the Role Selection screen will appear:

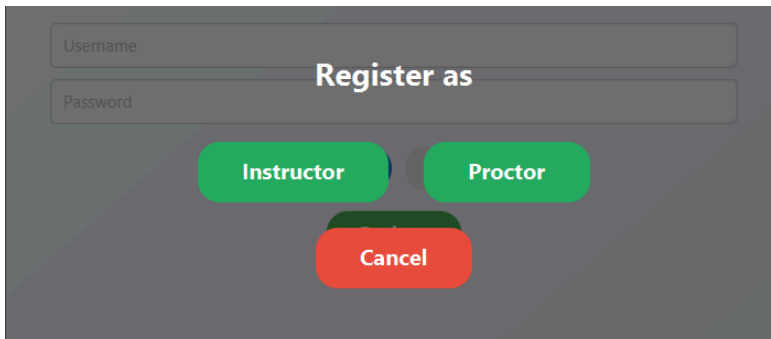




4. On the Role Selection Screen, select Instructor. This will redirect you to the Login Screen.

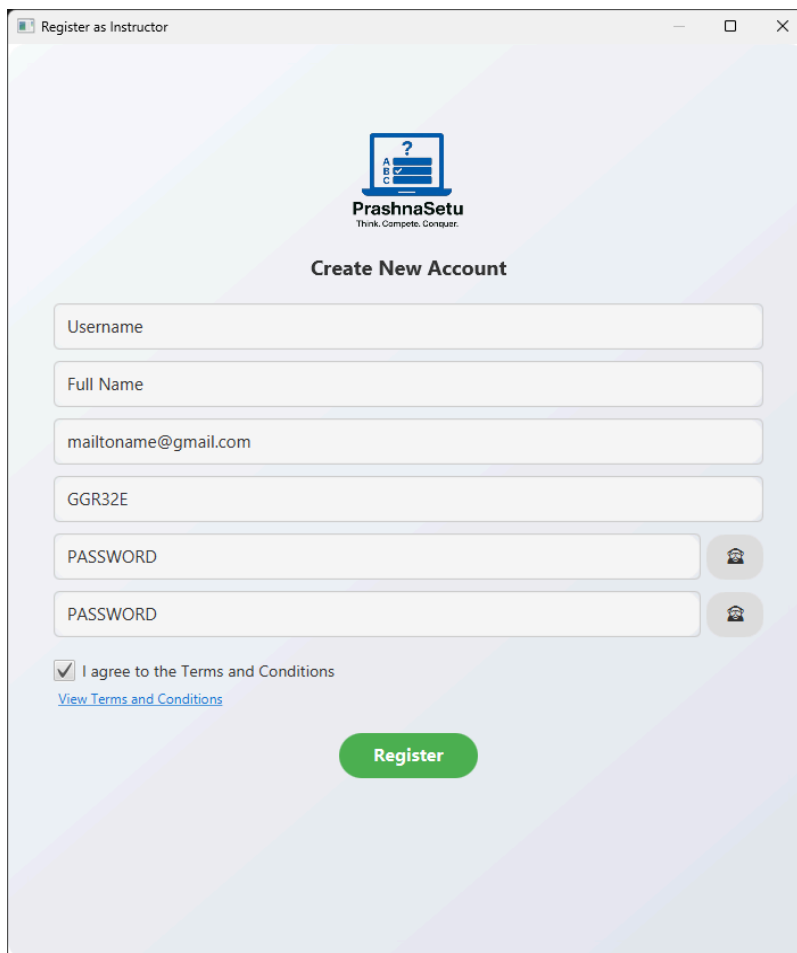
The screenshot shows the PrashnaSetu login interface within a web browser window titled 'PrashnaSetu - Login'. The page has a light blue and white background with diagonal stripes. At the top center is the PrashnaSetu logo and tagline. Below the logo, the text 'Login to your account' is displayed. There are two input fields: 'Username' and 'Password'. Below these fields are three buttons: a blue 'Login' button, a grey 'Back' button, and a green 'Register' button. At the bottom of the page, there is a copyright notice: '© Copyrighted by CAD-CS, BML Munjal University contact: cadcs@bmu.edu.in'.

5. If a **Username** and **Password** have been provided by the admin, log in using those credentials. Alternatively, click **Registration** and select **Proctor**.



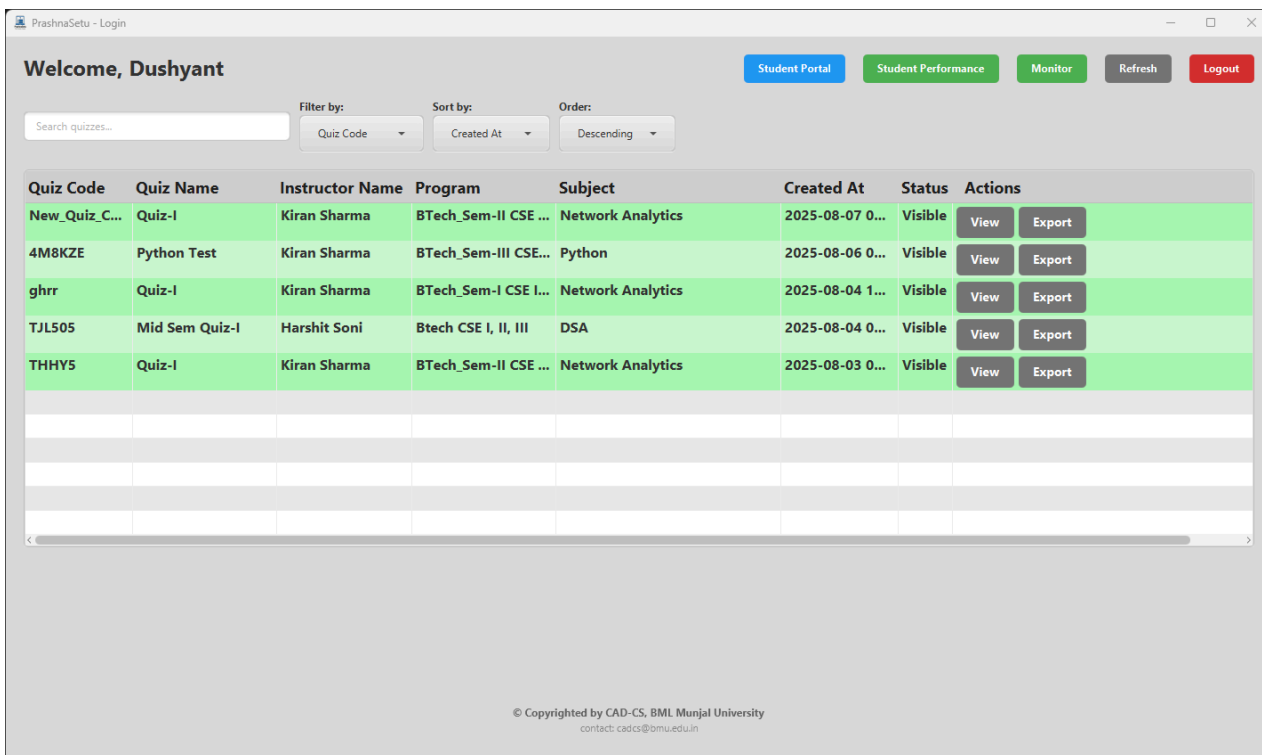
A registration modal form with a dark gray background. It features two input fields at the top: 'Username' and 'Password'. Below these fields is the text 'Register as' in white. Underneath, there are two green buttons labeled 'Instructor' and 'Proctor'. At the bottom center is a red button labeled 'Cancel'.

6. The **Registration Screen** will appear. Fill out the form with your desired credentials and the **registration code** provided by the admin to create an account.



A registration screen titled 'Register as Instructor' in the window header. It features the PrashnaSetu logo and the text 'Create New Account'. The form includes several input fields: 'Username', 'Full Name', 'mailtoname@gmail.com', 'GGR32E', 'PASSWORD', and another 'PASSWORD' field. There are also two circular icons with a person silhouette next to the password fields. Below the input fields is a checkbox labeled 'I agree to the Terms and Conditions' with a link 'View Terms and Conditions'. At the bottom center is a green button labeled 'Register'.

7. **Upon successful login, you'll be directed to the Proctor Dashboard.** For detailed information on its features and functionalities, refer to the *Proctor Dashboard* section of this guide.



Welcome, Dushyant

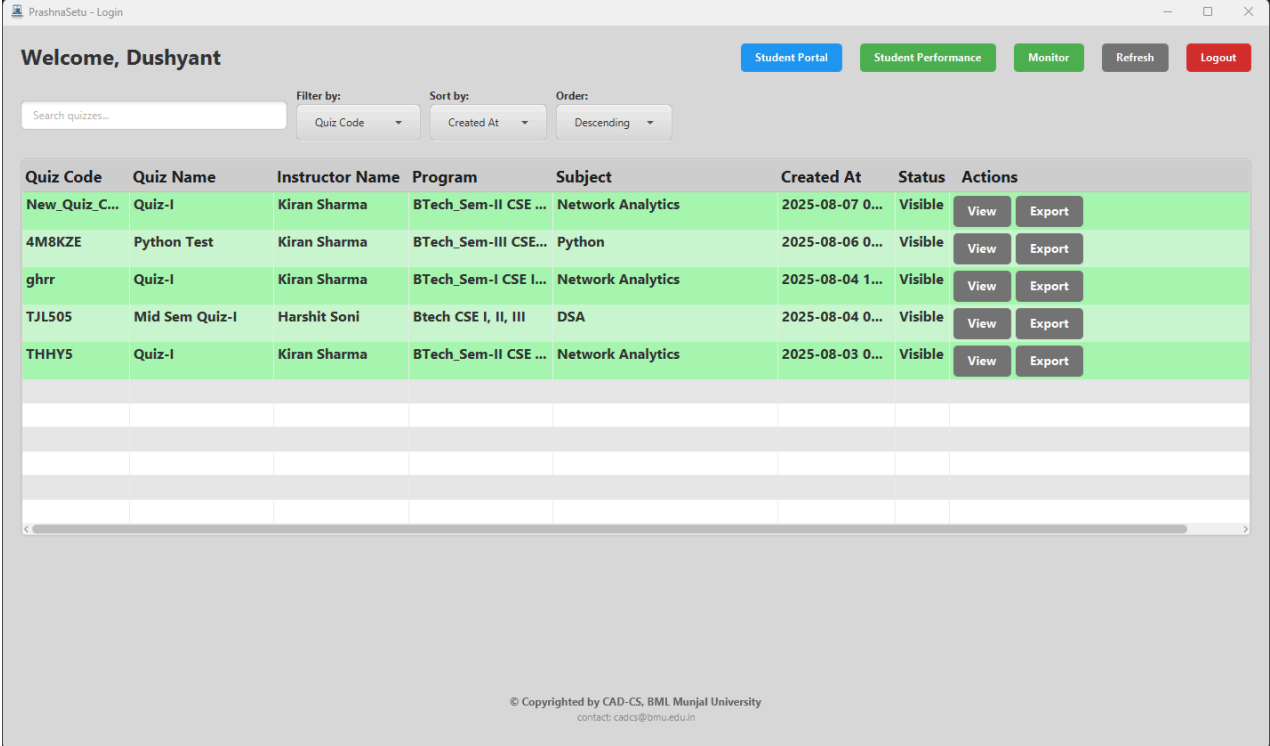
Search quizzes...

Filter by: Quiz Code Sort by: Created At Order: Descending

| Quiz Code | Quiz Name | Instructor Name | Program | Subject | Created At | Status | Actions |
|---------------|----------------|-----------------|----------------------|-------------------|-----------------|---------|-------------|
| New_Quiz_C... | Quiz-I | Kiran Sharma | BTech_Sem-II CSE ... | Network Analytics | 2025-08-07 0... | Visible | View Export |
| 4M8KZE | Python Test | Kiran Sharma | BTech_Sem-III CSE... | Python | 2025-08-06 0... | Visible | View Export |
| ghrr | Quiz-I | Kiran Sharma | BTech_Sem-I CSE I... | Network Analytics | 2025-08-04 1... | Visible | View Export |
| TJL505 | Mid Sem Quiz-I | Harshit Soni | Btech CSE I, II, III | DSA | 2025-08-04 0... | Visible | View Export |
| THHY5 | Quiz-I | Kiran Sharma | BTech_Sem-II CSE ... | Network Analytics | 2025-08-03 0... | Visible | View Export |

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contact: cadcs@bmlu.edu.in

Proctor Dashboard



PrashnaSetu - Login

Welcome, Dushyant

Student Portal Student Performance Monitor Refresh Logout

Search quizzes...

Filter by: Quiz Code Sort by: Created At Order: Descending

| Quiz Code | Quiz Name | Instructor Name | Program | Subject | Created At | Status | Actions |
|---------------|----------------|-----------------|----------------------|-------------------|-----------------|---------|-------------|
| New_Quiz_C... | Quiz-I | Kiran Sharma | BTech_Sem-II CSE ... | Network Analytics | 2025-08-07 0... | Visible | View Export |
| 4M8KZE | Python Test | Kiran Sharma | BTech_Sem-III CSE... | Python | 2025-08-06 0... | Visible | View Export |
| ghrr | Quiz-I | Kiran Sharma | BTech_Sem-I CSE I... | Network Analytics | 2025-08-04 1... | Visible | View Export |
| TJL505 | Mid Sem Quiz-I | Harshit Soni | Btech CSE I, II, III | DSA | 2025-08-04 0... | Visible | View Export |
| THHY5 | Quiz-I | Kiran Sharma | BTech_Sem-II CSE ... | Network Analytics | 2025-08-03 0... | Visible | View Export |
| | | | | | | | |
| | | | | | | | |
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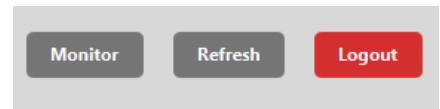
The **Proctor Dashboard** displays all quizzes that are currently toggled to **Visible**, organized in a tabular format for easy access and monitoring

Various general and quiz-specific functions can be accessed from the Proctor Dashboard.

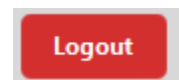
- General functions include: Refresh, and Logout.
- Quiz-specific functions include: View Quiz, Export Quiz, Monitor, and Student Performance.

General Functions

- Refresh
 - Updates the quiz table with the latest data from the database.

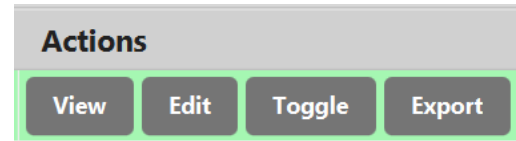


- Logout
 - By clicking the Logout button users can securely log out of their current session.

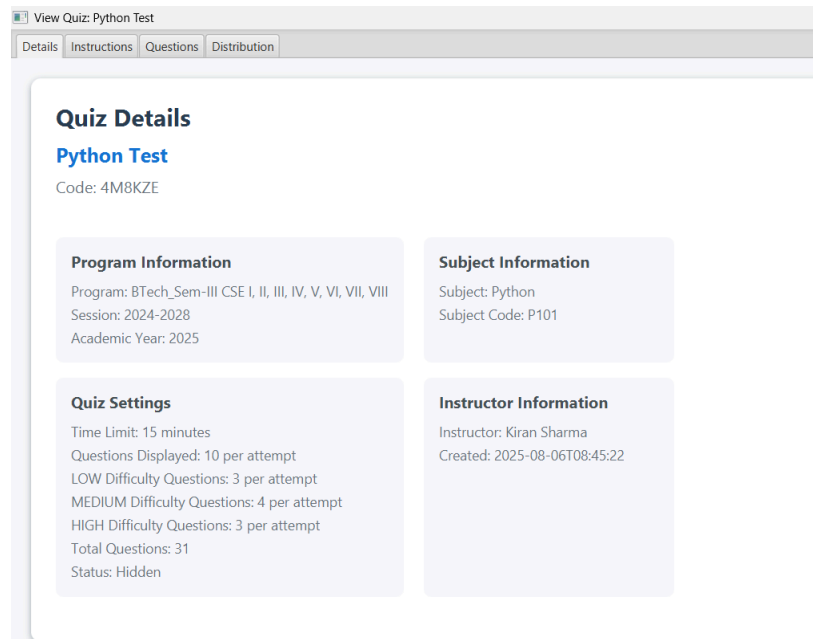


Quiz Specific Functions

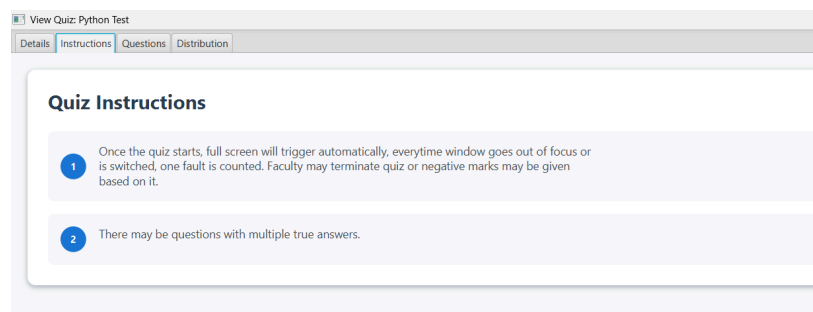
- View Quiz
 - By using the **View Quiz** button, users can quickly view quiz details divided into four sections for easy access:



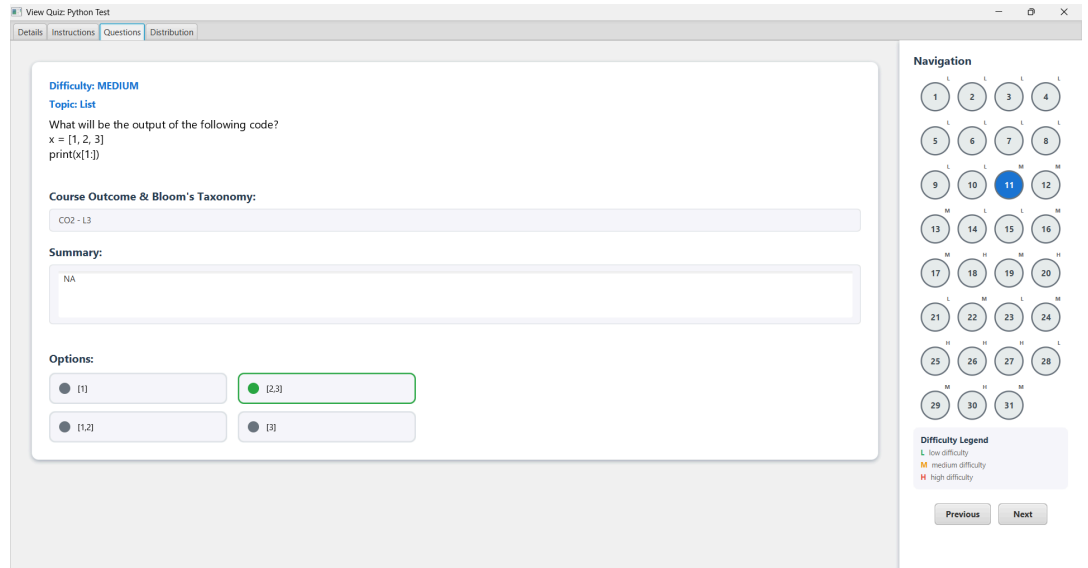
- **Details:** Displays program information (course, batch, section, and semester the quiz is intended for), subject information, quiz settings (time limit, total number of questions, difficulty-wise distribution per attempt), and instructor information.



- **Instructions:** Displays the instructions for the quiz.



- **Questions:** Displays all questions that are part of the quiz. (Note: The total number of questions may be higher than the number shown to students, as a shuffled subpool is served per attempt.)



View Quiz: Python Test

Details | Instructions | Questions | Distribution

Difficulty: MEDIUM
Topic: List

What will be the output of the following code?
x = [1, 2, 3]
print(x[1:])

Course Outcome & Bloom's Taxonomy:
CO2 - L3

Summary:
NA

Options:

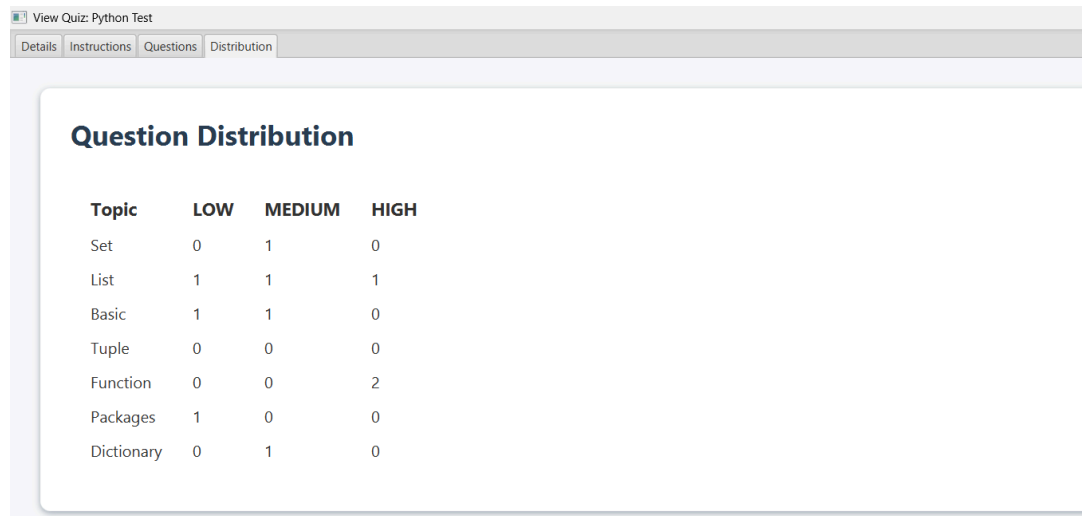
☐ [1] ☒ [2,3] ☐ [1,2] ☐ [3]

Navigation

Difficulty Legend
L low difficulty
M medium difficulty
H high difficulty

Previous Next

- **Question Distribution:** Displays the number of questions served to the student, categorized by difficulty and topic.



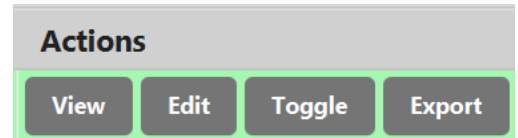
View Quiz: Python Test

Details | Instructions | Questions | Distribution

Question Distribution

| Topic | LOW | MEDIUM | HIGH |
|------------|-----|--------|------|
| Set | 0 | 1 | 0 |
| List | 1 | 1 | 1 |
| Basic | 1 | 1 | 0 |
| Tuple | 0 | 0 | 0 |
| Function | 0 | 0 | 2 |
| Packages | 1 | 0 | 0 |
| Dictionary | 0 | 1 | 0 |

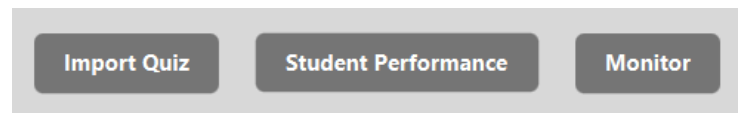
- **Export Quiz**
 - Allows the quiz to be exported as a ZIP file for record-keeping, backup, and future reference.



- **Monitor**
 - For details on monitoring quizzes, refer to the Monitor section of this manual.

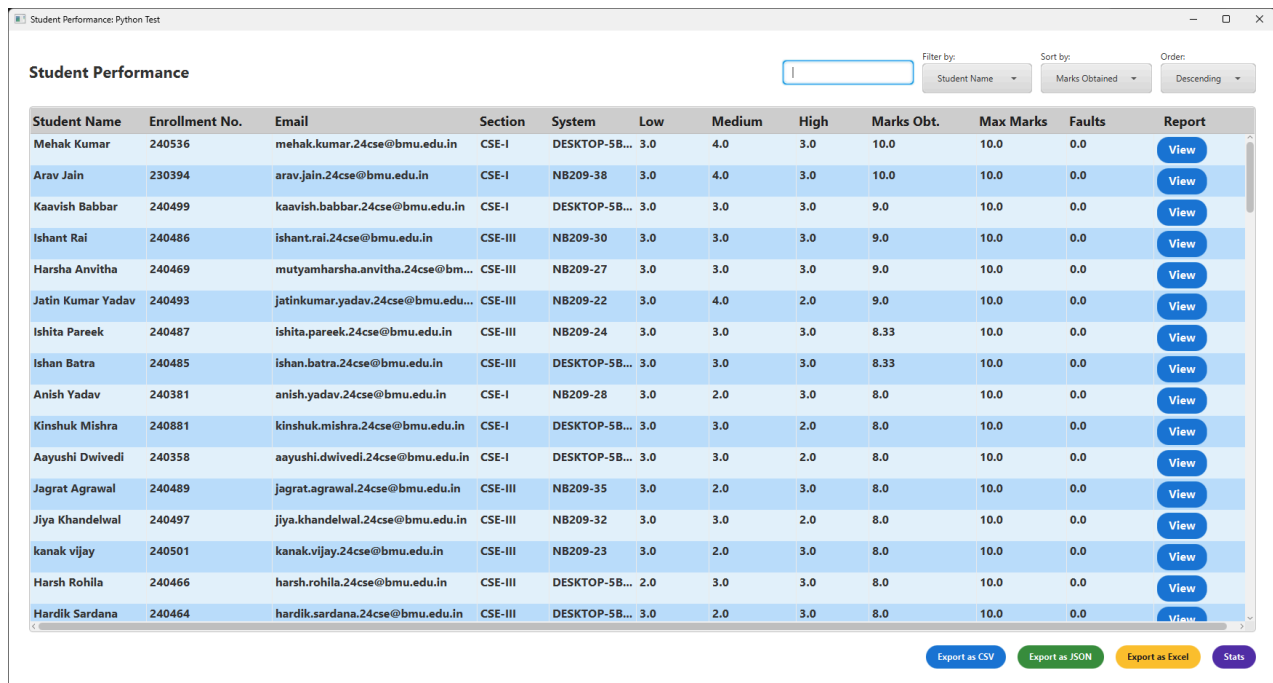


- **Student Performance**
 - For details on Student Performance and Results refer to the Student Performance section of this manual.



Student Performance

The **Student Performance** screen can be accessed by clicking the **Student Performance** button on the Proctor Dashboard. Once clicked, the following screen will appear:



Student Performance

Filter by: Student Name Marks Obtained Order: Descending

| Student Name | Enrollment No. | Email | Section | System | Low | Medium | High | Marks Obt. | Max Marks | Faults | Report |
|-------------------|----------------|-----------------------------------|---------|---------------|-----|--------|------|------------|-----------|--------|----------------------|
| Mehak Kumar | 240536 | mehak.kumar.24cse@bmu.edu.in | CSE-I | DESKTOP-5B... | 3.0 | 4.0 | 3.0 | 10.0 | 10.0 | 0.0 | View |
| Arav Jain | 230394 | arav.jain.24cse@bmu.edu.in | CSE-I | NB209-38 | 3.0 | 4.0 | 3.0 | 10.0 | 10.0 | 0.0 | View |
| Kaavish Babbar | 240499 | kaavish.babbar.24cse@bmu.edu.in | CSE-I | DESKTOP-5B... | 3.0 | 3.0 | 3.0 | 9.0 | 10.0 | 0.0 | View |
| Ishant Rai | 240486 | ishant.ra.24cse@bmu.edu.in | CSE-III | NB209-30 | 3.0 | 3.0 | 3.0 | 9.0 | 10.0 | 0.0 | View |
| Harsha Anvitha | 240469 | mutyamharsha.anvitha.24cse@bm... | CSE-III | NB209-27 | 3.0 | 3.0 | 3.0 | 9.0 | 10.0 | 0.0 | View |
| Jatin Kumar Yadav | 240493 | jatinkumar.yadav.24cse@bmu.edu... | CSE-III | NB209-22 | 3.0 | 4.0 | 2.0 | 9.0 | 10.0 | 0.0 | View |
| Ishita Pareek | 240487 | ishita.pareek.24cse@bmu.edu.in | CSE-III | NB209-24 | 3.0 | 3.0 | 3.0 | 8.33 | 10.0 | 0.0 | View |
| Ishan Batra | 240485 | ishan.batra.24cse@bmu.edu.in | CSE-III | DESKTOP-5B... | 3.0 | 3.0 | 3.0 | 8.33 | 10.0 | 0.0 | View |
| Anish Yadav | 240381 | anish.yadav.24cse@bmu.edu.in | CSE-I | NB209-28 | 3.0 | 2.0 | 3.0 | 8.0 | 10.0 | 0.0 | View |
| Kinshuk Mishra | 240881 | kinshuk.mishra.24cse@bmu.edu.in | CSE-I | DESKTOP-5B... | 3.0 | 3.0 | 2.0 | 8.0 | 10.0 | 0.0 | View |
| Aayushi Dwivedi | 240358 | aayushi.dwivedi.24cse@bmu.edu.in | CSE-I | DESKTOP-5B... | 3.0 | 3.0 | 2.0 | 8.0 | 10.0 | 0.0 | View |
| Jagrat Agrawal | 240489 | jagrat.agrawal.24cse@bmu.edu.in | CSE-III | NB209-35 | 3.0 | 2.0 | 3.0 | 8.0 | 10.0 | 0.0 | View |
| Jiya Khandelwal | 240497 | jiya.khandelwal.24cse@bmu.edu.in | CSE-III | NB209-32 | 3.0 | 3.0 | 2.0 | 8.0 | 10.0 | 0.0 | View |
| kanak vijay | 240501 | kanak.vijay.24cse@bmu.edu.in | CSE-III | NB209-23 | 3.0 | 2.0 | 3.0 | 8.0 | 10.0 | 0.0 | View |
| Harsh Rohila | 240466 | harsh.rohila.24cse@bmu.edu.in | CSE-III | DESKTOP-5B... | 2.0 | 3.0 | 3.0 | 8.0 | 10.0 | 0.0 | View |
| Hardik Sardana | 240464 | hardik.sardana.24cse@bmu.edu.in | CSE-III | DESKTOP-5B... | 3.0 | 2.0 | 3.0 | 8.0 | 10.0 | 0.0 | View |

Export as CSV Export as JSON Export as Excel Stats

The table displays the following details for each student: **Name**, **Enrollment Number**, **Email Address**, **Section**, **System Name**, number of correct answers by **Low/Medium/High Difficulty**, **Marks Obtained**, **Maximum Marks**, and **Fullscreen Faults**.

Export as CSV

Export as JSON

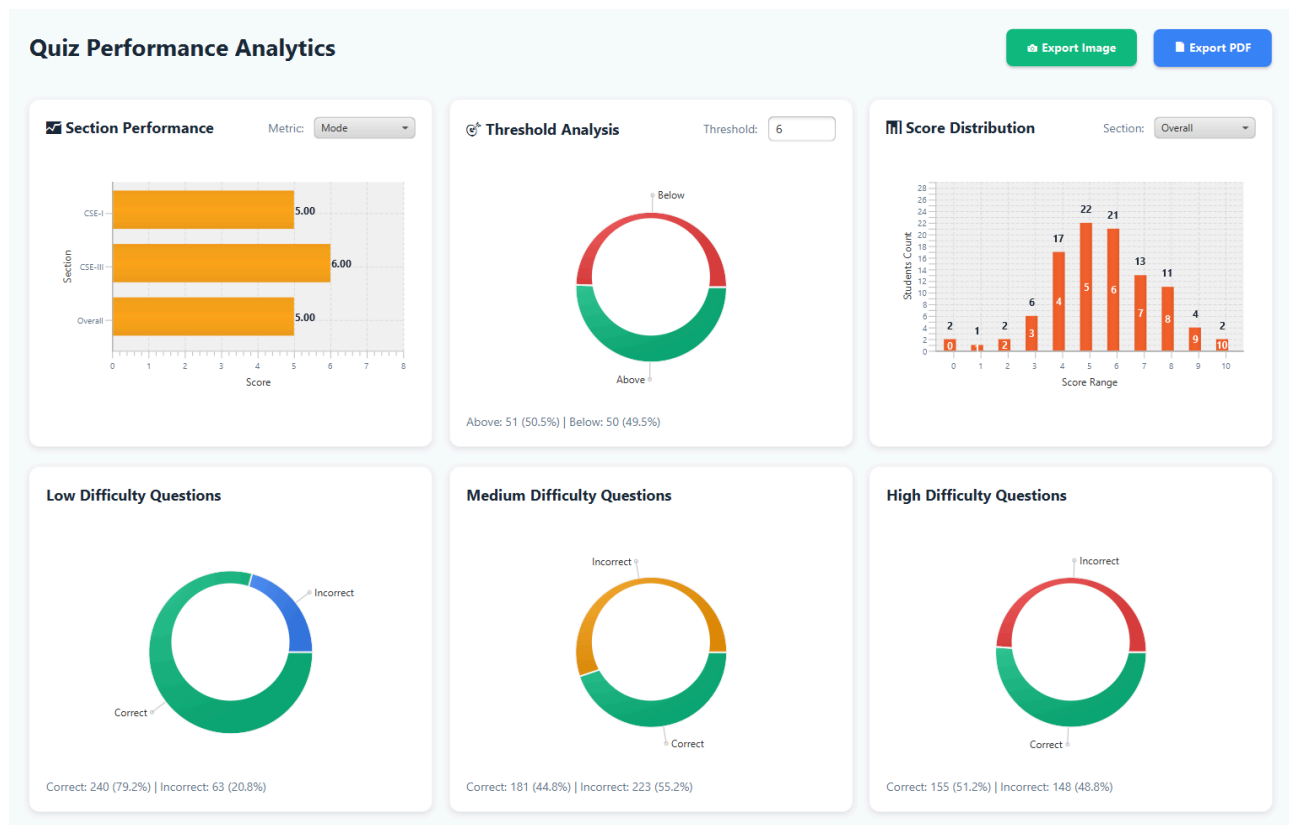
Export as Excel

This table can be exported in **CSV**, **JSON**, or **Excel** format.

Export as Excel

Stats

By clicking the **Stats** button located at the bottom-left of the screen, you can access **analytics based on student performance data**. These insights help visualize trends, identify strengths and weaknesses, and support data-driven decision-making.



The analytics can be exported as an **image** or **PDF** using the **Export Image** or **Export PDF** buttons.

Export Image

Export PDF

Detailed individual student results can be viewed by clicking the **View** button in the **Report** column.

Detailed Report: Jatin Kumar Yadav

Quiz Results

Marks Obtained: 9.00 / 10

SummaryQuestions

Student Information

Name: Jatin Kumar Yadav
Enrollment: 240493
Section: CSE-III

Quiz Information

Quiz Name: Python Test
Subject: Python
Course: BTech_Sem-III CSE I, II, III, IV, V, VI, VII, VIII
Time Limit: 15 minutes

Results Summary

Total Score: 9.00 / 10
Percentage: 90.0%
Questions Attempted: 10

Difficulty-based Results

Correct LOW difficulty questions: 3 / 3
Correct MEDIUM difficulty questions: 4 / 4
Correct HIGH difficulty questions: 2 / 3

Export PDFSend Email

The report can be saved as a **PDF** by clicking the **Export PDF** button.

Detailed Report: Jatin Kumar Yadav

Quiz Results

Marks Obtained: 9.00 / 10

SummaryQuestions

Question 7

Score: 1.00

Difficulty: LOW

Which of the following libraries is used for numerical computations in Python?

Course Outcome & Bloom's Taxonomy: CO1 - L2

Summary: NA

Options:

☐ seaborn

☐ seaborn

☒ **numpy**

☐ Scikit

Question Navigation

L M M H L

1 2 3 4 5

M L H H M

6 7 8 9 10

Difficulty Legend

L low difficulty

M medium difficulty

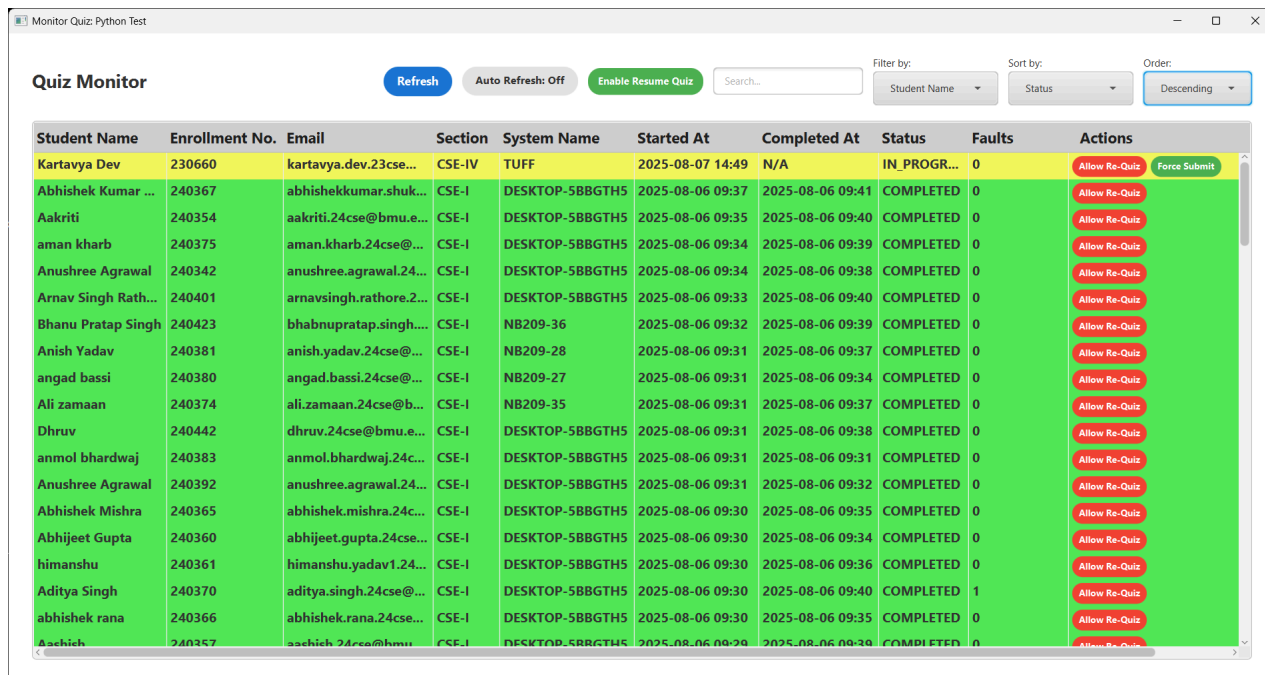
H high difficulty

PreviousNext

Export PDFSend Email

Monitor

The **Monitor** screen can be accessed by clicking the **Monitor** button on the Proctor Dashboard. The **Monitor** screen allows to **actively supervise students during live quizzes**, ensuring academic integrity and quick response to any issues. Once clicked, the following screen will appear:



The screenshot shows the 'Monitor Quiz: Python Test' interface. It includes a 'Quiz Monitor' header with buttons for 'Refresh', 'Auto Refresh: Off', and 'Enable Resume Quiz'. There are also filters for 'Student Name', 'Status', and 'Order' (set to 'Descending'). The main table displays student details and quiz progress.

| Student Name | Enrollment No. | Email | Section | System Name | Started At | Completed At | Status | Faults | Actions |
|---------------------|----------------|-------------------------|---------|-----------------|------------------|------------------|-------------|--------|-----------------------------|
| Kartavya Dev | 230660 | kartavya.dev.23cse... | CSE-IV | TUFF | 2025-08-07 14:49 | N/A | IN_PROGR... | 0 | Allow Re-Quiz, Force Submit |
| Abhishek Kumar ... | 240367 | abhishekkumar.shuk... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:37 | 2025-08-06 09:41 | COMPLETED | 0 | Allow Re-Quiz |
| Aakriti | 240354 | aakriti.24cse@bmu.e... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:35 | 2025-08-06 09:40 | COMPLETED | 0 | Allow Re-Quiz |
| aman kharb | 240375 | aman.kharb.24cse@... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:34 | 2025-08-06 09:39 | COMPLETED | 0 | Allow Re-Quiz |
| Anushree Agrawal | 240342 | anushree.agrawal.24... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:34 | 2025-08-06 09:38 | COMPLETED | 0 | Allow Re-Quiz |
| Arnav Singh Rath... | 240401 | arnavsingh.rathore.2... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:33 | 2025-08-06 09:40 | COMPLETED | 0 | Allow Re-Quiz |
| Bhanu Pratap Singh | 240423 | bhabnupratap.singh... | CSE-I | NB209-36 | 2025-08-06 09:32 | 2025-08-06 09:39 | COMPLETED | 0 | Allow Re-Quiz |
| Anish Yadav | 240381 | anish.yadav.24cse@... | CSE-I | NB209-28 | 2025-08-06 09:31 | 2025-08-06 09:37 | COMPLETED | 0 | Allow Re-Quiz |
| angad bassi | 240380 | angad.bassi.24cse@... | CSE-I | NB209-27 | 2025-08-06 09:31 | 2025-08-06 09:34 | COMPLETED | 0 | Allow Re-Quiz |
| Ali zamaan | 240374 | ali.zamaan.24cse@b... | CSE-I | NB209-35 | 2025-08-06 09:31 | 2025-08-06 09:37 | COMPLETED | 0 | Allow Re-Quiz |
| Dhruv | 240442 | dhruv.24cse@bmu.e... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:31 | 2025-08-06 09:38 | COMPLETED | 0 | Allow Re-Quiz |
| anmol bhardwaj | 240383 | anmol.bhardwaj.24c... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:31 | 2025-08-06 09:31 | COMPLETED | 0 | Allow Re-Quiz |
| Anushree Agrawal | 240392 | anushree.agrawal.24... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:31 | 2025-08-06 09:32 | COMPLETED | 0 | Allow Re-Quiz |
| Abhishek Mishra | 240365 | abhishek.mishra.24c... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:30 | 2025-08-06 09:35 | COMPLETED | 0 | Allow Re-Quiz |
| Abhijeet Gupta | 240360 | abhijeet.gupta.24cse... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:30 | 2025-08-06 09:34 | COMPLETED | 0 | Allow Re-Quiz |
| himanshu | 240361 | himanshu.yadav1.24... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:30 | 2025-08-06 09:36 | COMPLETED | 0 | Allow Re-Quiz |
| Aditya Singh | 240370 | aditya.singh.24cse@... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:30 | 2025-08-06 09:40 | COMPLETED | 1 | Allow Re-Quiz |
| abhishek rana | 240366 | abhishek.rana.24cse... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:30 | 2025-08-06 09:35 | COMPLETED | 0 | Allow Re-Quiz |
| Aashish | 240357 | aashish.24cse@bmu... | CSE-I | DESKTOP-5BBGTH5 | 2025-08-06 09:29 | 2025-08-06 09:39 | COMPLETED | 0 | Allow Re-Quiz |

- The table displays the following details for each student: **Name, Enrollment Number, Email Address, Section, System Name, Started At, Completed At, Status** and **Fullscreen Faults**.
- The table automatically refreshes every 5 seconds. This can be turned off by toggling **Auto Refresh to Off**. The table can also be manually refreshed using the **Refresh** button.
- If a student is caught cheating or using unfair means, their quiz can be forcefully terminated by clicking the **Force Submit** button in the **Actions** column. The marks will be calculated based on the options selected up to that point.
- In case of unforeseen circumstances such as a system crash or server failure, the **Resume Quiz** button can be toggled to **Enable**, allowing students to resume the quiz from the last saved point. (*Student responses and remaining time are synced every 5 seconds or whenever an option is selected.*)
- If a student is to be allowed a fresh reattempt, this can be done by clicking the **Allow Re-Quiz** button in the **Actions** column.



Contact & Support

If you encounter any issues while using PrashnaSetu or need assistance with setup, monitoring, or troubleshooting, please reach out through the following channels:

- **Primary Contact:** Center for Advanced Data and Computational Science BMU
- **Email:** cadcs@bmu.edu.in
- **Department:** CAD-CS, BML Munjal University
- **Secondary Contact:** Harshit Soni
- **Email:** harshit.soni.23cse@bmu.edu.in

Document Version: 1.0

Last Updated: July 2025

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**